

Y O R K



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**HUNGATE DEVELOPMENT,  
YORK**

**REPORT ON AN  
ARCHAEOLOGICAL  
EVALUATION**

Vol 2 Appendices

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**HUNGATE DEVELOPMENT,  
YORK**

**REPORT ON AN  
ARCHAEOLOGICAL EVALUATION**

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## **7. POTTERY REPORT**

### **7.1 Pottery Key**

The following abbreviations have been used throughout this pottery report.

BLK = Black ware  
BRAND = Brandsby-type ware  
BRN = Brown wares  
CIST = Cistercian ware  
CMW = Coal measures ware  
ESTN = English stoneware  
GW = Gritty ware  
HAMB= Hambleton ware  
HUM = Humber ware  
IMP = unidentified import  
LCRW = Low Countries red ware  
M = Modern  
PING = Pingsdorf ware  
PMEW = post-medieval earthenware  
PMRW = Post medieval red ware  
PORC = Porcelain  
PURP = Purple-glazed ware  
R = Roman  
ROUEN = Rouen ware  
RYE = Ryedale  
SH = Shelly ware  
SLIP = Slip wares  
SPL = Splashed ware  
SRW = Sandy red ware  
STAM = Stamford ware  
STN = German stoneware  
TGEW = Tin glazed earthenware  
TW = Torksey-type ware  
WALM = Walmgate-type ware  
WILL = Willow pattern  
YGW = York Glazed ware  
YRED = Yorkshire red ware  
YW = York ware

## 7.2 Trench 1

A single undiagnostic, unidentified sherd was recovered from this trench.

| Context | No of sherds | Spot date | Description  |
|---------|--------------|-----------|--|
| 1000    | 1            | ?         | Too small and anonymous to comment. Probably Medieval in date. |

## 7.3 Trench 8

The sequence begins with a few small sherds of Roman pottery. Of interest amongst these is a sherd which has been made into a counter (sf23 from context 8036). This is only the third example recognised in York of a type of Roman glazed ware imported possibly from the Rhineland (Monaghan 1997, 882 (Fig 325-6)) in the late 2<sup>nd</sup> or early 3<sup>rd</sup> century. The remaining Roman material is typical of the 2<sup>nd</sup> and 3<sup>rd</sup> centuries.

There is no material of the Anglian period but a good sequence, starting c.850, of Anglo-Scandinavian wares. These include York ware, Shelly ware, Torksey- type ware and Stamford ware. The sequence continues into the Norman period with splashed and Gritty wares. Beyond the late 12<sup>th</sup> century the ceramic sequence is less clear cut but most of the major types of York's medieval pottery is represented.

| Context | no of sherds | Spot date                             | Description                                  |
|---------|--------------|---------------------------------------|--|
| 8000    | 22           | 11/12-15/16 <sup>th</sup>             | SPL, YGW, BRAND, STAM, HUM                   |
| 8003    | 14           | 11/12; 17 <sup>th</sup>               | STN, STAM, TW, SPL                           |
| 8005    | 1            | 12 or 15 <sup>th</sup>                | Too burned to distinguish between SPL or HUM |
| 8007    | 11           | R; 13-16 <sup>th</sup>                | R grey ware, YGW, HUM, CIST                  |
| 8008    | 7            | 11/12 - 15 <sup>th</sup>              | GW, SPL, HUM                                 |
| 8009    | 20           | 11/12- 16 <sup>th</sup>               | STAM, TW, LCRW, GW, SPL, YGW, CIST           |
| 8015    | 17           | late11/12 <sup>th</sup>               | STAM, TW, GW, SPL                            |
| 8017    | 9            | R; 10/11 <sup>th</sup>                | TW, SH, R grey ware                          |
| 8021    | 20           | 11/12 <sup>th</sup>                   | TW, GW, SPL                                  |
| 8022    | 5            | 10/11 <sup>th</sup>                   | SH   |
| 8024    | 1            | 10/11 <sup>th</sup>                   | STAM   |
| 8025    | 26           | R; 10/11 <sup>th</sup>                | SH, STAM, TW, R grey ware                    |
| 8012    | 7            | 10/11 <sup>th</sup> -13 <sup>th</sup> | TW, STAM, YGW                                |

|      |    |                                  |                                |
|------|----|----------------------------------|--------------------------------|
| 8026 | 1  | R                                | R (abraded)                    |
| 8027 | 4  | 10/11 <sup>th</sup>              | TW, STAM                       |
| 8028 | 8  | 10/11 <sup>th</sup>              | TW, STAM, R grey ware          |
| 8036 | 8  | 9/10 <sup>th</sup>               | YW, TW, R glazed ware          |
| 8041 | 2  | 10 <sup>th</sup>                 | TW                             |
| 8047 | 1  | 2 <sup>nd</sup> /3 <sup>rd</sup> | R grey wares                   |
| 8051 | 1  | 2 <sup>nd</sup> /3 <sup>rd</sup> | R grey wares                   |
| 8052 | 13 | R; 10 <sup>th</sup>              | R grey wares, TW               |
| 8053 | 3  | 2 <sup>nd</sup> /3 <sup>rd</sup> | R grey wares                   |
| 8066 | 2  | 2 <sup>nd</sup> /3 <sup>rd</sup> | R grey wares                   |
| 8057 | 2  | R; 15 <sup>th</sup>              | R calcite gritted; HUM         |
| 8060 | 6  | R                                | R grey wares                   |
| 8062 | 1  | R                                | R grey wares                   |
| 8069 | 1  | 2 <sup>nd</sup> /3 <sup>rd</sup> | R grey wares, R oxidised wares |
| 8063 | 11 | 2 <sup>nd</sup> /3 <sup>rd</sup> | R grey wares                   |

#### 7.4 Trench 11

The pottery from this trench is dominated by material dated to the second half of the 10<sup>th</sup> and 11<sup>th</sup> centuries with a sequence extending into the 13<sup>th</sup> century in a few contexts. There are a few sherds of Roman grey wares and a single Samian sherd.

The most common pottery is Torksey-type ware which first appeared in York c.900AD but which dominated the ceramic market in York from the middle of the 10<sup>th</sup> century to the mid 11<sup>th</sup> century. The range of forms represented are, as is typical, of a domestic character and include cooking pots and bowls. The absence of rouletted decoration on vessel shoulders and rims indicates a date in the later 10<sup>th</sup> or early 11<sup>th</sup> century when decorated sherds are less common. This is consistent with the repeated association of the Torksey-type ware with Stamford ware in some contexts, which is usually ascribed to the early 11<sup>th</sup> century. In the mid 11<sup>th</sup> century Gritty wares make their first appearance and subsequently replace the Torksey-type wares. Splashed wares of the later 11<sup>th</sup> and 12<sup>th</sup> century found in some contexts in Trench 11 indicate Norman period activity which continues throughout the rest of the sequence into the 13<sup>th</sup> century. The latest sherd is of a Walmgate ware drinking jug in context 11002. These long-lived types were produced from the late 13<sup>th</sup> to the 16<sup>th</sup> century with their main period of production in the 14<sup>th</sup> and 15<sup>th</sup> century. This sherd might be intrusive otherwise it is indicative of 14<sup>th</sup> century activity in the upper parts of the trench.

This trench has a small but very good sequence of Anglo-Scandinavian or Viking Age domestic vessels covering the period from c.950 - c.1250/1275 or possibly beyond.

| Context | no of sherds | spot date                                | Description  |
|---------|--------------|--|--|
| 11001   | 35           | 10/11 <sup>th</sup> -13/14 <sup>th</sup> | ST, TW, GW, SPL, YGW   |
| 11002   | 4            | 12 <sup>th</sup> -14 <sup>th</sup>       | GW, STAM, WALM.  |
| 11004   | 2            | 12/13 <sup>th</sup>                      | YGW  |
| 11007   | 8            | 10/11-13 <sup>th</sup>                   | STAM, YGW  |
| 11010   | 4            | 11-13 <sup>th</sup>                      | TW, STAM, GW, YGW  |
| 11011   | 8            | 13 <sup>th</sup>                         | STAM, YGW  |
| 11012   | 1            | 10/11 <sup>th</sup>                      | SH, SPL, GW  |
| 11013   | 1            | 10 <sup>th</sup>                         | PING   |
| 11016   | 4            | 11/12 <sup>th</sup>                      | GW, SPL  |
| 11020   | 13           | 11th-13 <sup>th</sup>                    | SH, SPL, GW  |
| 11026   | 2            | 10 <sup>th</sup>                         | PING   |
| 11028   | 3            | 11/12 <sup>th</sup>                      | STAM, GW   |
| 11030   | 8            | 10 <sup>th</sup>                         | TW, STAM   |
| 11034   | 2            | 10/11 <sup>th</sup>                      | TW   |
| 11035   | 2            | 10 <sup>th</sup>                         | TW   |
| 11037   | 4            | 10/11 <sup>th</sup>                      | TW, STAM   |
| 11038   | 18           | 10 <sup>th</sup>                         | TW (also produced part of a TW lamp previously recorded as small find 5) |
| 11039   | 2            | 10 <sup>th</sup>                         | TW   |
| 11042   | 3            | 10 <sup>th</sup>                         | TW   |
| 11046   | 10           | 10 <sup>th</sup>                         | STAM, GW   |
| 11047   | 1            | 10 <sup>th</sup>                         | STAM, GW   |
| 11048   | 1            | Roman                                    | Samian   |
| 11054   | 3            | 10 <sup>th</sup>                         | TW   |
| 11055   | 19           | 10 <sup>th</sup>                         | TW, R  |
| 11056   | 2            | 10 <sup>th</sup>                         | TW   |
| 11060   | 7            | 10 <sup>th</sup>                         | TW   |
| 11070   | 3            | R; 11 <sup>th</sup>                      | R grey ware, GW  |
| 11073   | 1            | R  | R grey ware  |
| 11074   | 1            | 10 <sup>th</sup>                         | TW   |
| 11077   | 3            | 9th/10 <sup>th</sup>                     | SH, TW   |
| 11080   | 1            | 10 <sup>th</sup>                         | TW   |

## 7.5 Trench 12

The pottery from Trench 12 is mainly of medieval date with no residual Roman sherds and only small amounts of residual Anglo-Scandinavian pottery (Torksey-type wares and Stamford wares) occurring with sherds of a later date. The sequence begins sometime in the 12<sup>th</sup> century and continues into the 15<sup>th</sup> century with some later material in the higher contexts.

The main pottery types in the earliest contexts are Gritty and Splashed wares of the later 11<sup>th</sup> and 12<sup>th</sup> century. York Glazed ware (which begins in the later 12<sup>th</sup> century) appears in a number of these same contexts suggesting that the sequence as excavated begins no earlier than the second half of the 12<sup>th</sup> century. There is further York Glazed ware, small amounts of Brandsby-type ware, Walmgate ware and Humber wares which carry the sequence through the 13<sup>th</sup> and 14<sup>th</sup> centuries and into the 15<sup>th</sup> century. The later 15<sup>th</sup> and 16<sup>th</sup> centuries are represented by Purple Glazed wares and Cistercian wares. Imported material includes Low Countries red wares and German stonewares, common finds on medieval sites in York. Post-medieval pottery types, notably slipwares, were found in the upper levels.

The forms represented are all of a domestic character and the assemblage probably represents centuries of rubbish accumulation.

| Context | no of sherds | Spot date                             | Description                              |
|---------|--------------|---------------------------------------|--|
| 12001   | 43           | 10 <sup>th</sup> -18/19 <sup>th</sup> | STAM, GW, SPL, YGW, HUM, CIST, STN, SLIP |
| 12002   | 11           | 10 <sup>th</sup> ;14/15 <sup>th</sup> | TW, HUM                                  |
| 12003   | 20           | 12 <sup>th</sup> -16 <sup>th</sup>    | GW, STN, CIST, YRED                      |
| 12005   | 3            | 15 <sup>th</sup>                      | HUM                                      |
| 12004   | 3            | 14 <sup>th</sup>                      | BRAND                                    |
| 12007   | 19           | 10 <sup>th</sup> -15 <sup>th</sup>    | STAM, TW, YGW, BRAND, STN, PURP          |
| 12008   | 4            | 14/15 <sup>th</sup>                   | BRAND                                    |
| 12011   | 8            | 10 <sup>th</sup> -14 <sup>th</sup>    | LCRW, TW, SPL                            |
| 12012   | 21           | 10 <sup>th</sup> -15 <sup>th</sup>    | TW, GW, SPL, HUM, PURP                   |
| 12013   | 64           | 13 <sup>th</sup> -16 <sup>th</sup>    | GW, YGW, HAMB, STN, HUM                  |
| 12014   | 4            | 10 <sup>th</sup> -14 <sup>th</sup>    | STAM, WALM                               |
| 12015   | 31           | 11 <sup>th</sup> -16 <sup>th</sup>    | STAM, YGW, HUM.                          |
| 12016   | 2            | 11/12 <sup>th</sup>                   | GW                                       |
| 12018   | 2            | 14 <sup>th</sup>                      | YGW, HUM                                 |
| 12019   | 8            | 13/14 <sup>th</sup>                   | YGW, TW                                  |
| 12020   | 11           | 14 <sup>th</sup>                      | GW, SPL, YGW                             |
| 12021   | 23           | 14 <sup>th</sup>                      | GW, YGW, HUM                             |

|       |    |                                       |             |
|-------|----|---------------------------------------|-------------|
| 12022 | 20 | 14 <sup>th</sup>                      | YGW, HUM    |
| 12023 | 12 | 12/13 <sup>th</sup>                   | STAM, GW    |
| 12024 | 8  | 11 <sup>th</sup> -14/15 <sup>th</sup> | WALM, STAM  |
| 12025 | 3  | 13 <sup>th</sup>                      | YGW         |
| 12026 | 11 | 12/13 <sup>th</sup>                   | GW, YGW     |
| 12027 | 3  | 12 <sup>th</sup>                      | TW, GW, SPL |

## 7.6 Trench 13

The pottery from this trench comprised mostly medieval, post-medieval and modern types. The medieval pottery is usually found residually with later material. There is a small amount of Roman pottery also redeposited in later levels. There is nothing of the Anglian period but the presence of Anglo-Scandinavian deposits in the area is indicated by a single sherd of Stamford ware. All the types and form represented are well known in York and this assemblage is typical of domestic refuse assemblages.

| Context | no. of sherds | Spot date                             | description   |
|---------|---------------|---------------------------------------|---|
| 13001   | 52            | R: 14 <sup>th</sup> -20 <sup>th</sup> | 1 R; BRAND, HUM, CIST, BLK, ESTN, TGEW and M.       |
| 13004   | 21            | R; 14 <sup>th</sup> -17 <sup>th</sup> | 2R; BRAND, HUM, LCRW, HAMB, PMRW                    |
| 13007   | 2             | 15 <sup>th</sup> -17 <sup>th</sup>    | HAMB, PMRW  |
| 13014   | 1             | 15 <sup>th</sup>                      | HUM. Also produced small find 19 - a counter in YGW |
| 13019   | 3             | 15 <sup>th</sup>                      | HUM plus late SH                                    |
| 13021   | 14            | R; 11 <sup>th</sup> -15 <sup>th</sup> | 1R; GW, SPL, BRAND, HUM                             |
| 13053   | 5             | 10 <sup>th</sup> -14 <sup>th</sup>    | STAM, SPL, BRAND                                    |
| 13060   | 1             | Roman                                 | R grey ware   |
| 13064   | 5             | 12 <sup>th</sup> -14 <sup>th</sup>    | SPL, early YGW                                      |
| 13079   | 21            | 13 <sup>th</sup> -15/16 <sup>th</sup> | YGW, BRAND, HUM, late HUM?                          |
| 13087   | 3             | 14 <sup>th</sup> -16 <sup>th</sup>    | BRAND, WALM, CMW                                    |

## 7.7 Trench 14

This small assemblage is mainly post-medieval in date with a few redeposited medieval sherds. The types and forms represented are all typical of York at this period.

| context | no of sherds | Spot date                          | Description   |
|---------|--------------|------------------------------------|---|
| 14000   | 108          | 17 <sup>th</sup> -20 <sup>th</sup> | All post-medieval and modern types represented. No earlier material |
| 14014   | 11           | 11 <sup>th</sup> -20 <sup>th</sup> | GW (1), HUM, WALM, BLK, SLIP and M.                                 |
| 14019   | 10           | 13 <sup>th</sup> -18 <sup>th</sup> | YGW(1), BRAND, SRW, HUM, CIST, and ESTN.                            |

## 7.8 Trench 15

The sequence begins in the 14<sup>th</sup> century with a little residual Roman, Anglo-Scandinavian (Torksey-type ware and Stamford ware) and Norman period (Splashed and Gritty ware) pottery occurring with later types. The sequence continues through the 15<sup>th</sup> and 16<sup>th</sup> century and into the post-medieval period.

The material of the 15<sup>th</sup> and 16<sup>th</sup> centuries includes both cooking vessels (e.g. a substantial part of a Humber ware skillet was recovered in context 15017) and table wares. The latter includes a Hambleton ware lobed bowl (contexts 15017 and 15019) and a number of Walmgate ware drinking jugs.

Imported material includes German stoneware drinking jugs and Low Countries redware cooking vessels. Both are common finds in medieval York.

| context | No of sherds | Spot date                               | description                                      |
|---------|--------------|---|--|
| 15000   | 114          | Late 19 <sup>th</sup> /20 <sup>th</sup> | SLIP, STN, PMEW, BLK, CIST, TGEW, BRN, HAMB      |
| 15001   | 16           | 19/20 <sup>th</sup>                     | M, PMEW  |
| 15002   | 6            | 16 <sup>th</sup>                        | HUM, HAMB  |
| 15003   | 64           | 17 <sup>th</sup> -19 <sup>th</sup>      | SLIP, TGEW, BLK                                  |
| 15006   | 2            | 18 <sup>th</sup>                        | CIST, STN  |
| 15007   | 134          | 19/20 <sup>th</sup>                     | SLIP, TGEW, WILL, BLK, CIST, STN, PMEW, HAMB, GW |
| 15014   | 32           | 18/19 <sup>th</sup>                     | HAMB, TGEW, SLIP, BLK, PMEW, WALM                |
| 15015   | 20           | 16/17 <sup>th</sup>                     | CIST, SLIP, HAMB, HUM                            |
| 15016   | 3            | 11 <sup>th</sup> /12 <sup>th</sup>      | GW, SPL  |
| 15017   | 59           | 16 <sup>th</sup> -18 <sup>th</sup>      | HUM, WALM, SPL, BRN, HUM, HAMB, CIST             |
| 15018   | 2            | 14 <sup>th</sup>                        | WALM   |
| 15019   | 43           | 16 <sup>th</sup>                        | STN, LCRW, RYE, HAMB, HUMB, WALM,                |
| 15020   | 2            | 16 <sup>th</sup>                        | HUM, STN   |
| 15022   | 2            | 15 <sup>th</sup>                        | TW, PMEW   |
| 15023   | 12           | late 14/15 <sup>th</sup>                | STN, HUM, R grey ware (1)                        |
| 15024   | 1            | 12 <sup>th</sup>                        | SPL  |
| 15025   | 4            | 15 <sup>th</sup>                        | GW, HAMB   |
| 15026   | 12           | 14 <sup>th</sup>                        | BRAND  |
| 15030   | 23           | 14 <sup>th</sup>                        | TW, STAM, GW, BRAND, SPL                         |
| 15032   | 48           | 10 <sup>th</sup> -14 <sup>th</sup>      | TW, GW, YGW, BRAND                               |

### 7.9 Trench 16

This trench produced late post-medieval and modern wares with only a single sherd (Gritty ware) of earlier material.

| Context | No of sherds | Spot date           | description            |
|---------|--------------|---------------------|------------------------|
| 16000   | 2            | 19 <sup>th</sup>    | TGEW, STN              |
| 16008   | 57           | 19/20 <sup>th</sup> | BLK, HUMB,<br>TGEW, M. |
| 16155   | 1            | 18 <sup>th</sup>    | STN                    |
| 16158   | 4            | 18 <sup>th</sup>    | PMEW, TGEW             |
| 16160   | 2            | 18 <sup>th</sup>    | GW, STN                |

### 7.10 Trench 18

This trench produced only a few sherds of late medieval and post-medieval domestic wares.

| Context | No of sherds | Spot date           | description |
|---------|--------------|---------------------|-------------|
| 18003   | 1            | 18 <sup>th</sup>    | BRN         |
| 18016   | 10           | 15/16 <sup>th</sup> | Late HUM    |

### 7.11 Trench 19

Most of the pottery from this trench was of very late post-medieval and modern date. Only three contexts (19047, 19052 and 19056) produced sherds of domestic rubbish (six in total) of 10<sup>th</sup>-14<sup>th</sup> century wares.

| context | No of sherds | Spot date                          | description                                 |
|---------|--------------|------------------------------------|---|
| 19000   | 24           | 19 <sup>th</sup>                   | BLK, STN, PMEW, and residual medieval wares |
| 19013   | 1            | M                                  | M   |
| 19015   | 2            | M                                  | M   |
| 19020   | 1            | M                                  | M   |
| 19022   | 2            | M                                  | M   |
| 19026   | 1            | 19/20 <sup>th</sup>                | WILL  |
| 19041   | 1            | 18/19 <sup>th</sup>                | SLIP, PORC, CIST                            |
| 19046   | 4            | 19 <sup>th</sup>                   | WILL  |
| 19047   | 3            | 10 <sup>th</sup> -14 <sup>th</sup> | TW, YGW                                     |
| 19052   | 2            | 13/14 <sup>th</sup>                | GW, YGW                                     |
| 19056   | 1            | 13 <sup>th</sup>                   | YGW   |

## 7.12 Trench 20

The sequence begins in the Roman period with obviously rolled and abraded sherds of 2<sup>nd</sup> and 3<sup>rd</sup> century date. There are no sherds of obvious 4<sup>th</sup> -10<sup>th</sup> century date; the sequence re-starts in the 10<sup>th</sup> century with Torksey-type wares, Shelly and Stamford wares. There is then a continuous sequence through the Norman, medieval and post-medieval periods.

The types of pottery represented include all the major wares found in York during these periods and the usual range of imports. The latter comprise only occasional sherds from Rouen (13<sup>th</sup> century), the Low Countries and Germany (14<sup>th</sup> and 15<sup>th</sup> century types).

The range of vessel forms are those typical of domestic rubbish including the range of cooking vessels (cooking pots, cisterns etc) and table ware. The latter include, for example, a complete Walmgate drinking jug and fragments of a Siegburg drinking jug from context 20033, and a substantial part of a Hambleton-type ware lobed bowl from 20018. Garden furniture in the form of part of a Humber ware garden urn was recovered from 20002. The only evidence for industrial activity is a sherd of a Stamford ware crucible (10<sup>th</sup> or 11<sup>th</sup> century in date) from context 20025 where it is presumably residual.

| context | No of sherds | Spot date                          | description  |
|---------|--------------|------------------------------------|--|
| 20000   | 101          | 18/19 <sup>th</sup>                | BLK, TGEW, R, BRN, WALM, HUM, HAMB, GW   |
| 20002   | 34           | 16 <sup>th</sup> -17 <sup>th</sup> | YGW, HUM, HAMB   |
| 20004   | 34           | 15 <sup>th</sup> /16 <sup>th</sup> | HUM, STAM, GW, SPL, WALM   |
| 20005   | 35           | 15 <sup>th</sup>                   | HUM  |
| 20007   | 12           | 15 <sup>th</sup>                   | LCRW, HUM, HAMB  |
| 20008   | 36           | 15 <sup>th</sup>                   | HUM, HAMB, WALM, GW  |
| 20010   | 5            | 15 <sup>th</sup>                   | HUM  |
| 20012   | 12           | 15 <sup>th</sup>                   | HAMB, HUM  |
| 20013   | 9            | 14/15 <sup>th</sup>                | HUM, WALM  |
| 20015   | 11           | 15 <sup>th</sup>                   | HUM, GW, TW  |
| 20016   | 103          | 15 <sup>th</sup>                   | TW, HUM, WALM, YGW, BRAND, CIST, STN, IMP  |
| 20018   | 18           | 15 <sup>th</sup>                   | HUM, YGW, CIST, HAMB   |
| 20019   | 15           | 15 <sup>th</sup>                   | HUM  |
| 20021   | 12           | 14 <sup>th</sup>                   | YGW, SPL, BRAND,   |
| 20025   | 3            | 14 <sup>th</sup>                   | STAM, YGW, HUM   |
| 20028   | 23           | 14 <sup>th</sup>                   | ROUEN, STAM, YGW, BRAND  |
| 20033   | 59           | 14 <sup>th</sup>                   | HUM, WALM, YGW, BRAND, GW, LCRW, STN (Siegburg) (WALM drinking jug small find 224) |

|       |    |  |  |
|-------|----|--|--|
| 20034 | 16 | 15 <sup>th</sup>   | HAMB, HUM  |
| 20036 | 84 | 11 <sup>th</sup> -14 <sup>th</sup>                         | GW, SPL, YGW, BRAND, WALM, HUM, STAM                 |
| 20037 | 7  | R; 13 <sup>th</sup>  | R, YGW   |
| 20038 | 11 | 14 <sup>th</sup>   | YGW, BRAND, HUM                                      |
| 20040 | 9  | 13/14 <sup>th</sup>  | YGW, HUM   |
| 20042 | 5  | 13 <sup>th</sup>   | YGW  |
| 20044 | 20 | 14 <sup>th</sup>   | GW, BRAND, YRED                                      |
| 20046 | 8  | R; 10 <sup>th</sup> ;<br>13 <sup>th</sup>                  | R, TW, GW, YGW                                       |
| 20047 | 36 | 11 <sup>th</sup> -14 <sup>th</sup>                         | GW, YGW, BRAND,                                      |
| 20048 | 24 | R; 11-13 <sup>th</sup>                                     | R, GW, SPL, YGW                                      |
| 20049 | 11 | 13/14 <sup>th</sup>  | YGW, BRAND, HUM                                      |
| 20051 | 9  | 14 <sup>th</sup>   | YGW, WALM  |
| 20060 | 18 | R; 10 <sup>th</sup> -14 <sup>th</sup>                      | R, STAM, GW, YGW, WALM                               |
| 20068 | 1  | 14 <sup>th</sup>   | BRAND  |
| 20070 | 26 | R; 10-13/<br>14 <sup>th</sup>                              | R, TW, GW, SPL, YGW, WALM,                           |
| 20073 | 29 | R; 10 <sup>th</sup> -12 <sup>th</sup><br>/13 <sup>th</sup> | R, STAM, TW, SPL, GW                                 |
| 20077 | 18 | R; 10 <sup>th</sup> -11 <sup>th</sup>                      | R, TW, STAM  |
| 20078 | 13 | R; 10 <sup>th</sup> -11 <sup>th</sup>                      | R, TW  |
| 20079 | 5  | R; 10 <sup>th</sup>  | R, SH  |
| 20080 | 2  | 10 <sup>th</sup>   | TW   |
| 20081 | 1  | ?  | unid   |
| 20082 | 9  | R; 10 <sup>th</sup>  | R, TW  |
| 20084 | 9  | 2 <sup>nd</sup> /3 <sup>rd</sup>                           | Small sherds, much rolled, R grey and oxidixed wares |
| 20085 | 5  | 2 <sup>nd</sup> /3 <sup>rd</sup>                           | "  |
| 20087 | 5  | 2 <sup>nd</sup> /3 <sup>rd</sup>                           | "  |
| 20089 | 6  | 2 <sup>nd</sup> /3 <sup>rd</sup>                           | "  |
| 20090 | 17 | 2 <sup>nd</sup> /3 <sup>rd</sup>                           | "  |
| 20091 | 29 | 2 <sup>nd</sup> /3 <sup>rd</sup>                           | "  |
| 20092 | 26 | 2 <sup>nd</sup>  | "  |
| 20093 | 49 | 2 <sup>nd</sup> /3 <sup>rd</sup>                           | Larger sherds - still rolled                         |
| 20094 | 13 | 2 <sup>nd</sup>  | "  |

|       |    |                                 |   |
|-------|----|---------------------------------|---|
| 20095 | 8  | 2 <sup>nd</sup> 3 <sup>rd</sup> | " |
| 20096 | 17 | 2 <sup>nd</sup>                 | " |
| 20097 | 16 | 2 <sup>nd</sup> 3 <sup>rd</sup> | " |
| 20099 | 3  | 2 <sup>nd</sup> 3 <sup>rd</sup> | " |

### 7.13 Trench 24

This trench contained very little Roman material but there was clearly activity on this part of the trench from the second half of the 9<sup>th</sup> century onwards. Context 24064 is particularly interesting as this represents a good contemporary group not later than c.900. There is pottery from this period through to the Norman period but little material which correlates to the medieval period. The late medieval and post medieval period is also represented by a few sherds.

The material is all typical domestic refuse with no imported material present.

| Context | no of sherds | Spot date                          | description     |
|---------|--------------|------------------------------------|-----------------|
| 24000   | 9            | M                                  | M               |
| 24001   | 2            | 14 <sup>th</sup>                   | WALM            |
| 24004   | 6            | 16 <sup>th</sup> -mod              | CIST, M         |
| 24005   | 6            | 10 <sup>th</sup> -13 <sup>th</sup> | GW, YGW, TW     |
| 24008   | 13           | 10/11 <sup>th</sup>                | STAM, GW        |
| 24009   | 12           | 11 <sup>th</sup>                   | GW, STAM        |
| 24017   | 9            | 11/12 <sup>th</sup>                | TW, STAM, SPL   |
| 24019   | 3            | 15 <sup>th</sup>                   | PURP, YGW       |
| 24022   | 3            | 10/11 <sup>th</sup>                | TW              |
| 24026   | 1            | 11 <sup>th</sup>                   | GW              |
| 24034   | 1            | 14 <sup>th</sup>                   | ?BRAND          |
| 24043   | 1            | 15 <sup>th</sup>                   | HUM             |
| 24044   | 1            | 15 <sup>th</sup>                   | HUM             |
| 24045   | 5            | 14 <sup>th</sup>                   | BRAN/HUM        |
| 24051   | 5            | 15 <sup>th</sup>                   | GW, YGW, HUM    |
| 24052   | 7            | 11/12 <sup>th</sup>                | TW, GW          |
| 24054   | 17           | 10/11 <sup>th</sup>                | TW, GW, SPL     |
| 24055   | 1            | 16 <sup>th</sup>                   | CIST            |
| 24056   | 3            | 14 <sup>th</sup>                   | ?BRAND          |
| 24057   | 23           | 14/15 <sup>th</sup>                | YGW, BRAND, HUM |

|       |    |                                    |  |
|-------|----|------------------------------------|--|
| 24057 | 8  | 15 <sup>th</sup>                   | YGW, BRAND, HUM  |
| 24058 | 3  | 11 <sup>th</sup>                   | R, TW, GW  |
| 24061 | 74 | 10 <sup>th</sup>                   | YW, TW, R, YW/GW   |
| 24062 | 95 | R                                  | R, YW, TW, STAM  |
| 24063 | 16 | 14/15 <sup>th</sup>                | HUM  |
| 24064 | 88 | R; late 9 <sup>th</sup> century    | Important context. 80 sherds are all from 6-7 YW cooking pots 850-900 and nothing later  |
| 24065 | 2  | 14 <sup>th</sup> /15 <sup>th</sup> | HUM, YGW   |
| 24068 | 5  | R; early/mid 9 <sup>th</sup>       | the early/mid 9 <sup>th</sup> century date is based on 2 sherds but they are certainly no later than 900. Also produced small find 51 an odd, probably Roman, decorative part from a bowl. |

#### 7.14 Trench 25

The small amount of pottery from this trench makes conclusions other than marking the presence of pottery from the Roman, Anglo-Scandinavian, Norman and later medieval periods unnecessary.

| Context | no of sherds | Spot date   | description        |
|---------|--------------|---|--------------------|
| 25000   | 25           | 10 <sup>th</sup> ; 13/14 <sup>th</sup> ; 16 <sup>th</sup> | TW, GW, CIST, TGEW |
| 25001   | 2            | 17 <sup>th</sup>  | SLIP, PMEW         |
| 25015   | 1            | R   | R grey ware        |
| 25018   | 1            | 10 <sup>th</sup>  | STAM               |

#### 7.15 Trench 33

All the pottery recovered from this trench was late post-medieval and modern in date. There was no residual earlier material.

| context | no of sherds | Spot date           | description              |
|---------|--------------|---------------------|--------------------------|
| 33000   | 22           | M                   | PMEW, TGEW, CIST, BLK, M |
| 33001   | 3            | 18 <sup>th</sup>    | SLIP                     |
| 33002   | 7            | 17/18 <sup>th</sup> | SLIP, STN, TGEW          |

## **8. CERAMIC BUILDING MATERIALS REPORT**

### **8.1 Introduction**

The ceramic building materials (CBM) from the trenches were recorded on site by the CBM specialist using the York Archaeological Trust's CBM pro forma. This records the fabric, form, weight and measurements, including comments, of all the retrieved fragments. The records were then transferred onto the York Archaeological Trust's Integrated Archaeological Database system.

It was originally envisaged that the specialist would call out the details and that the Finds Assistant would enter the records directly onto the database via an on-line connection. However, due to a combination of the slowness of the records being accepted onto the on-line database, and the steps needed to be taken by the CBM specialist to record each fragment, this proved to be impractical. Another difficulty encountered was keeping track of damp pieces that had already been recorded, but needed to dry out. This sometimes resulted in recording fragments twice. The database needs to be adjusted accordingly, and checked for errors. Also, fragments that were small found needed to be entered twice - once on the small finds section, and then also on the CBM records. The hand written records serve as a back-up archive for most of the contexts. Recording on site enabled the dispersal of the sample where necessary, leaving a select amount of material for further study. A total of approximately 291.5kg was recorded, out of which 43.6kg was retained. CBM from all periods were present.

### **8.2 Roman material**

The Roman material consists of roof tile (tegula and imbrex), brick (which could be used within hypocausts or as bonding courses in walling, and although smaller fragments may be unidentifiable fragments of tegula body) and flue tile. The sample has all the usual Roman York fabrics, plus several fabrics that could not be matched on site, and may be new to the York Archaeological Trust's fabric series. The sample was quite fragmentary, so that some of the useful dimension/feature indicators which can help with dating were not present. Of note was a possible fragment of scored wall tile or half box flue from 2000.10/11004. Both wall tile and half box flues are early forms of cavity wall heating that went out of use around the late 1<sup>st</sup> century in favour of the more familiar box flue tile. Fragments of box flue tile fragments, but without either combing, finger smoothing or scoring that might have given a clue to the date, are present. There are several signatures (usually taking the form of an arc or several arcs) drawn on the surface of a wet tegula or bricks by the tile maker (2000.6/20044, 200048, 20070 and 2000.7/24061). Keying is also present on two Roman bricks, taking the form of a two finger drawn line from the corner on the diagonal (2000.6/20008) and criss-crossing (2000.6/20072). There is one example of a hob-nail imprint (2000.12/12026) and a possible fingerprint (2000.6/20072).

### **8.3 Medieval material**

CBM from throughout the medieval period is present in the samples. The earlier type of medieval roofing (curved and flanged tile), which can be dated to between the 11<sup>th</sup> and early 13<sup>th</sup> centuries, is present in fairly small quantities. Flange tile appears in trenches 2000.2, 6, 7 and 13. Occasionally there are fragments which may be plain roofing tile, but due to the fabric, manufacturing traits and type of peghole may actually be flanged tile, with the flange knocked off. Once such fragment

occurs in 2000.8. Curved tile can often be confused with later ridge tile. However, as with the flange tile certain fabrics, manufacturing traits and the presence of nail holes can lead to identification as curved tile. These tiles appear in trenches 2000.2, 6, 8 and 13.

Another probable earlier medieval form is the polychrome relief tile. One small fragment occurred in 2000.6/20073. It matched well with Laurence Keen's 1993 typology of pre-Conquest tiles from All Saint's Pavement, York, being Design 9. These tiles are part of a relatively rare, but growing, collection of tiles that seem to be associated with high status, late Saxon churches in England. The dating of these tiles has been postulated as early as the 10<sup>th</sup> century, but an 11<sup>th</sup> century date seems reasonable. Its presence on the site is a puzzle, though it is arguably close enough to Coppergate and All Saints to be part of the fall-out of dumping from that church in a 12<sup>th</sup> century or later refit.

Plain roof tile of both types - nib and peg - were present. Any fragment not showing a diagnostic feature was assigned as 'plain'. These tiles date from at least the 13<sup>th</sup> century, and continue in use through to the post medieval period. Again, manufacturing traits and fabric types can lead to identification as medieval rather than post medieval

There are three definite fragments of nib tile from 2000.2/15007, 2000.6/20044, and 2000.7/24019. The piece from 15007 has a large trimmed nib. The nib from 20044 was close to one corner and may have been one of two nibs, or perhaps there was a peg hole in the other corner. The fabrics of each were different. Nib tile is found in fairly small quantities in York, and may have been used for patching. They may have been brought in from elsewhere, and a near complete find of a nib tile in the Coppergate excavations seems to have come in from Beverley.

A single-holed peg tile is the most common medieval roofing material in York. It was found on the Hungate sites in abundance and came in most of the usual York fabrics, as well as a few more unusual ones. The peg holes can be either circular, or square (or on a diamond axis). Several examples of batch or tally marks were observed from: 2000.6/20010, 20012, 20002, 20026, 20047, 20030, 20046; 2000.7/24050; 2000.11/22003; and 2000.12/12008. These marks mostly occur close to the peg hole and are a common feature on this type of tile. Other less common marks were retained for further study.

As usual, there are animal prints on some of the plain tile: possibly cat (2000.12/12013) and dog paw prints (2000.2/15019, 2000.6/20047, 2000.6/20051), as well as a small mammal print (2000.6/20005). Textile impressions are present on two fragments of plain tile from 2000.2/15002 and 2000.12/12021. Some plain tiles were shaped into pot lids or counters: 2000.2/15032 small find 72; 2000.6/20045 small find 196, 20025 small find 19, 20034; 2000.7/24045 (which has been shaped around a peg hole); 2000.9/25017 small find 6; 2000.12/12015, 12007; 2000.14/14019 small find 12. There is an impression of a leaf on a plain tile fragment from 2000.2/15017.

Ridge tiles were used along the apex of a plain tiled roof. In York there are plain ridge tiles, but there are also decorated knife-cut crested ridge tiles. The crests from the ridges on the Hungate sites tend to be low cut and squat. There is one exception from 2000.7/24057 where not only does the square-cut crest stand to 55mm, but there is also a green-brown glaze that would have covered at least the shoulders of the ridge, though not the crest itself. Glazing on plain roof or ridge tiles from York is relatively unusual, though not unknown.

There is one fragment of hip tile, which would have been used on a building with a hipped roof line, from 2000.13/13079.

Five fragments of plain glazed floor tile were found: in 2000.2/15000 (green-brown glaze), 15007 (three fragments: 1 brown glaze, 1 brown glaze with nail hole in corner, 1 yellow-brown glaze); and 2000.12/12003 (burnt). Some plain glazed tiles are thought to have been imported from the Low Countries, though local imitations were also produced. These tiles are generally dated from the late 14-16<sup>th</sup> century.

Bricks begin to appear in York in contexts dated from the 14-15<sup>th</sup> century onward. These bricks are most typically 255mm x 125+mm x 39+mm, though they can be a little larger or smaller. Also often present are indented borders on the smoothed upper surface; and the moulding sand is medium to coarse and covers the headers and stretchers as well as the base. These bricks occur in most of the trenches at Hungate. The use of the bricks may be as brick infill for timber-framed buildings, and they are a common find in York.

Large fragments of daub from wattle walls or ovens is present in several contexts including 11024. It clearly shows the impressions of wattle rods of varying width and patterning.

#### **8.4 Post medieval material**

Post medieval brick is present in most of the upper layers of the trenches in Hungate. These can range from handmade bricks to the highly processed brick of the late 19<sup>th</sup> to 20<sup>th</sup> century. The former are characterised by being slop moulded (where the brick mould was wetted and no sand was used) and smaller breadth and length measurements allied with larger thicknesses than the medieval counterparts. It is currently difficult to gauge the dates of bricks between the 16<sup>th</sup> and early 19<sup>th</sup> century with any great accuracy. Some brick may have been used as flooring; the bricks from 2000.2/15007 and 2000.6/2000 show signs of being worn down.

There are three unglazed floor tiles from 2000.14/14010. These tiles are between 218-223mm square and 39-41mm thick. Tiles of this date are associated with a 17-18<sup>th</sup> century date, and may be Low Countries imports. The Hungate examples have a bevelled edge, refined fabrics and have corners knocked off, evidently to facilitate being laid around a particular feature. The tiles are quite worn and were reused.

Sewer pipe and occasional fragments of highly processed roof tile of a late 19<sup>th</sup> century date is also present in the samples.

#### **8.5 Conclusion**

This sample is typical of the CBM found in York. Although most of the forms and fabrics have been identified previously, a number of these appear to be new. Publication of the sample within a general York CBM publication is recommended. Certain specialised items such as the polychrome relief tile and floor tile will doubtless find mention in specialised studies. The daub needs further consideration and study. Often found in York in earlier medieval contexts, its uses, format and composition could shed light on wattle walling/oven construction. The textile and leaf impressions should be passed onto the appropriate specialists for identification.

The on-site recording by an appropriate specialist of the CBM provided the opportunity to make in-depth information about the material easily available. When the CBM is eventually re-examined for publication, much of the basic recording will have taken place, so that writing up will be much quicker. Most of the sample has been dispersed, leaving only a few boxes to be accessioned and deposited in the receiving museum. Consequently, the CBM sample is now at a point where it has been efficiently rationalised, and can be a useful contribution to both the study of CBM within the city and to archaeology in general.

## 8.6 Context Listing

| Context                         | Forms   | Date Range                                 | Spot Date             |
|---------------------------------|---------|--|-----------------------|
| <b>Trench 15 (YORYM:2000.2)</b> |         |  |                       |
| 15000                           | BRICK   | 16-18 <sup>th</sup>                        | 19 <sup>th</sup> +    |
|                                 | FLANGED | L11-E13 <sup>th</sup>                      |                       |
|                                 | FLOOR   | L14 <sup>th</sup> -16 <sup>th</sup>        |                       |
|                                 | PIPE    | 19 <sup>th</sup> +                         |                       |
|                                 | PLAIN   | 11-16 <sup>th</sup>                        |                       |
|                                 | RIDGE   | 13-16 <sup>th</sup>                        |                       |
| 15001                           | BRICK   | 14 <sup>th</sup> +                         | 14 <sup>th</sup> +    |
|                                 | PLAIN   | 14-16 <sup>th</sup>                        |                       |
| 15002                           | BRICK   | 16 <sup>th</sup> -18 <sup>th</sup>         | 16-18 <sup>th</sup>   |
|                                 | PLAIN   | 14-16 <sup>th</sup>                        |                       |
| 15003                           | PLAIN   | 13-16 <sup>th</sup>                        | 19 <sup>th</sup> +    |
|                                 | PIPE    | 19 <sup>th</sup>                           |                       |
| 15006                           | BRICK   | 19 <sup>th</sup>                           | 19 <sup>th</sup>      |
|                                 | PLAIN   | 13-16 <sup>th</sup>                        |                       |
| 15007                           | BRICK   | 14-15 <sup>th</sup> /17-18 <sup>th</sup>   | 18 <sup>th</sup> +    |
|                                 | FLOOR   | L14-16 <sup>th</sup>                       |                       |
|                                 | NIB     | 13-16 <sup>th</sup>                        |                       |
|                                 | PAN ?   | 17 <sup>th</sup> +?                        |                       |
|                                 | PEG     | 13-16 <sup>th</sup>                        |                       |
|                                 | PLAIN   | 14-16 <sup>th</sup>                        |                       |
| 15014                           | PLAIN   | 13-16 <sup>th</sup>                        | 13-16 <sup>th</sup>   |
| 15015                           | BRICK   | 14 <sup>th</sup> +                         | 14 <sup>th</sup> +    |
| 15017                           | BRICK   | 14-15 <sup>th</sup>                        | 14-16 <sup>th</sup>   |
|                                 | PLAIN   | 14-16 <sup>th</sup>                        |                       |
| 15018                           | PLAIN   | 13-16 <sup>th</sup>                        | 13-16 <sup>th</sup>   |
| 15019                           | BRICK   | 14-15 <sup>th</sup> /14-15 <sup>th</sup> ? | 14-16 <sup>th</sup> ? |
|                                 | PEG     | 13-16 <sup>th</sup>                        |                       |
|                                 | PLAIN   | 14-16 <sup>th</sup>                        |                       |
|                                 | RIDGE   | 13-16 <sup>th</sup>                        |                       |
| 15022                           | PLAIN   | 13-16 <sup>th</sup>                        | 13-16 <sup>th</sup>   |
| 15023                           | BRICK   | 14-15 <sup>th</sup>                        | 14-16 <sup>th</sup>   |
|                                 | PLAIN   | 13-16 <sup>th</sup>                        |                       |
| 15024                           | PLAIN   | 13-16 <sup>th</sup>                        | 13-16 <sup>th</sup>   |

|                                 |         |  |                                    |
|---------------------------------|---------|--|------------------------------------|
| 15025                           | PLAIN   | 13-16 <sup>th</sup>                      | 13-16 <sup>th</sup>                |
| 15026                           | PLAIN   | 13-16 <sup>th</sup>                      | 13-16 <sup>th</sup>                |
| 15030                           | PEG     | 13-16 <sup>th</sup>                      | 13-16 <sup>th</sup>                |
|                                 | PLAIN   | 13-16 <sup>th</sup>                      |                                    |
| 15031                           | PLAIN   | 13-16 <sup>th</sup>                      | 13-16 <sup>th</sup>                |
| 15032                           | BRICK   | ?  | 13-16 <sup>th</sup>                |
|                                 | CURVED  | 11 <sup>th</sup> -E 13 <sup>th</sup>     |                                    |
|                                 | FLANGED | 11 <sup>th</sup> -E 13 <sup>th</sup>     |                                    |
|                                 | PEG     | 13-16 <sup>th</sup>                      |                                    |
|                                 | PLAIN   | 13-16 <sup>th</sup>                      |                                    |
|                                 | RIDGE   | 13-16 <sup>th</sup>                      |                                    |
| <b>Trench 16 (YORYM:2000.3)</b> |         |  |                                    |
| 16005                           | PLAIN   | 14-16 <sup>th</sup>                      | 14-16 <sup>th</sup>                |
| 16008                           | BRICK   | PM                                       | 17 <sup>th</sup> +                 |
|                                 | PAN     | 17 <sup>th</sup> +                       |                                    |
|                                 | PLAIN   | 13-16 <sup>th</sup>                      |                                    |
| 16155                           | BRICK   | 16 <sup>th</sup> +                       | 16 <sup>th</sup> +                 |
|                                 | PLAIN   | 13-16 <sup>th</sup>                      |                                    |
| 16158                           | BRICK   | 14-16 <sup>th</sup> ?                    | 17 <sup>th</sup> +                 |
|                                 | PAN     | 17 <sup>th</sup> +                       |                                    |
|                                 | PLAIN   | 14-16 <sup>th</sup>                      |                                    |
| <b>Trench 18 (YORYM:2000.4)</b> |         |  |                                    |
| 18016                           | BRICK   | 16 <sup>th</sup> +                       | 16 <sup>th</sup> +                 |
|                                 | PLAIN   | 13-16 <sup>th</sup>                      |                                    |
| <b>Trench 19 (YORYM:2000.5)</b> |         |  |                                    |
| 19000                           | BRICK   | 14 <sup>th</sup> +                       | 14 <sup>th</sup> +                 |
| <b>Trench 20 (YORYM:2000.6)</b> |         |  |                                    |
| 20000                           | BRICK   | 14-15 <sup>th</sup> /16-18 <sup>th</sup> | 17 <sup>th</sup> +                 |
|                                 | CURVED? | L11-16 <sup>th</sup>                     |                                    |
|                                 | PAN     | 17 <sup>th</sup> +                       |                                    |
|                                 | PEG     | 13-16 <sup>th</sup>                      |                                    |
|                                 | PLAIN   | 14-16 <sup>th</sup>                      |                                    |
|                                 | TEGULA  | 1-4 <sup>th</sup> ?                      |                                    |
| 20002                           | BRICK   | 14 <sup>th</sup> +                       | 14 <sup>th</sup> +                 |
|                                 | CRESTED | 13-16 <sup>th</sup>                      |                                    |
|                                 | CURVED? | 11-16 <sup>th</sup>                      |                                    |
|                                 | PEG     | 13-16 <sup>th</sup>                      |                                    |
|                                 | PLAIN   | 13-16 <sup>th</sup>                      |                                    |
| 20004                           | BRICK   | 14 <sup>th</sup> +                       | 14 <sup>th</sup> -16 <sup>th</sup> |
|                                 | CRESTED | 13-16 <sup>th</sup>                      |                                    |
|                                 | PLAIN   | 14-16 <sup>th</sup>                      |                                    |
| 20005                           | BRICK   | 14-15 <sup>th</sup>                      | 14-16 <sup>th</sup>                |
|                                 | PEG     | 13-16 <sup>th</sup>                      |                                    |
|                                 | PLAIN   | 14-16 <sup>th</sup>                      |                                    |
| 20007                           | BRICK   | 14-15 <sup>th</sup>                      | 14-16 <sup>th</sup>                |
|                                 | PEG     | 13-16 <sup>th</sup>                      |                                    |

|       |         |                     |                     |
|-------|---------|---------------------|---------------------|
|       | PLAIN   | 14-16 <sup>th</sup> |                     |
|       | RBRICK  | 1-4 <sup>th</sup> ? |                     |
|       | RIDGE ? | 13-16 <sup>th</sup> |                     |
| 20008 | BRICK   | 14-15 <sup>th</sup> | 13-16 <sup>th</sup> |
|       | CRESTED | 13-16 <sup>th</sup> |                     |
|       | PEG     | 13-16 <sup>th</sup> |                     |
|       | PLAIN   | 14-16 <sup>th</sup> |                     |
|       | RBRICK  | 1-4 <sup>th</sup>   |                     |
| 20010 | BRICK   | 14-15 <sup>th</sup> | 14-16 <sup>th</sup> |
|       | PEG     | 13-16 <sup>th</sup> |                     |
|       | PLAIN   | 14-16 <sup>th</sup> |                     |
|       | RIDGE   | 13-16 <sup>th</sup> |                     |
| 20012 | BRICK   | 14-15 <sup>th</sup> | 14-16 <sup>th</sup> |
|       | PEG     | 13-16 <sup>th</sup> |                     |
|       | PLAIN   | 14-16 <sup>th</sup> |                     |
|       | RIDGE   | 13-16 <sup>th</sup> |                     |
| 20013 | PEG     | 13-16 <sup>th</sup> | 13-16 <sup>th</sup> |
|       | PLAIN   | 13-16 <sup>th</sup> |                     |
| 20015 | BRICK   | 14-15 <sup>th</sup> | 14-16 <sup>th</sup> |
|       | PLAIN   | 14-16 <sup>th</sup> |                     |
| 20016 | BRICK   | 14-15 <sup>th</sup> | 14-16 <sup>th</sup> |
|       | PEG     | 13-16 <sup>th</sup> |                     |
|       | PLAIN   | 13-16 <sup>th</sup> |                     |
|       | RBRICK  | 1-4 <sup>th</sup> ? |                     |
| 20018 | BRICK   | 14-15 <sup>th</sup> | 14-16 <sup>th</sup> |
|       | PEG     | 13-16 <sup>th</sup> |                     |
|       | PLAIN   | 14-16 <sup>th</sup> |                     |
| 20019 | BRICK   | 14-15 <sup>th</sup> | 14-16 <sup>th</sup> |
|       | PEG     | 13-16 <sup>th</sup> |                     |
|       | PLAIN   | 13-16 <sup>th</sup> |                     |
|       | RIDGE   | 13-16 <sup>th</sup> |                     |
| 20021 | PLAIN   | 13-16 <sup>th</sup> | 13-16 <sup>th</sup> |
| 20025 | BRICK   | 16 <sup>th</sup> ?  | 16 <sup>th</sup> ?  |
|       | PEG     | 13-16 <sup>th</sup> |                     |
|       | PLAIN   | 13-16 <sup>th</sup> |                     |
| 20026 | PEG     | 13-16 <sup>th</sup> | 13-16 <sup>th</sup> |
|       | PLAIN   | 13-16 <sup>th</sup> |                     |
| 20028 | BRICK   | 14-15 <sup>th</sup> | 14-16 <sup>th</sup> |
|       | IMBREX  | 1-4 <sup>th</sup> + |                     |
|       | PEG     | 13-16 <sup>th</sup> |                     |
|       | PLAIN   | 13-16 <sup>th</sup> |                     |
| 20030 | PEG     | 13-16 <sup>th</sup> | 13-16 <sup>th</sup> |
|       | PLAIN   | 13-16 <sup>th</sup> |                     |
|       | RBRICK  | 1-4 <sup>th</sup>   |                     |
| 20033 | BRICK   | 14-15 <sup>th</sup> | 14-16 <sup>th</sup> |
|       | PEG     | 13-16 <sup>th</sup> |                     |

|       |         |                       |                     |
|-------|---------|-----------------------|---------------------|
|       | PLAIN   | 14-16 <sup>th</sup>   |                     |
|       | RIDGE   | 13-16 <sup>th</sup>   |                     |
| 20034 | PLAIN   | 14-16 <sup>th</sup>   | 14-16 <sup>th</sup> |
| 20036 | BRICK   | 14th+                 | 14-16 <sup>th</sup> |
|       | FLANGED | 11-E 13 <sup>th</sup> |                     |
|       | PEG     | 13-16 <sup>th</sup>   |                     |
|       | PLAIN   | 13-16 <sup>th</sup>   |                     |
|       | RBRICK  | 1-4 <sup>th</sup> ?   |                     |
| 20038 | PEG     | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
|       | PLAIN   | 13-16 <sup>th</sup>   |                     |
| 20040 | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
|       | RBRICK  | 1-4 <sup>th</sup> ?   |                     |
| 20042 | PEG     | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
|       | PLAIN   | 13-16 <sup>th</sup>   |                     |
|       | RBRICK  | 1-4 <sup>th</sup>     |                     |
| 20044 | NIB     | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
|       | PEG     | 13-16 <sup>th</sup>   |                     |
|       | PLAIN   | 13-16 <sup>th</sup>   |                     |
|       | RBRICK  | 1-4 <sup>th</sup> ?   |                     |
|       | RIDGE   | 13-16 <sup>th</sup>   |                     |
| 20046 | PEG     | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
|       | PLAIN   | 13-16 <sup>th</sup>   |                     |
| 20047 | BRICK   | 14-16 <sup>th</sup>   | 14-16 <sup>th</sup> |
|       | PEG     | 13-16 <sup>th</sup>   |                     |
|       | PLAIN   | 13-16 <sup>th</sup>   |                     |
|       | RBRICK  | 1-4 <sup>th</sup>     |                     |
|       | RIDGE   | 13-16 <sup>th</sup>   |                     |
| 20048 | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
|       | RBRICK  | 1-4 <sup>th</sup> ?   |                     |
| 20049 | PEG     | 13-16 <sup>th</sup>   | 14-16 <sup>th</sup> |
|       | PLAIN   | 14-16 <sup>th</sup>   |                     |
| 20051 | BRICK   | 14th+                 | 14-16 <sup>th</sup> |
|       | PLAIN   | 13-16 <sup>th</sup>   |                     |
| 20060 | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 20063 | PEG     | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 20068 | PEG     | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 20068 | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 20070 | IMBREX  | 1-4 <sup>th</sup> ?   | 13-16 <sup>th</sup> |
|       | PEG     | 13-16 <sup>th</sup>   |                     |
|       | PLAIN   | 13-16 <sup>th</sup>   |                     |
|       | RBRICK  | 1-4 <sup>th</sup> ?   |                     |
|       | TEGULA  | 1-4 <sup>th</sup> ?   |                     |
| 20072 | PLAIN   | 13-16 <sup>th</sup>   |                     |
|       | RBRICK  |                       |                     |
| 20073 | FLOOR   | 11-12 <sup>th</sup>   | 11-12 <sup>th</sup> |
|       | FLUE    | 1-4 <sup>th</sup> ?   |                     |

|                                 |        |                     |                     |
|---------------------------------|--------|---------------------|---------------------|
|                                 | RBRICK | 1-4 <sup>th</sup> ? |                     |
| 20077                           | PLAIN  | 13-16 <sup>th</sup> | 13-16 <sup>th</sup> |
|                                 | RBRICK | 1-4 <sup>th</sup> ? |                     |
|                                 | TEGULA | 1-4 <sup>th</sup> ? |                     |
| 20078                           | RBRICK | 1-4 <sup>th</sup> ? | 1-4 <sup>th</sup> ? |
|                                 | TEGULA | 1-4 <sup>th</sup> ? |                     |
| 20079                           | IMBREX | 1-4 <sup>th</sup> ? | 1-4 <sup>th</sup> ? |
|                                 | RBRICK | 1-4 <sup>th</sup> ? |                     |
| 20082                           | TEGULA | 1-4 <sup>th</sup> ? | 1-4 <sup>th</sup> ? |
| 20084                           | RBRICK | 1-4 <sup>th</sup> ? | 1-4 <sup>th</sup>   |
|                                 | TEGULA | 1-4 <sup>th</sup> ? |                     |
| 20085                           | RBRICK | 1-4 <sup>th</sup> ? |                     |
| 20086                           | PLAIN  | 13-16 <sup>th</sup> | 13-16 <sup>th</sup> |
| 20087                           | RBRICK | 1-4 <sup>th</sup> ? | 1-4 <sup>th</sup> ? |
| 20090                           | IMBREX | 1-4 <sup>th</sup> ? | 1-4 <sup>th</sup> ? |
|                                 | RBRICK | 1-4 <sup>th</sup> ? |                     |
| 20091                           | IMBREX | 1-4 <sup>th</sup> ? | 1-4 <sup>th</sup> ? |
|                                 | RBRICK | 1-4 <sup>th</sup> ? |                     |
|                                 | TEGULA | 1-4 <sup>th</sup> ? |                     |
| 20092                           | IMBREX | 1-4 <sup>th</sup> ? | 1-4 <sup>th</sup> ? |
|                                 | RBRICK | 1-4 <sup>th</sup> ? |                     |
| 20093                           | IMBREX | 1-4 <sup>th</sup> ? | 1-4 <sup>th</sup> ? |
|                                 | RBRICK | 1-4 <sup>th</sup> ? |                     |
|                                 | TEGULA | 1-4 <sup>th</sup> ? |                     |
| 20094                           | RBRICK | 1-4 <sup>th</sup> ? | 1-4 <sup>th</sup> ? |
| 20095                           | RBRICK | 1-4 <sup>th</sup> ? | 1-4 <sup>th</sup> ? |
| 20096                           | RBRICK | 1-4 <sup>th</sup> ? | 1-4 <sup>th</sup> ? |
| 20097                           | RBRICK | 1-4 <sup>th</sup> ? | 1-4 <sup>th</sup> ? |
| 20099                           | RBRICK | 1-4 <sup>th</sup> ? | 1-4 <sup>th</sup> ? |
| <b>Trench 24 (YORYM:2000.7)</b> |        |                     |                     |
| 24001                           | BRICK  | 14 <sup>th</sup> +  | 14 <sup>th</sup> +  |
|                                 | PLAIN  | 13-16 <sup>th</sup> |                     |
|                                 | RBRICK | 1-4 <sup>th</sup> ? |                     |
| 24003                           | BRICK  | 16-18 <sup>th</sup> | 16-18 <sup>th</sup> |
|                                 | PLAIN  | 13-16 <sup>th</sup> |                     |
| 24004                           | BRICK  | 16 <sup>th</sup> +  | 16 <sup>th</sup> +  |
|                                 | PLAIN  | 13-16 <sup>th</sup> |                     |
| 24005                           | PLAIN  | 13-16 <sup>th</sup> | 13-16 <sup>th</sup> |
| 24008                           | PLAIN  | 13-16 <sup>th</sup> | 13-16 <sup>th</sup> |
| 24009                           | BRICK  | 14-15 <sup>th</sup> | 14-16 <sup>th</sup> |
|                                 | PLAIN  | 13-16 <sup>th</sup> |                     |
| 24019                           | NIB    | 13-16 <sup>th</sup> | 13-16 <sup>th</sup> |
|                                 | PLAIN  | 13-16 <sup>th</sup> |                     |
|                                 | RBRICK | 1-4 <sup>th</sup> ? |                     |
| 24025                           | PLAIN  | 13-16 <sup>th</sup> | 13-16 <sup>th</sup> |
| 24028                           | PLAIN  | 13-16 <sup>th</sup> | 13-16 <sup>th</sup> |

|       |         |                       |                       |
|-------|---------|-----------------------|-----------------------|
| 24030 | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup>   |
| 24032 | PEG     | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup>   |
|       | PLAIN   | 13-16 <sup>th</sup>   |                       |
| 24034 | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup>   |
| 24037 | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup>   |
| 24040 | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup>   |
| 24044 | BRICK   | 14-16 <sup>th</sup>   | 14-16 <sup>th</sup>   |
|       | PLAIN   | 13-16 <sup>th</sup>   |                       |
| 24045 | BRICK   | 14-15 <sup>th</sup>   | 14-16 <sup>th</sup>   |
|       | PEG     | 13-16 <sup>th</sup>   |                       |
|       | PLAIN   | 13-16 <sup>th</sup>   |                       |
| 24046 | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup>   |
| 24050 | BRICK   | 14-15 <sup>th</sup>   | 14-16 <sup>th</sup>   |
|       | PEG     | 13-16 <sup>th</sup>   |                       |
|       | PLAIN   | 14-16 <sup>th</sup>   |                       |
|       | RBRICK  | 1-4 <sup>th</sup> ?   |                       |
| 24051 | BRICK   | 14 <sup>th</sup> +    | 14-16 <sup>th</sup> ? |
|       | PEG     | 13-16 <sup>th</sup>   |                       |
|       | PLAIN   | 14-16 <sup>th</sup>   |                       |
| 24053 | BRICK   | 14-15 <sup>th</sup>   | 14-16 <sup>th</sup>   |
|       | PEG     | 13-16 <sup>th</sup>   |                       |
|       | PLAIN   | 13-16 <sup>th</sup>   |                       |
| 24054 | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup>   |
|       | RBRICK  | 1-4 <sup>th</sup> ?   |                       |
|       | RIDGE   | 13-16 <sup>th</sup>   |                       |
| 24055 | PLAIN   | 14-16 <sup>th</sup>   | 14-16 <sup>th</sup>   |
| 24056 | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup>   |
| 24057 | BRICK   | 14-15 <sup>th</sup>   | 14-16 <sup>th</sup>   |
|       | CRESTED | 13-16 <sup>th</sup>   |                       |
|       | PEG     | 13-16 <sup>th</sup>   |                       |
|       | PLAIN   | 13-16 <sup>th</sup>   |                       |
| 24058 | RBRICK  | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ?   |
| 24061 | IMBREX  | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ?   |
|       | RBRICK  | 1-4 <sup>th</sup> ?   |                       |
|       | TEGULA  | 1-4 <sup>th</sup> ?   |                       |
| 24062 | BRICK   | ?                     | 1-4 <sup>th</sup> ?   |
|       | FLUE    | 1-4 <sup>th</sup> ?   |                       |
|       | IMBREX  | 1-4 <sup>th</sup> ?   |                       |
|       | RBRICK  | 1-4 <sup>th</sup> ?   |                       |
|       | TEGULA  | 1-4 <sup>th</sup> ?   |                       |
| 24063 | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup>   |
| 24064 | FLUE    | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ?   |
|       | IMBREX  | 1-4 <sup>th</sup> ?   |                       |
|       | RBRICK  | 1-4 <sup>th</sup> ?   |                       |
|       | TEGULA  | 1-4 <sup>th</sup> ?   |                       |
| 24065 | FLANGED | 11-E 13 <sup>th</sup> | 13-16 <sup>th</sup>   |

|                                  |           |                       |                     |
|----------------------------------|-----------|-----------------------|---------------------|
|                                  | PLAIN     | 13-16 <sup>th</sup>   |                     |
|                                  | RBRICK    | 1-4 <sup>th</sup> ?   |                     |
| 24068                            | RBRICK    | 1-4 <sup>th</sup>     |                     |
| <b>Trench 8 (YORYM:2000.8)</b>   |           |                       |                     |
| 8000                             | PLAIN     | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 8007                             | BRICK     | 14-15 <sup>th</sup>   | 14-15 <sup>th</sup> |
|                                  | PLAIN     | 13-16 <sup>th</sup>   |                     |
| 8009                             | CURVED    | 11-E 13 <sup>th</sup> | 13-16 <sup>th</sup> |
| 8009                             | PLAIN     | 13-16 <sup>th</sup>   |                     |
| 8015                             | IMBREX    | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ? |
|                                  | RBRICK    | 1-4 <sup>th</sup>     |                     |
| 8017                             | RBRICK    | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ? |
| 8021                             | PEG       | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
|                                  | RBRICK    | 1-4 <sup>th</sup> ?   |                     |
| 8025                             | RBRICK    | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ? |
| 8027                             | PLAIN     | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 8028                             | RBRICK    | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ? |
| 8031                             | RBRICK    | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ? |
| 8036                             | RBRICK    | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ? |
| 8041                             | RBRICK    | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ? |
| 8047                             | RBRICK    | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ? |
| 8052                             | RBRICK    | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ? |
| 8053                             | IMBREX    | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ? |
|                                  | RBRICK    | 1-4 <sup>th</sup> ?   |                     |
| 8057                             | RBRICK    | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ? |
| 8060                             | RBRICK    | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ? |
| 8062                             | RBRICK    | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ? |
| 8063                             | RBRICK    | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ? |
| 8066                             | RBRICK    | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ? |
| 8069                             | RBRICK    | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ? |
| <b>Trench 25 (YORYM:2000.9)</b>  |           |                       |                     |
| 25001                            | RBRICK    | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ? |
| 25017                            | PLAIN     | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| <b>Trench 11 (YORYM:2000.10)</b> |           |                       |                     |
| 11001                            | PEG       | 13-16 <sup>th</sup>   | 14-16 <sup>th</sup> |
|                                  | PLAIN     | 14-16 <sup>th</sup>   |                     |
| 11002                            | PLAIN     | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 11003                            | BRICK     | 19 <sup>th</sup> +    | 19 <sup>th</sup> +  |
|                                  | PLAIN     | 13-16 <sup>th</sup>   |                     |
|                                  | RIDGE     | 13-16 <sup>th</sup>   |                     |
| 11004                            | WALL TILE | 1 <sup>st</sup>       | 1 <sup>st</sup>     |
| 11011                            | PLAIN     | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 11020                            | PLAIN     | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 11024                            | DAUB      | MED                   | MED                 |
| 11030                            | IMBREX    | 1-4 <sup>th</sup> ?   | 1-4 <sup>th</sup> ? |
| 11035                            | BRICK     | 14 <sup>th</sup> +    | 14 <sup>th</sup> +  |

|                                  |         |  |                     |
|----------------------------------|---------|--|---------------------|
| 11055                            | RBRICK  | 1-4 <sup>th</sup> ?                      | 1-4 <sup>th</sup> ? |
| <b>Trench 33 (YORYM:2000.11)</b> |         |  |                     |
| 33000                            | PEG     | 13-16 <sup>th</sup>                      | 13-16 <sup>th</sup> |
| 33002                            | BRICK   | 14 <sup>th</sup> +                       | 17 <sup>th</sup> +  |
|                                  | PAN     | 17 <sup>th</sup> +                       |                     |
|                                  | PEG     | 13-16 <sup>th</sup>                      |                     |
|                                  | PLAIN   | 13-16 <sup>th</sup>                      |                     |
| 33020                            | BRICK   | 14-15 <sup>th</sup>                      | 14-16 <sup>th</sup> |
|                                  | PLAIN   | 13-16 <sup>th</sup>                      |                     |
| <b>Trench 12 (YORYM:2000.12)</b> |         |  |                     |
| 12001                            | BRICK   | 14-15 <sup>th</sup>                      | 14-16 <sup>th</sup> |
|                                  | CRESTED | 13-16 <sup>th</sup>                      |                     |
|                                  | PLAIN   | 13-16 <sup>th</sup>                      |                     |
| 12003                            | BRICK   | 14-15 <sup>th</sup> /16-18 <sup>th</sup> | 16-18 <sup>th</sup> |
|                                  | FLOOR   | L14-16 <sup>th</sup>                     |                     |
|                                  | PEG     | 13-16 <sup>th</sup>                      |                     |
| 12003                            | PLAIN   | 14-16 <sup>th</sup>                      |                     |
| 12004                            | PLAIN   | 13-16 <sup>th</sup>                      | 13-16 <sup>th</sup> |
| 12005                            | PLAIN   | 13-16 <sup>th</sup>                      | 13-16 <sup>th</sup> |
| 12007                            | BRICK   | 14-15 <sup>th</sup>                      | 14-16 <sup>th</sup> |
|                                  | PEG     | 13-16 <sup>th</sup>                      |                     |
|                                  | PLAIN   | 13-16 <sup>th</sup>                      |                     |
| 12008                            | BRICK   | 14 <sup>th</sup> +                       | 14-16 <sup>th</sup> |
|                                  | CRESTED | 13-16 <sup>th</sup>                      |                     |
|                                  | PEG     | 13-16 <sup>th</sup>                      |                     |
|                                  | PLAIN   | 14-16 <sup>th</sup>                      |                     |
|                                  | RIDGE   | 13-16 <sup>th</sup>                      |                     |
| 12011                            | PEG     | 13-16 <sup>th</sup>                      | 13-16 <sup>th</sup> |
|                                  | PLAIN   | 13-16 <sup>th</sup>                      |                     |
|                                  | STONE   | -  |                     |
| 12012                            | BRICK   | 14-15 <sup>th</sup>                      | 14-16 <sup>th</sup> |
|                                  | PAN     | 17 <sup>th</sup> +                       |                     |
|                                  | PEG     | 13-16 <sup>th</sup>                      |                     |
|                                  | PLAIN   | 13-16 <sup>th</sup>                      |                     |
| 12013                            | BRICK   | 14-15 <sup>th</sup>                      | 14-16 <sup>th</sup> |
|                                  | PEG     | 13-16 <sup>th</sup>                      |                     |
|                                  | PLAIN   | 14-16 <sup>th</sup>                      |                     |
|                                  | STONE   | -  |                     |
| 12014                            | PLAIN   | 13-16 <sup>th</sup>                      | 13-16 <sup>th</sup> |
| 12015                            | BRICK   | 14-15 <sup>th</sup>                      | 14-16 <sup>th</sup> |
|                                  | PEG     | 13-16 <sup>th</sup>                      |                     |
|                                  | PLAIN   | 13-16 <sup>th</sup>                      |                     |
|                                  | TEGULA  | 1-4 <sup>th</sup> ?                      |                     |
| 12016                            | PLAIN   | 13-16 <sup>th</sup>                      | 13-16 <sup>th</sup> |
|                                  | RBRICK  | 1-4 <sup>th</sup> ?                      |                     |
| 12018                            | BRICK   | 14-15 <sup>th</sup>                      | 13-16 <sup>th</sup> |

|                                  |         |                       |                     |
|----------------------------------|---------|-----------------------|---------------------|
|                                  | PLAIN   | 13-16 <sup>th</sup>   |                     |
|                                  | RIDGE   | 13-16 <sup>th</sup>   |                     |
| 12019                            | BRICK   | 14-15 <sup>th</sup>   | 14-16 <sup>th</sup> |
|                                  | PLAIN   | 13-16 <sup>th</sup>   |                     |
| 12020                            | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 12021                            | BRICK   | 14-15 <sup>th</sup>   | 14-16 <sup>th</sup> |
|                                  | PEG     | 13-16 <sup>th</sup>   |                     |
|                                  | PLAIN   | 14-16 <sup>th</sup>   |                     |
|                                  | RIDGE   | 13-16 <sup>th</sup>   |                     |
| 12022                            | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
|                                  | RIDGE   | 13-16 <sup>th</sup>   |                     |
| 12023                            | BRICK   | 14 <sup>th</sup> +    | 14-16 <sup>th</sup> |
|                                  | PLAIN   | 13-16 <sup>th</sup>   |                     |
|                                  | RIDGE   | 13-16 <sup>th</sup>   |                     |
| 12024                            | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 12025                            | BRICK   | 14-15 <sup>th</sup>   | 14-16 <sup>th</sup> |
|                                  | PLAIN   | 13-16 <sup>th</sup>   |                     |
|                                  | RBRICK  | 1-4 <sup>th</sup> ?   |                     |
| 12026                            | PEG     | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
|                                  | PLAIN   | 13-16 <sup>th</sup>   |                     |
|                                  | RBRICK  | 1-4 <sup>th</sup> ?   |                     |
|                                  | RIDGE   | 13-16 <sup>th</sup>   |                     |
| 12027                            | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
|                                  | RBRICK  | 1-4 <sup>th</sup> ?   |                     |
| <b>Trench 13 (YORYM:2000.13)</b> |         |                       |                     |
| 13001                            | BRICK   | 14-15 <sup>th</sup>   | 14-16 <sup>th</sup> |
| 13001                            | PLAIN   | 13-16 <sup>th</sup>   |                     |
| 13004                            | BRICK   | 14-15 <sup>th</sup>   | 14-16 <sup>th</sup> |
|                                  | PEG     | 13-16 <sup>th</sup>   |                     |
|                                  | PLAIN   | 13-16 <sup>th</sup>   |                     |
|                                  | RBRICK  | 1-4 <sup>th</sup> ?   |                     |
|                                  | TEGULA  | 1-4 <sup>th</sup> ?   |                     |
| 13007                            | IMBREX  | 1-4 <sup>th</sup> ?   | 13-16 <sup>th</sup> |
|                                  | PEG     | 13-16 <sup>th</sup>   |                     |
|                                  | PLAIN   | 13-16 <sup>th</sup>   |                     |
|                                  | RBRICK  | 1-4 <sup>th</sup> ?   |                     |
|                                  | TEGULA  | 1-4 <sup>th</sup> ?   |                     |
| 13011                            | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 13014                            | PLAIN   | 14-16 <sup>th</sup>   | 14-16 <sup>th</sup> |
| 13015                            | PLAIN   | 14-16 <sup>th</sup>   | 14-16 <sup>th</sup> |
| 13019                            | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 13021                            | FLANGED | 11-E 13 <sup>th</sup> | 13-16 <sup>th</sup> |
|                                  | PEG     | 13-16 <sup>th</sup>   |                     |
|                                  | PLAIN   | 13-16 <sup>th</sup>   |                     |
| 13026                            | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 13027                            | PLAIN   | 14-16 <sup>th</sup>   | 14-16 <sup>th</sup> |

|                                  |         |                       |                     |
|----------------------------------|---------|-----------------------|---------------------|
| 13058                            | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 13060                            | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 13064                            | BRICK   | 14-15 <sup>th</sup>   | 14-16 <sup>th</sup> |
|                                  | CURVED  | 11-E 13 <sup>th</sup> |                     |
|                                  | FLANGED | 11-E 13 <sup>th</sup> |                     |
|                                  | IMBREX  | 1-4 <sup>th</sup> ?   |                     |
|                                  | PLAIN   | 13-16 <sup>th</sup>   |                     |
| 13070                            | BRICK   | 14-15 <sup>th</sup>   | 14-16 <sup>th</sup> |
|                                  | PEG     | 13-16 <sup>th</sup>   |                     |
|                                  | PLAIN   | 14-16 <sup>th</sup>   |                     |
| 13076                            | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 13079                            | HIP     | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
|                                  | PEG     | 13-16 <sup>th</sup>   |                     |
|                                  | PLAIN   | 13-16 <sup>th</sup>   |                     |
| 13080                            | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 13083                            | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 13087                            | PLAIN   | 14-16 <sup>th</sup>   | 14-16 <sup>th</sup> |
| <b>Trench 14 (YORYM:2000.14)</b> |         |                       |                     |
| 14010                            | BRICK   | 16-18 <sup>th</sup>   | 17-18 <sup>th</sup> |
|                                  | FLOOR   | 17-18 <sup>th</sup> ? |                     |
|                                  | PLAIN   | 13-16 <sup>th</sup>   |                     |
| 14017                            | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 14019                            | PEG     | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
|                                  | PLAIN   | 13-16 <sup>th</sup>   |                     |
|                                  | RIDGE   | 13-16 <sup>th</sup>   |                     |
| 14022                            | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |
| 14026                            | PLAIN   | 13-16 <sup>th</sup>   | 13-16 <sup>th</sup> |

## **9. SMALL FINDS ASSESSMENT**

### **9.1 Trench 8 (YORYM:2000.8)**

#### **9.1.1 Copper alloy**

There were three copper alloy objects. Small find 15 is a possible pin shank, and small find 26 is a medieval buckle. Small find 20 appears to be a sheet offcut.

#### **9.1.2 Bone/Antler**

Small finds 5 and 6 are both horn cores. Small find 2 is a tooth plate fragment from a single-sided composite comb, and small find 17 is a skate. Small find 21 may be an unworked fragment.

#### **9.1.3 Fired clay**

Small find 23 is a counter or pot lid made from a Roman pot sherd (see 7.3 above).

#### **9.1.4 Glass**

Both small finds 1 and 18 are vessel fragments which may be Roman or modern.

#### **9.1.5 Stone**

Small find 4 is a spindle whorl of Anglo-Norman form.

#### **9.1.6 Flint**

Small find 3 appears to be an unworked flint fragment.

#### **9.1.7 Conclusions**

This assemblage contains some probable Anglian or Anglo-Scandinavian objects, namely the comb fragment (small find 2) and the skate (small find 17), a spindle whorl of Anglo-Norman form (small find 4), and a copper alloy buckle (small find 26) of medieval date. The horn core fragments (small finds 5 and 16) could be Anglian – medieval or later.

### **9.2 Trench 11 (YORYM:2000.10)**

#### **9.2.1 Coins**

Small find 2 is an unidentifiable copper alloy coin – further conservation treatment may enable identification.

#### **9.2.2 Bone/Antler**

The only antler object is small find 1 which is an offcut, and likely to be Anglian or Anglo-Scandinavian in date. The bone comb tooth plate small find 3 is of similar date. The toggle/buzz bone small find 8 could be contemporary.

#### **9.2.3 Stone**

Small find 4 appears to be a Roman tessera.

#### **9.2.4 Conclusion**

All of this small assemblage appears to be Roman or Anglian/Anglo-Scandinavian.

### **9.3 Trench 12 (YORYM:2000.12)**

#### **9.3.1 Copper alloy**

Medieval pins (small finds 1, 4 and 24) and probable pin-making debris (small finds 12, 13 and 22) were recovered. Small finds 5 and 30 are both lace tags of c.14<sup>th</sup> – 16<sup>th</sup> century date, and small finds 8 and 10 are both medieval bar mounts from belts; small find 42 may be a medieval pendent belt mount. Other miscellaneous objects include a hinge (small find 3), a possible needle (small find 11), a perforated plate (small find 25), an offcut (small find 9) and fragments (small find 29) of sheet, and unidentifiable lumps or fragments (small finds 28, 46-8, 52 and 66).

#### **9.3.2 Lead alloy**

Small find 2 is a tube of unknown function, and small finds 36-7 are waste fragments.

#### **9.3.3 Fired clay**

Small find 51 is a post-medieval tobacco pipe, small find 19 a crucible fragment, and small finds 57 and 60 pot lids/counters cut from medieval tiles.

#### **9.3.4 Glass**

Small find 6 appears to be post-medieval window glass.

#### **9.3.5 Stone**

Small find 49 has been identified as a leather workers' honestone.

#### **9.3.6 Flint**

Small find 35 may be a struck flake.

#### **9.3.7 Conclusion**

All this material appears to be of medieval or later date.

### **9.4 Trench 13 (YORYM:2000.13)**

#### **9.4.1 Copper alloy**

Small find 6 is a Roman fibula brooch fragment. The remaining copper alloy comprises a strip (small find 9), a sheet fragment (small find 13) and an unidentified object (small find 18).

#### **9.4.2 Lead alloy**

Small find 2 is an unidentified lead alloy fragment.

#### **9.4.3 Bone**

Small find 3 is a 13<sup>th</sup> – 16<sup>th</sup> century parchment pricker/stylus.

#### **9.4.4 Fired clay**

Small finds 17 and 19 are pot lids/counters, the latter made from a 13<sup>th</sup> century York glazed ware sherd. Small find 10 is a post-medieval tobacco pipe fragment.

**9.4.5 Glass**

Both glass fragments (small finds 1 and 5) appear to be of medieval window glass

**9.4.6 Flint**

Small find 15 appears to be an unworked flint fragment

**9.4.7 Conclusion**

Apart from the Roman brooch fragment, this assemblage appears to be largely from the period of the 13<sup>th</sup>-16<sup>th</sup> centuries.

**9.5 Trench 14 (YORYM:2000.14)**

**9.5.1 Fired clay**

Small find 3 is a post-medieval tobacco pipe fragment, and small find 12 a counter/pot lid cut from a medieval tile.

**9.5.2 Glass**

All the glass fragments (small finds 1, 4-6 and 9) appeared post-medieval or modern.

**9.5.3 Conclusion**

This appears to be a small, post-medieval group of material.

**9.6 Trench 15 (YORYM:2000.2)**

**9.6.1 Copper alloy**

Small find 26 appears to be a post-medieval pin. Small find 35 is a small chain fragment, small find 51 is a rod; both are of unknown date.

**9.6.2 Bone/Antler**

Small finds 37 and 00043 may be butchered fragments rather than artefacts. Small finds 44 – 45 are both pinner's bones, used in the manufacture of non-ferrous pins, and probably of 15<sup>th</sup> – 17<sup>th</sup> century date. Small find 62 appears to have been shaped but may be unfinished. Small find 28 is a post medieval or modern button.

**9.6.3 Fired clay**

Small finds 5, 12-14, 17, 21-22, 27, 30-32, 34, 64, 74 and 80 are all post-medieval tobacco pipe fragments. Small find 72 is a pot lid or counter made of medieval tile. Small finds 76-7 appear to be mould or crucible fragments.

**9.6.4 Glass**

Small finds 6-10, 29, 40, 46 and 78 are all vessel glass fragments. All appear post-medieval apart from small find 78 which may be medieval.

**9.6.5 Stone**

Small find 73 is a hone of unknown date.

**9.6.6 Plaster**

Small finds 41-2 and 66-7 are fragments of plaster; small find 41 appears to retain traces of paint.

**9.6.7 Conclusion**

Perhaps a late medieval – post-medieval group of material, with indications of pin-making provided by the pinners' bones, although there is no other debris as one might expect.

**9.7 Trench 16 (YORYM:2000.3)**

**9.7.1 Fired clay**

Small find 2 is a tobacco pipe fragment of post-medieval date.

**9.7.2 Glass**

Both glass finds (small finds 1 and 7) appear to be modern.

**9.7.3 Plaster**

Small find 3 is a fragment of modern plaster

**9.7.4 Conclusion**

All the datable finds appeared to be post-medieval to modern in date.

**9.8 Trench 18 (YORYM:2000.4)**

**9.8.1 Glass**

Small find 1 was a glass fragment of probably post-medieval date.

**9.8.2 Conclusion**

The single find is probably of post-medieval date.

**9.9 Trench 19 (YORYM:2000.5)**

**9.9.1 Fired clay**

Small finds 2 and 3 are post-medieval tobacco pipe fragments.

**9.9.2 Glass**

Small find 1 is a fragment of post-medieval vessel glass

**9.9.3 Conclusion**

All finds are post-medieval

## **9.10 Trench 20 (YORYM:2000.6)**

### **9.10.1 Coin**

Small find 200 is a silver coin of Trajan (AD.96/8-117).

### **9.10.2 Copper alloy**

Small finds 62-64 represent belt accessories, comprising a forked spacer buckle (small find 62), a strap guide (small find 63) and a mount (small find 64); all came from the same context (20028). Another possible mount is small find 69. All are likely to be 13<sup>th</sup>/14<sup>th</sup> – 15<sup>th</sup> century in date. Small find 119 is the foot from a cast vessel, probably a 14<sup>th</sup> – 15<sup>th</sup> century cooking vessel. Rods and wire (small finds 1, 8, 19, 22, 35, 38, 45) were recovered from several contexts – these may have been used to make pins, such as small find 27. Miscellaneous objects include discs (small finds 4 and 66), hooks (small finds 26 and 40), plate fragments (small finds 42 and 46), strip fragments (small finds 36, 88, 120 and 155) and unidentified object (small find 47); unidentified fragments comprise (small finds 41 and 90).

### **9.10.3 Lead alloy**

Apart from a window came fragment (small find 21), all the lead alloy finds were unidentifiable (small finds 20, 49, 111 and 218).

### **9.10.4 Bone/Antler**

An offcut was the only antler artefact which was found (small find 195). The bone objects included two pinner's bones (small finds 43 and 184) which may be 15<sup>th</sup> – 17<sup>th</sup> century in date, a pricker or stylus (small find 87), probably 13<sup>th</sup> – 16<sup>th</sup> century in date, and two miscellaneous worked fragments (small find 65 and 196). Small find 125 is an unworked bone fragment.

### **9.10.5 Fired clay**

Pot lids and counters of medieval tile were found (small finds 186, 191 and 221); small finds 2 and 130 are post-medieval tobacco pipe fragments.

### **9.10.6 Glass**

Of four glass fragments (small finds 44, 50, 86 and 212), only small find 50 appeared identifiable (medieval window glass).

### **9.10.7 Stone**

Small find 187 appears to be a Roman tessera, small find 160 is a lava quern fragment which is most likely to be from the Anglian or Anglo-Scandinavian period, and small find 189 is a medieval mortar fragment. Small find 202 is an unidentified fragment, while small find 14 is possibly a gemstone fragment.

### **9.10.8 Flint**

Small find 216 is a possible flake.

### **9.10.9 Leather**

There was a single find, small find 146, from this trench, comprised of two shoe fragments and a number of offcuts.

The find was recovered from Context 20060, a pit fill. The footwear components appear to be of late medieval date (14<sup>th</sup>/15<sup>th</sup> century).

The material consists of a turnshoe sole seat from a two piece sole and a waist fragment from the same sole. There is also a number of offcuts from leatherworking activity, of both primary and secondary offcut types.

#### **9.10.10 Shale(?)**

Small find 185 was of uncertain identification, but was thought possibly to be a fragment of worked shale

#### **9.10.11 Conclusion**

There appears to be evidence of activity here from the Anglian/Anglo-Scaninavian to post-medieval periods; a couple of Roman objects may indicate previous activity here also. Late medieval – post-medieval pin-making was clearly undertaken here.

### **9.11 Trench 24 (YORYM:2000.7)**

#### **9.11.1 Copper alloy**

Medieval dress accessories include a 14<sup>th</sup> – 16<sup>th</sup> century multifoil mount (small find 27), and a possible lace tag (small find 34) which probably dates to 13<sup>th</sup>-14<sup>th</sup> centuries. Small find 23 is a buckle of uncertain date. Miscellaneous objects include a tack (small find 5) and a tiny ring with shank (small find 6); small find 39 and 48 are unidentified. The remainder of the copper alloy assemblage comprises sheet offcuts (small finds 17, 25, 28, 31, 38, 41 and 47), pins (small finds 26, 29, 36, 43 and 46) and pin-making debris (small finds 16, 30, 35, 37, 42 and 54).

#### **9.11.2 Lead alloy**

Both small find 3 and 24 appear to be manufacturing debris

#### **9.11.3 Bone/antler**

Small finds 19-20 and 49 are all antler offcuts, probably from the manufacture of combs; small find 21 is an unfinished ?bone comb tooth plate. All these pieces are likely to be Anglian or Anglo-Scandinavian in date.

#### **9.11.4 Fired clay**

Small finds 32-33 and 40 are all post-medieval tobacco pipe fragments; small find 58 is a lid/counter made from a re-used tile. Small find 11 is of unknown function and date.

#### **9.11.5 Glass**

Small find 15 may be a linen smoother fragment of Anglo-Scandinavian or medieval date. Small find 50 appears to be medieval window glass.

#### **9.11.6 Stone**

Small finds 52-53 are both lava quernstone fragments, and are likely to be Anglian or Anglo-Scandinavian in date.

### 9.11.7 Leather

Three finds, comprising seven footwear fragments and a quantity of leatherworking waste.

| Context               | Small find number | Description  |
|-----------------------|-------------------|--|
| 24053 (Dump)          | 14                | Primary and secondary offcuts                            |
| 24057 (Dump)<br>waste | 18                | Footwear components (probably 15 <sup>th</sup> century), |
| 24057 (Dump)<br>waste | 45                | Footwear components (probably 15 <sup>th</sup> century), |

Small find 14 is comprised entirely of primary and secondary offcuts, indicative of manufacturing.

Small find 18 comprises a waist fragment from a turnshoe sole, and an edge fragment from a similar sole. The waist fragment is narrow, a feature diagnostic of a late medieval – probably fifteenth century – date. There is also a quantity of secondary offcuts (some possibly primary) and tertiary trimmings.

Small find 45 consists of a turnshoe sole (left foot) with the seat torn away; the pointed toe from a late medieval turnshoe sole; an uppers fragment from a side-laced shoe or boot of similar date; two turnshoe sole edge fragments; and an unidentified fragment, also from a turnshoe. There is a quantity of leatherworking waste, including primary offcuts (large), secondary offcuts and tertiary trimmings.

The footwear components are of a type commonly found in York and elsewhere and add little to the body of knowledge. The offcuts suggest manufacturing activity and a few are particularly diagnostic of footwear manufacture. Tanning or other leather processing activity is attested to by the presence of primary offcuts. One of the larger offcuts has a stamped mark, which may be a tanners' mark and warrants further investigation.

Tanning in this area is hinted at by local place name evidence (Gillian Fellows-Jensen in Carlisle, Cameron and Mould, in preparation), and oak bark (used in the tanning process) has been found in the excavations at nearby Layerthorpe Bridge (Hall in Carlisle, Cameron and Mould, in preparation). This leather assemblage may be seen as adding to this small body of evidence for an important medieval industry in this area, about which relatively little is known. Further excavation may shed more light upon leather manufacturing and processing activity in this part of York.

### 9.11.8 Conclusion

This group contains Anglian/Anglo-Scandinavian – late medieval/post medieval material with possible comb-making in the former and pin-making, hide processing/tanning, shoe-making and cobbling in the latter.

**9.12 Trench 25 (YORYM:2000.9)**

**9.12.1 Fired clay**

Small finds 1, 2 and 5 are post-medieval tobacco pipe fragments. Small find 6 is a pot lid or counter cut from a medieval tile

**9.12.2 Plaster**

Small find 3 comprises two fragments of probably modern plaster

**9.12.3 Conclusion**

Probably a post-medieval group.

**9.13 Trench 33 (YORYM:2000.11)**

**9.13.1 Fired clay**

Small finds 3, 5 and 8 are all post-medieval tobacco pipe fragments.

**9.13.2 Glass**

Small finds 6-7 and 9 are post-medieval vessel fragments.

**9.13.3 Plaster**

Small find 4 is comprised of undated plaster fragments.

**9.13.4 Conclusion**

Another small post-medieval group.

**9.14 Table of non-ferrous materials (indicating date and nature of assemblage)**

| Trench no. | Roman | Ang/Ascan | Med. | Postmed. | Domestic | Indust. | Neither |
|------------|-------|-----------|------|----------|----------|---------|---------|
| 8          |       | x         | x    |          | ?        |         |         |
| 11         | x     | x         |      |          | ?        |         |         |
| 12         |       |           | x    |          | x        | x       |         |
| 13         | x     |           | x    |          | x        |         |         |
| 14         |       |           |      | x        |          |         | x       |
| 15         |       |           | x    | x        |          | ?       |         |
| 16         |       |           |      | x        |          |         | x       |
| 18         |       |           |      | x        |          |         | x       |
| 19         |       |           |      | x        |          |         | x       |
| 20         | x     | x         | x    |          | x        | x       |         |
| 24         |       | x         | x    |          | x        | x       |         |
| 25         |       |           |      | x        |          |         | x       |
| 33         |       |           |      | x        |          |         | x       |

**NB** Where little material present, nature of assemblage = neither

**NNBB** Roman material is represented by individual finds only

**NNNBBB** No slag included

## **9.15 IRONWORK**

There were c.100 iron objects from Hungate not counting nails (c.200), most of which come from medieval contexts. They include (context number followed by small find number):

### **9.15.1 Tools and implements**

Awl (context 33002) small find 1, punch (context 20036) small find 93, pincers (context 15007) small find 23, socketed fork (context 24061) small find 57, bell case (context 20085) small find 85 and twelve knives or parts of knives – (context 15032) small find 50; (context 15019) small find 59; (context 15019) small find 60; (context 20005) small finds 15, 16 and 18 (tang only); (context 20016) small find 31; (context 20028) small find 98; (context 20070) small find 138; (context 20077) small find 161; (context 12013) small find 7; (context 12015) small find 41.

### **9.15.2 Fibre processing spikes**

These were recovered from (context 20044) small find 101; (context 8024) small find 22; and (context 12013) small find 26.

### **9.15.3 Structural ironwork and fittings**

A large pierced strap (?once part of a hinge strap) was recovered from (context 15002) small find 15; a latch rest from (context 20033) small find 176; a hinge pivot from (context 20047) small find 199; a U-eyed hinge from (context 8025) small find 7, chain links (plated) from (context 11081) small find 9, a small strap terminal from (context 20033) small find 112; and a casket fitting from (context 20025) small find 118.

### **9.15.4 Locks and keys**

A key (plated) was recovered from (context 15007) small find 65 and a lock plate and mechanism from (context 20005) small find 17.

### **9.15.5 Horseshoes**

Fragments identified as parts of horseshoes were recovered from (Context 20000) small find 23; (context 20013) small find 51 and (context 20016) small find 67.

### **9.15.6 Weapons**

An arrowhead was recovered from (context 20016) small find 30 and an arrow tip from (context 12007) small find 59.

### **9.15.7 Unidentifiable Objects**

A small strip with an eye at one end was recovered from (context 8015) small find 14 and a three pronged item from (context 12015) small find 41.

### **9.15.8 Conclusion**

This is an assemblage of ironwork typical of what would be expected from medieval occupation-derived deposits in York. Objects of interest from a typological point of view are few but include knives from Trench 15 (small finds 50 and 59) which are probably Anglo-Scandinavian and knives context from Trench 20 (small finds 15 and 16) which are late medieval and have non-ferrous shoulder plates. Small find 7 from Trench 12 appears to be quite a large knife and may have remains of its sheath surviving. Trench 24 small find 57 is a socketed fork very similar to an

Anglo-Scandinavian example from Coppergate (AY17/6 2989). Trench 20, small find 85 is a small medieval bell case, which may be copper plated. Trench 20, small find 118 is a casket fitting with a decorative terminal which is tin plated; it is medieval and similar to examples from Bedern and Coppergate. Trench 20 small find 17 is a typical medieval lock with both the mechanism and plate surviving which probably came from a chest.

#### **9.15.9 Recommendations**

The objects referred to in the previous paragraph should be conserved with a view to illustration. Investigative conservation is required for the two objects of unknown function (8.14, 12.41). Plating on key 2.65 and chain links 10.9 should be identified.

### **10. ARCHITECTURAL STONE CATALOGUE**

Thirteen architectural fragments were recorded on the Hungate excavations, all of which were of limestone and all of which were of medieval date. The majority of the fragments almost certainly originated from the church of St John in the Marsh (AF 1, 2, 3, 5, 6, 7, and 8), and included a portions of jambs, bases, a chamfered block, a voussoir and part of a plinth. The architectural fragments located within trench 24 (AF 9, 10 and 13) may have originally been part of the fabric of the Carmelite friary. Two of these fragments were from a plinth, while the third was curvilinear tracery from a decorated gothic window. Architectural stone 4 from trench 11, was a medieval post-pad. The remaining fragment (AF11 from trench 8) was a tiny redeposited fragment, and could have originated from either St. Johns church or All Saints Haymarket church. Most of the fragments were not retained but were recorded and reburied in Trench 24.

- AF1 Context 13001  
Size 193 x 127 x 115mm  
Limestone. Fragment, probably from a window jamb. Almost certainly from the parish church of St John in the Marsh originally. Slightly burnt. Length of stone indeterminate due to broken nature. One finely worked face surviving, with punched parallel tooling visible. Not retained, reburied on site.
- AF2 Context 13001  
Size 207 x 201 x 145mm  
Limestone. Fragment with chamfer on one face. Rows of parallel punched tooling visible on three faces. Almost certainly from the parish church of St John in the Marsh originally. Not retained, reburied on site.



- AF3 Context 13001  
Size 255 x 186 x 125mm  
Limestone. Fragment of a base. Smooth exterior face, no visible tooling lines. Almost certainly from the parish church of St John in the Marsh originally.
- AF4 Context 11000  
Size 110 x 280 x 250mm  
Limestone. Post-pad. Partly broken. Probably originally roughly rectangular. Shallow rectangular socket 190 x 160mm in size and 20mm deep on upper surface. No tooling marks visible.
- AF5 Context 14011  
Size 160 x 270 x 193mm  
Limestone. Highly complex fragment, clearly part of a large column base, or possibly part of an abacus, originally. Curving outer face with roll. Interior face has three deep sockets, all circular, two with associated shallower triangular sockets. The sockets are clearly for keying the block into adjacent masonry. Two rusted iron fragments adhering to one face, a third adhering to the exterior face. Impossible to say if these were later additions to the block. Almost certainly from the parish church of St John in the Marsh.
- AF6 Context 16166  
Size 255 x 270 x 215mm  
Limestone. Post-pad made from a re-used voussoir, probably from the church of St John in the Marsh originally. Trapezoidal in shape. Roughly faced on all sides, three distinct types of tooling seen (parallel draught tooling lines, flat chisel marks, deep grooves with a

'V' shaped profile). The coarseness of the tooling suggests the voussoir would have been within the thickness of a wall, i.e. not visible from within the church. Not retained, reburied on site.



- AF7 Context 12000  
Size 162 x 250 x 195mm  
Limestone. Badly broken fragment clearly re-used as mortar adheres to what would have been two original exterior faces of the block. Probably originally rectangular with a chamfered upper face. Probably from a plinth. Almost certainly from the parish church of St John in the Marsh originally. Not retained, reburied on site.
- AF8 Context 12000  
Size 240 x 340 x 265mm  
Limestone. Roughly 'L' shaped block. Vertical chamfer and rebate. Linear socket and square socket on rebated face, 'Y' shaped socket on upper face. Some very faint fine tooling lines in parallel draughts visible on upper surface. Part of a door or window jamb. Almost certainly from the parish church of St John in the Marsh originally.
- AF9 Context 24000  
Size 180 x 450 x 430mm  
Limestone. Large broken rectangular block with chamfered upper surface. Part of a plinth. Tooling visible on two faces, consisting of parallel rows of small rectangular clawed lines. Lime adhering to upper surface. Not retained, reburied on site.
- AF10 Context 24000  
Size 205 x 470 x 268mm  
Limestone. Large broken rectangular block with chamfered upper surface. Part of a plinth. Chamfer and two adjacent faces and one end finely dressed. Other faces roughly cut. Not retained, reburied on site.

- AF11 Context 8021  
Size 70 x 70 x 50mm  
Limestone. Tiny fragment from an ashlar block. Part of two external faces visible both with fine tooling lines in parallel draughts. Not retained, reburied on site.
- AF12 Context 13004  
Size 110 x 90 x 75mm  
Limestone. Tiny fragment from an ashlar block. Part of two external faces visible, both with fine tooling lines in parallel draughts. Not retained, reburied on site.
- AF13 Context 24086  
Size 330 x 260 x 255mm  
Limestone. Highly complex fragment of window tracery, including part of the window arch. Curvilinear tracery dating to the Decorated Gothic period. Tooling and setting out lines visible on all exterior faces. Coarser tooling on the one face which would originally have been within the thickness of the wall.





## **11. ENVIRONMENTAL ASSESSMENT**

### **11.1 Summary**

*Fourteen evaluation trenches, excavated in the Hungate area of York, yielded a total of 73 samples, 44 boxes of bone and a single box of shell. These were submitted to the EAU for evaluation of their bioarchaeological potential.*

*Three deposits yielded modest to large assemblages of plant remains preserved by anoxic waterlogging, a feature of all of which was the presence of peatland taxa and/or peat fragments. Suites of insect remains suggesting that deposits included stable manure were obtained. It is possible that the peat was part of a stable manure component, having been used as litter in animal housing, though archaeobotanically the assemblages were not typical of those thought to contain stable manure.*

*Certain of the samples from this evaluation exercise should be recorded in detail for future synthesis. Deposits should not be destroyed by development without archaeological excavation, appropriate sampling, and provision for post-excavation analysis and publication.*

*The bias of the recovered shellfish towards edible taxa, together with the percentage of shells showing evidence of having been opened using tools, strongly suggests that this assemblage derives almost exclusively from human food waste, but it is too small and too poorly preserved to be of any further value for interpretation. The very few land snail remains were of no interpretative value.*

*Useful bodies of vertebrate material, dating to a range of periods, have been recovered from some of the excavated trenches and show some potential for providing both zooarchaeological and archaeological interpretation.*

### **11.2 Introduction**

During the first quarter of 2000, fourteen evaluation trenches were excavated by York Archaeological Trust in the Hungate area of the city. The trenches were spread across the development area with a view to investigating the nature and extent of the archaeological deposits prior to the redevelopment of the site.

A total of 73 sediment samples (from 46 contexts), 44 boxes of bone (each box approximately 20 litres) and 1 box of shell were submitted for evaluation of their potential for further bioarchaeological work.

### **11.3 Methods**

#### *11.3.1 Sediment samples*

Twenty-one samples were selected for evaluation on the basis of information supplied by the excavators and an initial examination of all the submitted samples. Descriptions of the lithologies of the selected samples were recorded using a standard *pro forma*. Subsamples were taken from

eleven 'GBA' (*sensu* Dobney *et al.* 1992) samples for extraction of macrofossil remains following procedures of Kenward *et al.* (1980; 1986), whilst six samples were bulk-sieved. Samples 6 (Context 16025) and 69 (Context 24027) were treated as 'Spot' samples. Two additional samples were described, but no further work was undertaken. Table 1 details the processing/treatment of the samples.

The resulting flots/washovers and residues were examined for plant, invertebrate and vertebrate remains.

### 11.3.2 *Hand-collected shell*

One box of hand-collected shell (representing material from 82 contexts, 13 of which were either undated or too broadly dated for classification, from 12 trenches) were submitted. Brief notes were made on the preservational condition of the shell (using 4-point scales for erosion and fragmentation: 0 - none; 1 - slight; 2 - moderate; 3 - high) and the remains identified to species where possible.

For oyster (*Ostrea edulis* L.) shell (by far the majority of the remains) additional notes were made regarding: numbers of left and right valves; evidence of having being opened using a knife or similar implement; measurability of the valves; damage from other marine biota (polychaet worms and dog whelks); encrustation by barnacles.

### 11.3.3 *Vertebrate remains*

For the hand-collected vertebrate remains that were recorded, data were entered directly into a series of tables using a purpose-built input system and *Paradox* software. Subjective records were made of the state of preservation, colour of the fragments, and the appearance of broken surfaces ('angularity'). Additionally, for the larger assemblages, notes were made concerning fragment size, dog gnawing, burning, butchery and fresh breaks.

Where possible, fragments were identified to species or species group, using the reference collection at the Environmental Archaeology Unit, University of York. Fragments not identifiable to species were described as the 'unidentified' fraction. Within this fraction fragments were grouped into a number of categories: large mammal (assumed to be cattle, horse or large cervid), medium-sized mammal (assumed to be caprovid, pig or small cervid), bird, fish, small mammal and totally unidentifiable.

## 11.4 **Results**

The samples are considered in order of sitecode and then by context. Where more than one sample number is given, the number in bold indicates the sample that was processed. Table 1 gives a list of the samples from the various sites that were selected for evaluation.

#### 11.4.1 Trench 15 (YORYM:2000.2)

**Context 15032** [dump deposit for the purpose of raising and levelling the ground surface]  
Sample 34 and 35

Moist, mid grey-brown, firm/brittle to crumbly (working soft and slightly plastic), slightly sandy, clay silt to silty clay. Very small and small (2 - 20mm) stones, ?rotted mortar, and charred grain were present.

There was a very small washover of about 150 cm<sup>3</sup> of charcoal with moderate numbers of elder (*Sambucus nigra* L.) seeds, some snails, a few other seeds, and some fine (<2 mm) fragments of wood (this last very decayed, and perhaps from sawdust). The moderate-sized residue of about 2.4 litres was of sand with traces of bone and brick/tile. A few fragments of land snail were recovered from this sample including poorly preserved remains of three individuals of ?*Trichia* sp.

#### 11.4.2 Trench 16 (YORYM:2000.3)

**Context 16025** [backfill of a post-medieval brick built culvert]  
Sample 6

This deposit consisted of a mixture of thin sandwich-like layers of fine black sooty material, which may well have been largely soot or ash, and paler grey-brown silty material which was rather calcareous and which appeared to have fine (sub-millimetre) banding within it. The small residue from this sample consisted of barely 100 cm<sup>3</sup> of cinders and coal with traces of sand-grade brick/tile but no quartz sand.

#### 11.4.3 Trench 19 (YORYM:2000.5)

**Context 19056** [build-up of horticultural type soil - 13thC]  
Sample 1 and 2

Moist, mid to dark grey-brown, firm to crumbly (working soft and slightly sticky), clay silt, with very small and small (2-20mm) stones, ?brick/tile and charcoal.

There was a moderate-sized residue of about 3.5 litres of sand and brick/tile with some bone and gravel; the very small washover consisted of a few cm<sup>3</sup> of charcoal and coal within which were a very few charred and uncharred seeds which included two charred flax (*Linum usitatissimum* L.) seeds.

The vertebrate remains were rather poorly preserved and fairly fragmented. Mostly the fragments represented large and medium-sized mammals but a small fish assemblage was also recovered. Although most fragments were unidentified, herring (*Clupea harengus* L.) and gadid vertebrae were noted. Remains of vole (*Microtus* sp.) and shrew (*Sorex* sp.) were also identified.

#### 11.4.4 Trench 20 (YORYM:2000.6)

**Context 20018** [primary fill of pit - 15th C]

Sample 4 + 5

Waterlogged, dark grey to black, soft, gritty clay sand, with traces of ?wood, fish and marine mollusc shell (including oyster). Mammal bone was recorded as abundant.

The large residue of about 1100 cm<sup>3</sup> consisted of coal, sand and grit with moderate amounts of bone, cinders and decayed wood fragments with a little pottery and brick/tile. The washover, of about 200 cm<sup>3</sup> was of woody debris, mainly very decayed wood to 25 mm and perhaps containing a 'sawdust' component of very fine material. There were a few moderately well preserved uncharred plant and animal remains, of which only *Sphagnum imbricatum* Hornsch. ex Russ. leaves and animal hairs reached an abundance of 2 on the four-point scale used. The former seem most likely to have originated in raised bog peat (cf. Context 20051), the latter perhaps from working of skins or textiles.

The large flot was only examined in part for invertebrate remains. There were moderately large numbers of insects, although detailed analysis would be better carried out on remains from a larger subsample. Fly puparia were abundant, and beetles fairly well represented. 'House fauna' was present (e.g. more than one of each of *Tipnus unicolor* and *Xylodromus concinnus*), and there were some decomposers associated with at least moderately foul conditions (e.g. *Cercyon unipunctatus*, *C. ?haemorrhoidalis*, *Aphodius* sp.).

There was more than one *Trox scaber*, perhaps several, but their preservational condition was the same as for the remaining beetles, and there is no reason to suspect an association with tanning (as deduced by Hall and Kenward 2000 for certain other sites).

Cattle, caprovid, chicken and dog remains were all represented amongst the bones recovered from this sample. A small number of gadid and herring (*Clupea harengus* L.) vertebrae were present.

**Context 20051** [infill of wicker lining (Context 20059) of cut 20061]

Sample 14, 15 and 16

Moist, dark grey to black, crumbly and, crisp and granular ?ash, with medium-sized (20-60 mm) stones present. This deposit appeared to be mostly charcoal or cinder in a matrix of ?ash.

The moderate- to large-sized residue of about 800 cm<sup>3</sup> consisted mainly (all but about 150 cm<sup>3</sup>) of twigs and other plant detritus, especially in the <2 mm fractions; the rest was sand and grit. Amongst the plant material, there were rather large amounts of peat (in fragments up to 20 mm) and of wood (to 30 mm, but very decayed). It seems likely that more than one type of peat was present, with components from fen and bog peat both being observed. The former was probably the source of the bog-bean (*Menyanthes trifoliata* L.) seeds recorded, whilst the latter was no doubt the source of the various parts of cotton-grass (*Eriophorum vaginatum* L.) plants and the traces of *Sphagnum* leaves (some of which were *S. imbricatum*). Preservation of the seeds present was variable and they were at low concentrations; some were fresh looking, others (e.g. the bog-bean seeds) distinctly worn (consistent with reworking from peat). Most of the plant taxa were weeds of waste places and

cultivated land, though there was a single tentatively identified fuller's teasel (*Dipsacus sativus* (L.) Honckeney) fruit which may indicate textile working (remains of this plant have been recorded from time to time in deposits formed at the margins of the King's Pool in York).

The flot was mostly fine plant detritus, but among this were numerous invertebrate remains, mainly beetles. Preservation varied, although for most of the fossils it was rather poor; however, the condition of the remains posed no special difficulties in identification.

Much of the fauna would have been at home in decaying material with the characteristics of stable manure: moist, foul, but fairly open-textured. The possibility that stable manure as such was present was suggested by the combination of (a) modest numbers of typical decomposers of such material (including *Monotoma* spp., *Anthicus* ?*formicarius*, *Cercyon atricapillus*, *Lithocharis ochraceus* and *Carpelimus fuliginosus*), (b) small numbers of 'hay' taxa (*Sitona* sp., *Apion* spp., some soft), (c) grain pests (*Sitophilus granarius*, *Oryzaephilus* ?*surinamensis*), and (d) 'house fauna' (e.g. *Anobium punctatum*, *Xylodromus concinnus*, *Tenebrio obscurus*, *Lathridius minutus* group, *Tipnus unicolor*). The presence of these ecological groups was regarded by Kenward and Hall (1997) as very typical of stable manure. To them may be added some aquatics (e.g. *Hydrobius fuscipes*, *Lophopus crystallinus*), since evidence is growing that aquatic insects and other invertebrates such as Cladocera and Bryozoa very commonly entered archaeological deposits via the faeces of livestock, having been accidentally ingested (they also seemed to have arrived in water used for various purposes).

Analysis of a larger subsample of this deposit would undoubtedly clarify interpretation.

**Context 20070** [one of a series of dumps excavated in spits built up between 10th and 13/14th C]  
Sample 17

Moist, mid to dark grey-brown, brittle to crumbly (working soft and slightly sticky), clay silt. Small (6-20mm) stones and ?charcoal were present.

There was a moderate-sized residue of about 700 cm<sup>3</sup> of which about 150 cm<sup>3</sup> comprised large bone fragments and 50 cm<sup>3</sup> a single cobble; the rest was mainly sand and gravel. The small washover consisted of a few cm<sup>3</sup> of charcoal with moderate numbers of elder and henbane (*Hyoscyamus niger* L.) seeds and traces of several other probable weeds. There was a very small flot with more elder seeds and some very decayed *Cristatella* statoblasts. No other invertebrates were present.

**Context 20073** [one of a series of dumps excavated in spits built up between 10th and 13/14th C]  
Sample 18 + 19

Moist, dark grey, crumbly (working plastic and slightly sticky), sandy, clay silt, with very rotted marine mollusc shell. It is possible that the dark colour of this deposit was because of the inclusion of fine charcoal rather than because of a humic content.

The small residue was about 250 cm<sup>3</sup> of sand and gravel with some bone and pottery. The washover consisted of about 100 cm<sup>3</sup> of charcoal with many cereal grains (almost all oats, *Avena* sp(p)., and barley, *Hordeum* sp(p).), some only partly charred. There were also a few charred and uncharred seeds of weeds (including wild oats, *Avena fatua* L.) and at least one charred flax seed. There were

only traces of (badly decayed) invertebrate cuticle.

Forty-two fragments of rather battered bone were recovered from the residue. Most fragments (37) were unidentified to species, but were assigned to the large and medium-sized mammal categories. A single cat metapodial and a cow third phalange were noted, along with herring (*Clupea harengus* L.), eel (*Anguilla anguilla* (L.) and Pleuronectidae vertebrae.

**Context 20079** [one of a series of dumps excavated in spits built up between 10th and 13/14th C]  
Sample 24 + 25

Moist, mid to dark grey, soft (working plastic), humic, silty, clay sand. Charcoal, wood fragments and vertebrate remains were present.

There was a small residue of about 250 cm<sup>3</sup> of which about 50 cm<sup>3</sup> was organic detritus in the washover (which proved to be mainly woody root fragments, perhaps of recent or at any rate post-depositional origin), the rest rather clean sand and gravel and a large (50 cm<sup>3</sup>) fragment of bone. There were three charred cereal grains identified as oat, barley and ?wheat (cf. *Triticum* sp.). The small flot consisted mostly of rootlet fragments and included no more than a trace of decayed invertebrate cuticle.

**Context 20080** [pit fill - 10th C]  
Sample 26 + 27

Moist, mid to dark grey-brown, crumbly (working soft), slightly sandy, clay silt, with small (6-20mm) and large (>60mm) sized stones and charcoal.

Of the moderate- to large-sized residue of about 850 cm<sup>3</sup>, all but about 300 cm<sup>3</sup> was material which formed a washover of organic detritus; the rest was sand and gravel. The organic detritus mainly consisted of root fragments which were probably post-depositional, perhaps even recent in origin, and some charcoal. Seeds in the washover and flot were sparse but mostly quite well-preserved; they included some woody types likely to survive where less robust propagules had been lost to decay.

No invertebrate remains were observed in the flot from either subsample.

The very few bone fragments recovered were rather small and battered in appearance.

**Context 20094** [?river deposit or ?bank deposit or ?dumps into marsh - 2nd/3rd C]  
Sample 51 + 52

Moist, mid blue-ish grey oxidising to slightly orange grey-brown, soft (working plastic and somewhat thixotropic), very sandy clay to clay sand. Fragments of charcoal and coal were present.

The very small residue of about 500 cm<sup>3</sup> was of sand and gravel with traces of brick/tile, pottery and bone; there was a very small washover of a few cm<sup>3</sup> of charcoal (to 10 mm).

**Context 20097** [fill of cut - 2nd/3rd C. ?waterlain or ? dumped deposit]  
Sample 61 + 62

Moist, mid grey oxidising to slightly orange grey-brown, stiff (working plastic), very sandy clay, with flecks of charcoal.

The very small residue of about 450 cm<sup>3</sup> consisted of sand and gravel (to small cobble size, 100 mm); a small washover of a few cm<sup>3</sup> of charcoal (to 10 mm) provided the only ancient plant remains (there were also some root fragments which may have been post-dated the formation of the deposit).

**Context 20099** [?river deposit or ?bank deposit or ?dump into marsh - 2nd/3rd C]  
Sample 64 + 65 (not processed)

Moist, light to mid orange-brown to mid grey, thixotropic (working soft and plastic), clay sand.

This deposit was not processed as inspection in the laboratory strongly suggested that it was a 'natural' river deposit.

**Context 20100** [?river deposit or ?bank deposit or ?dump into marsh - 2nd/3rd C]  
Sample 66 (not processed)

Waterlogged, lumps of mid grey-brown sandy, slightly stony clay in a matrix of mid slightly orange grey-brown, silty sand. Description of the sediment was hampered by the waterlogged condition of the sample.

This deposit was almost certainly a 'natural' river deposit and, therefore, no further analysis was undertaken.

#### 11.4.5 Trench 24 (YORYM:2000.7)

**Context 24008** [dump within backyard - 11-12thC]  
Sample 67

Moist, mid to dark grey-brown, crumbly (working slightly sticky), sandy, silty clay to sandy clay silt (locally slightly more clay). Medium-sized (20-60 mm) stones, white flecks and vertebrate remains were present. A possible ash component was also noted.

This sample yielded a small residue of about 400 cm<sup>3</sup> of which most was sand and stones with traces of brick/tile, bone, oyster shell and pottery. The small washover contained a few roots and some (rather rounded) charcoal to 10 mm. The only identifiable remains were seeds of elder and charred nutlets of bog-rush, *Schoenus nigricans* L. (see further under Context 11035, below). Most of the vertebrate remains were unidentified. All were small and <5 cm in dimension. Two burnt fragments were noted. The small flot yielded further rootlets. There were traces of well decayed arthropod cuticle, among which only a single fragment of *Trox scaber* could be recognised.

**Context 24025**

Sample 69 SPOT

A large lump of ?cinder (to about 150 mm) with some fragments of charred plant material in thin ribbons on one face; these seem most likely to be bark of some kind, presumably young bark of hazel, silver birch or cherry, all of which can produce thin peeling strips.

**Context 24051** [dump or accumulation of tanning and shoe-making waste - 15thC]

Sample 71

Just moist, mid grey-brown, crumbly, slightly clay silt. Small (6-20mm) stones, ?rotted charcoal, bone and very rotted marine mollusc shell were present, whilst brick/tile was recorded as common (i.e. forming 1-10% of the residue).

There was a moderate-sized residue of about 700 cm<sup>3</sup> of charcoal, cinder, coal and bone with some concretions (which were worn and perhaps reworked). Seeds in the washover from this and from the small flot were few and mainly very decayed uncharred propagules from arable weeds. Also present were traces of fig (*Ficus carica* L.) seeds and several cereals (oats, barley and bread/club wheat, *Triticum 'aestivo-compactum'*, all being noted). The assemblage overall seemed typical of urban occupation deposits where there had been a low input of plant material and/or rather strong decay at or since burial.

**Context 24057** [dump or accumulation of tanning and shoe-making waste - 14/15th]

Sample 71

Moist, black, crumbly (working slightly plastic), charcoal rich, sandy silt. Large (>60 mm) stones, brick/tile, twigs and vertebrate remains were present.

The large residue was about 1.1 litres, of which about 600 cm<sup>3</sup> formed a washover of granular wood fragments and twigs with rather a lot of very decayed leather (including one large - up to 100 mm - fragment), and some coal, charcoal and cinder. The remainder was mainly brick/tile (to 40 mm) and sand.

There were some very well preserved plant remains including some nearly whole ash (*Fraxinus excelsior* L.) fruits (keys, minus their seeds); indeed, there was a distinct component of woody plants including two bullace (*Prunus domestica* ssp. *insititia* (L.) C. K. Schneider) fruitstones and one sloe (*P. spinosa* L.) stone, all holed by small mammals. Other remains included taxa representing a diversity of likely components. Thus there were probable food plants, such as hazel (*Corylus avellana*) nutshell, fig seeds, apple (*Malus sylvestris* Miller) 'core', and wheat/rye (*Triticum/Secale*) 'bran' (of which more was present in the flot). Grassland plants (perhaps from hay) and cornfield weeds (perhaps from straw) were also present in small numbers, as were peatland taxa (notably cotton-grass and bog-bean), presumably from reworked peat. Preservation was mostly rather good and overall the assemblage suggested a possible origin in stable manure but with some taxa probably from local weedy stands of vegetation (e.g. burdock, *Arctium*, and scotch thistle, *Onopordum acanthium* L.).

The flot (of which half was examined) contained numerous insects, identifiable but not very well preserved. House fauna was well represented by several *Lathridius minutus* group and *Tipnus unicolor*, more than one *Ptinus ?fur*, and single individuals of some others. Grain pests were present (*S. granarius* and *O. ?surinamensis*). Foully decaying matter was suggested by *Gyrophynus* sp., *Platystethus arenarius*, several *Cercyon analis*, *Oxytelus sculptus*, *Monotoma* sp., *Omalius ?rivulare* and at least three *Aphodius* species. *Sitona* sp. and *Apion* sp?p. (one freshly emerged) perhaps hint at hay, so the whole assemblage may be derived from stable manure.

A larger subsample would yield a clearly interpretable group of insect remains.

Forty-six fragments of bone, all of which were extremely well-preserved, were recovered from this sample. Most of the fragments were the remains of fish, including, herring (*Clupea harengus* L.) and Pleuronectidae. Chicken and goose bones were also noted.

#### 11.4.6 Trench 8 (YORYM:2000.8)

**Context 8066** [backfill of Roman pit]  
Sample 58

Moist, mid slightly orange grey-brown, sticky (working soft and somewhat plastic), silty clay to clay silt, with very small (2-6mm) stones and mammal bone.

There was a very small residue of about 350 cm<sup>3</sup> and a small washover of a few cm<sup>3</sup> of charcoal to 5 mm (and single charred barley and unidentified cereal grains); the residue was mostly sand and concreted silt with some bone and brick/tile.

#### 11.4.7 Trench 11 (YORYM:2000.10)

**Context 11028** [occupation deposit - 11/12th C]  
Sample 4

Moist, mid to dark grey-brown, crumbly (locally plastic), sandy silt to silty sand, with small clay lumps. Vertebrate remains were present. This deposit was possibly rich in ash.

There was a small residue of about 550 cm<sup>3</sup> of which about 150 cm<sup>3</sup> was a washover of rather angular and fresh-looking charcoal (to 20 mm, and including material of oak and ash) and some bone and oyster shell; the rest was sand with traces of brick/tile, burnt bone and fish bone. There was a single charred ?barley grain. Vertebrate remains recovered from this deposit were well-preserved, but quite fragmented. Of the 45 fragments recorded only 13 could be identified. These included pig, chicken and fish (herring and Pleuronectidae) remains. The tiny flot contained further charcoal and traces of well-decayed ?arthropod cuticle.

**Context 11035** [occupation deposit - 10th C]  
Sample 47

Moist, mix of light yellow to mid grey-brown, brittle (working crumbly) ?ash, with burnt soil and ?fine charcoal present.

The moderate-sized residue of about 700 cm<sup>3</sup> consisted of baked clay/daub with some gravel and sand and bone fragments (mostly burnt black or white). There was a small washover (perhaps 50 cm<sup>3</sup>) of charcoal and a small flot. Notable in the washover and flot were moderate numbers of charred and uncharred nutlets of bog-rush (*Schoenus nigricans*); this plant has been used as thatching material in the past and it is difficult to see how else it might have arrived here unless used in this way or perhaps as floor litter. Other identifiable plant remains were mostly charred and included elder, bog-bean and a few weed taxa. All of the 17 bone fragments recovered from the residue were burnt and rather brittle, and none were identified to species. No invertebrate remains were observed.

#### 11.4.8 Trench 12 (YORYM:2000.12)

**Context 12013** [dump deposit - 13-16th C]

Sample 53

Moist, mid to dark grey-brown, crumbly, silty sand to sandy silt. Fragments of mortar/plaster, brick/tile, charcoal, bone and pieces of very rotted marine mollusc shell were present. Roots, possibly of modern origin were also noted.

There was a large residue of about 3 litres of sand, coal and considerable amounts of bone, much of it from fish. The latter included the remains of herring (*Clupea harengus* L.), eel (*Anguilla anguilla* (L.)), cod (*Gadus morhua* L.), ling (*Molva molva* (L.) and other Gadidae. Also recorded were cinders and brick/tile. The washover was mostly coal or 'char' derived from it, with a single uncharred fig seed and a single charred bread/club wheat grain.

#### 11.5 Hand-collected shell

Hand-collected shell was recovered from eighty-two contexts (from twelve trenches). Preservation was variable (ranging from very poor to very good) but predominantly poor (average erosion and fragmentation scores were 2.45 and 2.42, respectively, of a possible 'worst' value of 3.0). All of the material was assessed and the taxa identified as closely as possible.

Tables 2 and 3 show the total numbers of contexts assessed by trench and period respectively. Table 4 gives the total number of fragments (not counting mm-size flakes of shell) recorded by taxon and period.

The mollusca from almost all of the contexts included oyster shell. Summary information (by period) for this material is presented in Table 5.

Most of the recovered shell was of edible shellfish from deposits of medieval and post-medieval date. Oyster was, by far, the most commonly represented taxon with mussel (*Mytilus edulis* L. Occasionally present in moderate numbers: Contexts 20005 and 20003, post-medieval and medieval deposits within trench 20), cockle (*Cerastoderma edule* (L.)), and occasional common whelk (*Buccinum undatum* (L.)) remains also present in small numbers. All are edible species commonly occurring off the east coast of Britain.

Oyster shell was, on the whole, fairly poorly-preserved much of the shell being soft and flaky.

Approximately 78% of the valves could be identified as either left or right valves but, of the valves for which 'side' could be determined, only 19% were measurable (though measurements were not taken as part of this evaluation). Evidence of the oysters having been opened using a knife or similar implement (as shown by 'V' or 'W' -shaped notches on the shell margins) was noted on 39-48% of the valves. There was very little evidence of damage to the valves (e.g. polychaet worm burrows, dog whelk holes) or encrustation (e.g. by barnacles) by other marine biota. In a few cases, pairs of valves from different individuals had become fused, perhaps indicating a cramped or over-crowded growing environment.

The recovered land snails were all *Helix* sp. (probably *Helix aspersa* Müller, the 'garden snail', a highly eurytopic species of no value in interpreting ecological conditions on the site, beyond indicating the availability of at least modest amounts of calcium carbonate, possibly provided by the decomposing shellfish remains).

## 11.6 Vertebrate remains

Vertebrate material was recovered from a total of 12 trenches and amounted to 44 boxes. Table 6 shows the amount of material recovered from each trench by general period, whilst Table 7 shows the number of fragments, measurable bones and mandibles with teeth *in situ* recorded during the evaluation. Where possible, material for recording or scanning was selected to represent the various time periods covered by the deposits from each trench.

### 11.6.1 Trench 15 (YORYM:2000.2)

Deposits within this trench produced 6 boxes of vertebrate remains. Approximately two thirds (4 boxes) of the assemblage represented just 3 contexts (15015, 15017 and 15019) of post-medieval date (mainly 16-18th century). A very small assemblage of late medieval date (14-15th century) was also recovered.

Preservation of most of the material was described as 'good' or 'excellent', although the largest groups of bones, those from contexts 15015 and 15017 in particular, had a slightly battered appearance. Additionally, bones from contexts 15016 and 15032 were rather poorly preserved, material from the latter having a mixed appearance and including some very eroded fragments. Human bones were identified from a number of contexts (15015, 15014, 15030 and 15032) which also suggests the possible presence of redeposited material.

Butchered fragments were fairly frequently observed within the post-medieval assemblages. Evidence of butchery took the form of split cattle shaft fragments, chopped vertebrae (both longitudinally and transversely) and, from context 15019, a sheep skull which had been chopped in half. Single horncores, chopped from the rest of the skull, were noted from contexts 15019 and 15022).

The range of species present was similar throughout the assemblage and included the usual domesticates, i.e. cattle, caprovids, pigs, chickens and geese. Some juvenile individuals were present amongst the cattle remains, a characteristic of post-medieval assemblages. Bones representing large cattle and pigs were also recorded in the assemblage. Large animals of post-medieval date may indicate the presence of 'improved' varieties of livestock.

Wild birds were represented by a single lapwing (*Vanellus vanellus* (L.)) humerus from Context 15019, whilst fallow deer (*Dama dama* (L.)) fragments were identified from Context 15022. Fish bones were also recovered, and included a conger eel (*Conger conger* (L.)) dentary, which, on the basis of comparison with modern reference material, probably represented an individual of over 1 m in length.

An initial examination of body part representation for the major domesticates from the post-medieval assemblage does not show any clear patterns. A range of elements, including meat-bearing and non-meat-bearing ones, is evident for all three of the main domesticates (cattle, caprovids and pigs). It is likely that the assemblages from these deposits represent waste from a range of activities. A full analysis of the bones would probably prove to be more illuminating.

#### 11.6.2 *Trench 16 (YORYM:2000.3)*

The very small assemblage from this trench amounted to three bags, representing material from three contexts. These deposits were modern (18-20th C) in date. No further analysis of this material was undertaken

#### 11.6.3 *Trench 19 (YORYM:2000.5)*

A total of 16 animal bone fragments were recovered from this trench. This material represented four deposits interpreted by the excavator as possible horticultural soils. Numbers of fragments are insufficient to provide any useful information.

#### 11.6.4 *Trench 20 (YORYM:2000.6)*

This trench produced the largest assemblage of bone, amounting to 12 boxes, representing 54 contexts. Approximately eight boxes of bones were recorded or scanned.

Bone was mainly recovered from late medieval/early post-medieval deposits (20005, 20008, 20013, 20016, 20018 and 20033 (14th)), whilst deposits of Anglo/Scandinavian to early medieval date (20073, 20077, 20078, 20079 and 20082) produced a smaller assemblage. Material from a series of Roman dumps was also assessed.

With the exception of the fragments recovered from the sequence of Roman deposits, the bones from this trench were reasonably well preserved, although it was noted that some of the larger groups had a slightly battered appearance and the occasional very rounded fragment. Colour of the fragments did vary from fawn to dark brown, but this was not apparent within contexts. A single human phalanx was identified from Context 20016, and this fragment may indicate the presence of reworked material. Very little bone was present in the deposits of Roman date and those fragments which were recovered were small, fragmented and rather poorly preserved.

Evidence of butchery, chopping in particular, was quite high throughout most of the periods represented. A recurring feature of the 14th to 15th century assemblages was the presence of both cattle and caprovid vertebrae which had been split longitudinally. This demonstrates the practise of splitting carcasses and is a feature quite commonly found in medieval assemblages. The earlier,

10th to 12th century material, particularly that from context 20073, was also fairly heavily butchered and included split cattle shaft fragments. Bones from this deposit were also more fragmented than the later assemblage and slightly less well-preserved.

Late medieval/early post-medieval activity within this trench is characterised by an episode of dumping and pit digging. The vertebrate assemblage recovered from these deposits showed a greater range of species than encountered in most of the other trenches. Besides the remains of cattle, caprovids, pig, chickens and geese, small quantities (mostly single fragments) of the remains of wild species were identified. These included fallow deer (*Dama dama* (L.)) from contexts 20002 and 20005, roe deer (*Capreolus capreolus* (L.)) from context 20016, crane (*Grus* sp.) from context 20008, Columbidae from context 20008, razorbill/guillemot (*Alca torda* L./*Uria aalge* (Pontoppidan)) from context 20016 and various wader fragments (Contexts 20008, 20016 and 20033). The remains of turbot (*Scophthalmus maximus* (L.)) and Gadidae were also identified.

A preliminary examination of the composition of the recorded assemblages suggested that a mixture of waste was represented. Fragments such as mandibles, cranium, metapodials and other non-meat bearing elements were noted, including a few horse bones (one metapodial sawn and chopped). However, a large proportion of the bones appeared to be kitchen/domestic refuse. Cattle fragments also included the remains of very young individuals, a characteristic normally associated with later, post-medieval assemblages. Their presence in these deposits, along with the diversity of the species represented may hint at high status occupation.

Dump deposits of 10th-13/14th century date produced an assemblage not that dissimilar to the later material. The range of species was fewer and more restricted to the major domesticates, although a roe deer (*Capreolus capreolus* (L.)) tibia fragment was identified from Context 20077. In the case of this assemblage, however, preliminary investigations suggested the presence of a larger component of primary butchery waste than noted for the later period.

As already mentioned, the Roman vertebrate remains were few in number and rather battered and eroded, with few identifiable fragments. Contexts 20095 and 20096 contained fragments of the same human humerus. The nature of the bones from these deposits suggests that most of this material had been redeposited.

#### 11.6.5 Trench 24 (YORYM:2000.7)

Ten boxes of bones were recovered from this trench. On the basis of spot dates provided by the pottery over half of the material is 10th -12th century in date, with a small group of bones of 14/15th century date also present. Preservation of the recorded material was mainly good. The 10th century assemblage from context 24061 (amounting to 3 boxes) was well-preserved on the whole, but had a slightly battered appearance and a small component of rounded fragments. However this material did not appear to have a mixed origin, but may have included redeposited material. Bones from context 24057 (14/15th century deposit), on the other hand, whilst reasonably well preserved, had clearly not all been dumped at the same time or come from the same place. Approximately 20% of the fragments were dark brown in colour and had very rounded edges. The rest of the assemblage was so well preserved that some fragments had an almost 'greasy' appearance and the edges of the bones were 'distinct'. These records suggest that quite a large component of this assemblage was almost certainly reworked material.

The small 14/15<sup>th</sup> century assemblage clearly included rubbish and waste from a number of different activities. Remains of cattle, caprovids and pig typically formed the largest proportion of the assemblage. A range of elements was represented for these species, which included meat-bearing and non-meat-bearing elements. The inclusion of kitchen waste in the assemblage is suggested by the remains of chickens and geese. The elements of these birds that were identified are those which would normally be removed before the bird was cooked. Also present were a few dog and cat bones. Traces of possible skinning marks were observed on two dog humeri from context 24057. Caprovid metapodials were also fairly numerous in the assemblage from this deposit. These remains may derive from the processing of animal skins.

Most of the bone from this trench was recovered from a series of dump deposits of 10/11th century date, with 3 boxes of material being recovered from context 24061. Evidence for butchery was extensive and included transversely chopped large mammal (assumed to be mainly cattle) shaft fragments, and heavily chopped (some longitudinally) cattle vertebrae and pelves. Two cattle mandibles had been burnt or scorched along the tooth row.

Another characteristic of the material from this period was the presence of small numbers of cattle, goat and sheep horncores. Most had been deliberately chopped from the main part of the skull. Metapodials, including those of goat, were also more prevalent in these deposits. Several slivers of antler were identified, providing clear evidence for antler working. These remains all suggest waste from craft activities, albeit on a fairly small scale.

Evidence for the presence of four-horned sheep was provided by a ram skull (context 24061) with two short anterior horncores and two smaller straight posterior cores. Although uncommon, multi-horned or polycerate skulls have been found at other urban archaeological sites, including St Saviourgate, York (Carrott *et al.* 1998b) and Flaxengate, Lincoln (O'Connor 1982). A genetically determined growth defect in the horn core is believed to cause this feature.

The remains of cattle were most common in this period, with caprovid bones also present in reasonable numbers. Fragments of other species were rather scarce but included pig, horse and dog. Birds were represented by chicken and geese.

A preliminary examination of the occurrence of different parts of the skeleton for cattle from context 24061 showed that more than half of the fragments represented non-meat bearing elements such as horncores, mandibles, isolated teeth and metapodials. However, meat-bearing elements radii, humeri and pelves were also fairly well represented. A number of different economic activities appear to have been responsible for the remains recovered from this deposit. One component seemed to be waste from craft processes such as antler working, hornworking and/or tanning, whilst the remainder of the material suggested refuse from slaughter, primary butchery and secondary carcass preparation.

#### *11.6.6 Trench 8 (YORYM:2000.8)*

Twenty-nine contexts from this trench produced three boxes of bone, of which one was recorded in detail. Most of the deposits from which any significant quantities of bone were recovered were dated by pottery to the 10th and 11th centuries. The vertebrate remains from these deposits

formed a small assemblage which showed similarities to the bones from Trench 24. Preservation was variable throughout the trench. Some of the assemblages were recorded as having 'good' preservation (e.g. those from Contexts 8017 and 8021), whilst others (e.g. 8015, 8022 and 8025) were much less well-preserved and contained bones which were battered in appearance, with flaky and eroded surfaces. Cattle remains and large mammal fragments predominated and showed evidence of systematic and extensive butchery. Only a few fragments of caprovid, pig, chicken and goose were recorded. A single gadid cleithrum was identified from Context 8021.

Few measurable fragments, or mandibles with teeth *in situ* were recovered.

#### 11.6.7 Trench 25 (YORYM:2000.9)

As with Trenches 16 and 19, very few vertebrate remains were recovered, in this case only 10 (148 g) fragments representing four contexts. This assemblage is too small to provide any useful information.

#### 11.6.8 Trench 11 (YORYM:2000.10)

A total of four boxes (representing 39 contexts) of bones was recovered from this trench. Deposits of Anglo/Scandinavian to medieval date were encountered but mostly the bone was retrieved from deposits of 10th century date. Over a quarter (1.5 boxes) of the material came from a single context (11055). Although much of the recorded material was very well preserved, the bones from 11055 were poorly preserved, had very battered and eroded surfaces and were also mottled black/brown in colour. As a consequence of the poor preservation, measurable fragments from context 11055 were few in number.

The recorded assemblage included cattle, caprovid and pig remains, with a few horse, chicken and goose fragments.

#### 11.6.9 Trench 33 (YORYM:2000.11)

Only three contexts from Trench 33 produced bone, a total of 12 (107 g) fragments. These deposits were almost certainly late medieval to post-medieval in date. Little information can be obtained from such a small assemblage.

#### 11.6.10 Trench 12 (YORYM:2000.12)

The vertebrate assemblage recovered from this trench amounted to four boxes (each box approximately 20 litres), representing 23 contexts. Most of the deposits from which bone was produced were either dumps or pitfills dating to the 10th -16th centuries. The pottery suggests that some of these deposits are more broadly dated than others or include redeposited or reworked material. This can be seen from the preservation of the bone. Of the material recorded, the largest concentrations (from contexts 12007, 12012, 12013 and 12015) and least well-dated assemblages were recorded as containing a mixture of well-preserved and more poorly preserved fragments. Some of these bones were also battered in appearance, whilst others had eroded and flaky surfaces. Conversely, the more tightly dated material (from contexts 12008 and 12021) tended, on the whole, to be better preserved.

A quite diverse range of species were identified from the deposits in this trench. The usual domestic mammals such as cattle, caprovid and pig made up the bulk of the assemblages. However, bones of cats and dogs, including single elements and part skeletons were noted from a number of the deposits (12008, 12011, 12012, 12013, 12015 and 12021). These remains could be waste from the activities of a furrier or a tanner, but no skinning or butchery marks were observed on any of the bones. It seems more likely that this area may have been a convenient place for dumping dead pets or strays.

Birds were represented by goose, chicken, duck and single fragments of red kite (*Milvus milvus* (L.) from context 12015 and ?jack snipe (cf. *Lymnocryptes minimus*) from context 12013. Fish bones were also present and included turbot (*Scophthalmus maximus* (L.)), haddock (*Melanogrammus aeglefinus* (L.)), Gadidae and Rajidae, with herring and eel being recorded from Sample 53 (context 12013). The remains of fallow deer (contexts 12013, 12015), hare and rabbit (both from context 12013) were also identified.

These deposits produced a varied assemblage which obviously included much domestic/kitchen refuse. Some butchery waste is indicated though by the presence of the non-meat bearing elements of cattle, caprovids and pigs.

#### 11.6.11 Trench 13 (YORYM:2000.13)

Three boxes of bones were recovered from this trench. Dating provided by the pottery indicates that the material was rather mixed. Overall, the preservation was recorded as good to fair, but some contexts contained battered and rounded fragments.

Material from ten deposits was scanned. Most contained human remains with varying proportions of animal bones. Much of the human material was almost certainly fragments from burials which had been disturbed during later grave digging.

#### 11.6.12 Trench 14 (YORYM:2000.14)

Only a single box of bone, representing material from eight contexts, was recovered from Trench 14. Pottery spot dates suggest that these deposits were mainly post-medieval, and the broad scale of these dates indicates that some reworking of deposits has taken place.

Human remains were identified throughout the assemblage, which must surely represent residual/redeposited material from the earlier medieval graves. Material from this trench shows no potential for further analysis.

## 11.7 Discussion and statement of potential

### 11.7.1 Plant and invertebrate remains (other than shell)

Some of the deposits in trenches 20 and 24 contain abundant biological remains preserved by anoxic waterlogging, and this material has substantial potential for useful analysis providing its archaeological context is fully understood. Even if the context is not wholly elucidated, the

remains would be of use in wider synthesis providing dating is secure; the records of grain pests and of *Tipnus unicolor* are of particular value in this respect since both changed their abundance substantially in the past.

Where there was suitable preservation, the suites of invertebrate remains recovered appeared at the level of analysis possible in evaluation to indicate the presence of stable manure. Plant remains indicated a variety of materials of which some may have been litter consistent with the presence of stable manure, though lacking the component of grassland plants which is usual in such assemblages.

Several deposits contained very small quantities of charred plant material other than charcoal, but with the possible exception of the sample with moderate amounts of charred and uncharred nutlets of bog-rush, they are not interpretatively informative from an archaeobotanical point of view.

#### 11.7.2 *Shell*

Only small assemblages of remains were recovered from individual deposits. When considered by trench, only Trench 20 (2000.6) gave a modest-sized shell assemblage.

The almost complete bias of the recovered shell towards edible taxa, together with the percentage of oyster shells showing evidence of having been opened using tools, strongly suggests that these assemblages derive almost exclusively from human food waste.

From current evidence, the oysters could only have been imported to the site from the Kent, Essex or Suffolk coasts or the Firth of Clyde (Winder 1992 and pers. comm.). However, Kenward (1998) has speculated that exploitation of more local (but as yet unlocated) oyster beds may well have been more widespread along the east coast of England.

The fusion of the valves of some of the recovered oyster shell was, perhaps, indicative of over-crowding in the bed(s) and the lack of epibionts may suggest a relatively poor growing environment.

It seems likely that all of the remains of other edible marine taxa were also derived from human food, all of these taxa are common off the coast of north eastern Britain today.

The land snail remains were of no interpretative value.

#### 11.7.3 *Vertebrate remains*

Excavations at Hungate have enabled us to explore an area of York from which little archaeological information was previously known. Useful bodies of vertebrate material, dated to a range of periods, have been recovered from most of the excavated trenches and show some potential for providing important zooarchaeological and archaeological information.

The very small assemblages dated to the Roman period from Trenches 11, 20 and 24 show little or no potential for further analysis. Further excavation may produce more substantial assemblages of

this date, but on the basis of the current material, this seems unlikely.

The vertebrate remains from deposits of 10th -12th century date in Trench 24 clearly hold much important evidence for reconstructing aspects of human activity. Preservation is good, with little indication of residual or redeposited material. The bulk of the material appears to be refuse from a range of different activities, including craft working and carcass preparation, with little domestic food waste present. Similarly dated assemblages were recorded from nearby Trenches 11 and 20.

A number of recent excavations within the city, specifically at Davygate (Carrott *et al.* 1998a) and St Saviourgate (Carrott *et al.* 1998b) have also produced early medieval assemblages. A synthesis of these data (combined with analyses of the datasets from Hungate) would provide a wider understanding of the activities being undertaken in different areas of the city.

Aspects of the vertebrate assemblage from Trench 20 also show some potential for interpreting 14/15th century deposits, possibly associated with the Carmelite Friary. A large proportion of the assemblage clearly represents domestic/kitchen refuse, although a component of butchery waste is also present. Longitudinally chopped cattle vertebrae may indicate that the Friary was being provisioned with sides of beef and that the small quantities of butchery waste may represent small scale carcass preparation undertaken by the friars themselves. This and the presence of juvenile cattle remains, more commonly associated with later post-medieval deposits, may suggest that the friary was being supplied from outside the city. Similar remains were recovered from deposits of the same period at the Bedern, York (Bond and O'Connor 1999) and here it was suggested that the Vicar's college was obtaining beef from specialist dairy herds, a source not available to other inhabitants of the city.

The range of wild mammal, bird and fish remains from the same assemblages hint at an association with high status or ecclesiastical establishments. Remains of deer and crane indicate access to wild resources, which may also suggest individuals of high status. Venison was a prized commodity in the medieval period and was usually only available to people either through hunting in their own parks or through gifts provided by patronage (Neave 1991).

The presence of the guillemot/razorbill fragment is unusual, but remains of these birds have been found in medieval deposits elsewhere in York (O'Connor 1988; 1989). Bond and O'Connor (1999) have postulated that auks may have been seen locally as an acceptable substitute for fish for eaten on Fridays and fast days, again perhaps associated with an ecclesiastical diet.

Vertebrate remains from medieval dump and pitfill deposits in Trench 12 show a similar diverse range of species. Fish remains from sample 53 (12013) were numerous, showing the potential of these deposits for the preservation of more fragile remains. Unfortunately, the largest accumulations of material appear to be too broadly dated to provide useful interpretation. These assemblages would have more potential if a tighter dating framework could be achieved.

A small and mostly late medieval/post-medieval assemblage was recovered from Trench 15. Overall, preservation was good, although a few human fragments suggest that a small component of reworked material may be present.

This late medieval/post-medieval assemblage would provide a small but inherently useful dataset

for archaeological interpretation. This transitional period has been identified by English Heritage (1991) as a research priority. The investigation of assemblages of this and later periods has been, until recently, largely neglected, leaving a gap in our knowledge at an important period of agricultural intensification. Changes in height and body confirmation and hence the evidence of early stock improvement may be identified through the use of biometrical data from these vertebrate remains. Another possible indicator of the so called 'agricultural revolution' is the increase in the number of juvenile cattle remains in assemblages of this period (Albarella and Davis 1996; Dobney *et al.* 1996), a feature also observed in the assemblage from Trench 15. This increase in the culling of younger animals has been interpreted as evidence of dairying, with the consequent surplus of calves for veal.

The bones recovered from these sites will, therefore, contribute to a broader archaeological research framework, which includes aspects of craft and industry, wealth and socio-economic status, provisioning and access to resources and the intensification of agriculture - information still lacking for large areas of the city.

## **11.8 Recommendations**

Most of the samples yielded insufficient plant remains to warrant further study on them and it seems unlikely that many of the samples not selected for this evaluation would be archaeobotanically productive and archaeologically informative. The assemblages containing peat or peatland taxa from contexts 20018, 20051 and 24057 might be worth examining in more detail to provide more information about the way the deposits formed or the nature of material from occupation nearby which contributed to them.

The invertebrate remains from certain of the samples from this evaluation exercise should be recorded in detail for future synthesis.

An archive of measurements of those oyster valves (for which this is possible) from well-dated contexts should perhaps be made (for comparative purposes), although the data would not add to the interpretation of this site.

No further work is recommended on the marine taxa other than oyster. No further work is recommended on the land snails.

It is recommended that further detailed analysis of vertebrate remains from all well-dated deposits be undertaken. Particular attention should be paid to recording skeletal element distribution, biometrical and age-at-death data.

If further excavation should take place, some areas within the development, particularly around Trenches 12, 15, 20 and 24, are likely to produce large assemblages of well preserved vertebrate remains.

Deposits should not be destroyed by development without archaeological excavation, appropriate sampling, and provision for post-excavation analysis and publication.

## 11.9 Storage requirements

The remaining sediment, residues, flots and extracted invertebrate remains and bone should all be preserved for the present to permit further study.

## 11.10 Archive

All material is currently stored in the Environmental Archaeology Unit, University of York, along with paper and electronic records pertaining to the work described here.

*Table 1. List of samples examined for evaluation for Hungate, York.*

| Site code | Context | Sample | Context type (pottery spot dates in parentheses)   | Subsamples examined                                 |
|-----------|---------|--------|--|---|
| 2000.2    | 15032   | 35     | dump deposit for the purpose of raising and levelling the ground surface (10th-14thC)            | BS: 17.33kg sieved to 300 µm                        |
| 2000.3    | 16025   | 6      | backfill of a post-medieval brick built culvert  | SPOT: 1 kg  |
| 2000.5    | 19056   | 2      | build-up of horticultural type soil (13th C)   | BS: 24.8 kg sieved to 300 µm and washover to 300 µm |
| 2000.6    | 20018   | 4      | primary fill of pit (15thC)  | GBA: 3 kg sieved to 300 µm, with paraffin flotation |
| 2000.6    | 20051   | 16     | infill of wicker lining (Context 20059) of cut 20061 (14thC)                                     | GBA: 3 kg sieved to 300 µm, with paraffin flotation |
| 2000.6    | 20070   | 17     | one of a series of dumps excavated in spits built up between 10th and 13/14th C (R; 10-13/14thC) | GBA: 3 kg sieved to 300 µm, with paraffin flotation |
| 2000.6    | 20073   | 19     | one of a series of dumps excavated in spits built up between 10th and 13/14th C (10-12/13th C)   | GBA: 3 kg sieved to 300 µm and washover to 300 µm   |
| 2000.6    | 20079   | 25     | one of a series of dumps excavated in spits built up between 10th and 13/14th C (R; 10th C)      | GBA: 3 kg sieved to 300 µm, with paraffin flotation |
| 2000.6    | 20080   | 26     | pit fill (10th C)  | GBA: 3 kg sieved to 300 µm, with paraffin flotation |
| 2000.6    | 20094   | 52     | ?river deposit or ?bank deposit or ?dumps into marsh (2nd C)                                     | BS: 16 kg sieved to 300 µm and washover to 300 µm   |

|         |        |           |   |   |
|---------|--------|-----------|---|---|
| 2000.6  | 20097  | 62        | fill of cut (2nd/3rd C)   | BS: 12 kg sieved to 300 µm and washover to 300 µm   |
| 2000.6  | 20099  | 64 and 65 | ?river deposit or ?bank deposit or ?dumps into marsh (2nd/3rd C)              | examined in laboratory; not processed               |
| 2000.6  | 20100  | 66        | ?natural  | examined in laboratory; not processed               |
| 2000.7  | 24008  | 67        | dump within backyard (10/11 <sup>th</sup> C)                                  | GBA: 3 kg sieved to 300 µm, with paraffin flotation |
| 2000.7  | 240027 | 69        |   | SPOT:   |
| 2000.7  | 24051  | 71        | dump or accumulation of tanning and shoe-making waste (15 <sup>th</sup> C)    | GBA: 3 kg sieved to 300 µm, with paraffin flotation |
| 2000.7  | 24057  | 72        | dump or accumulation of tanning and shoe-making waste (14/15 <sup>th</sup> C) | GBA: 3 kg sieved to 300 µm, with paraffin flotation |
| 2000.8  | 8066   | 58        | backfill of pit (Roman)   | BS: 7.4 kg sieved to 300 µm and washover to 300 µm  |
| 2000.10 | 11028  | 4         | occupation deposit (11/12 <sup>th</sup> C)                                    | GBA: 3 kg sieved to 300 µm, with paraffin flotation |
| 2000.10 | 11035  | 47        | occupation deposit (10 <sup>th</sup> C)                                       | GBA: 3 kg sieved to 300 µm, with paraffin flotation |
| 2000.12 | 12013  | 53        | dumpdeposit (13-16 <sup>th</sup> C)   | BS: 8.8 kg sieved to 300 µm and washover to 500 µm  |

Table 2. Numbers of contexts containing hand-collected shell by trench for Hungate, York.

| <b>Trench number</b> | <b>Trench code</b> | <b>No. of contexts</b> |
|----------------------|--------------------|------------------------|
| 11                   | 2000.10            | 9                      |
| 33                   | 2000.11            | 2                      |
| 12                   | 2000.12            | 5                      |
| 13                   | 2000.13            | 4                      |
| 14                   | 2000.14            | 1                      |
| 15                   | 2000.2             | 11                     |
| 16                   | 2000.3             | 2                      |
| 18                   | 2000.4             | 1                      |
| 19                   | 2000.5             | 2                      |
| 20                   | 2000.6             | 29                     |
| 24                   | 2000.7             | 12                     |
| 8                    | 2000.8             | 5                      |

Table 3. Numbers of contexts containing hand-collected shell by period for Hungate, York.

| <b>Period</b> | <b>No. of contexts</b> |
|---------------|------------------------|
| not dated     | 13                     |
| medieval      | 44                     |
| post-medieval | 18                     |
| early modern  | 5                      |
| modern        | 3                      |

Table 4. Hand-collected shell counts by period for Hungate, York. Counts for bivalve taxa are minimum numbers of whole valves. Counts for other taxa are minimum numbers of individuals.

| Taxon                                       | Period      |            |                  |                  |          | Total      |
|---|-------------|------------|------------------|------------------|----------|------------|
|   | n o t dated | medieval   | p o s t medieval | e a r l y modern | modern   |            |
| Whelk<br>( <i>Buccinum undatum</i> L.)      | 0           | 0          | 3                | 1                | 0        | 4          |
| ?Red whelk<br>( <i>Neptunea antiqua</i> L.) | 0           | 0          | 1                | 0                | 0        | 1          |
| Mussel<br>( <i>Mytilus edulis</i> L.)       | 4           | 16         | 85               | 0                | 0        | 105        |
| Oyster<br>( <i>Ostrea edulis</i> L.)        | 30          | 130        | 146              | 17               | 6        | 329        |
| Cockle<br>( <i>Cerastoderma edule</i> L.)   | 1           | 3          | 12               | 1                | 0        | 17         |
| <b>Total (marine taxa)</b>                  | <b>35</b>   | <b>149</b> | <b>247</b>       | <b>19</b>        | <b>6</b> | <b>456</b> |
| <i>Helix</i> sp.                            | 1           | 5          | 2                | 1                | 0        | 9          |
| <b>Total</b>                                | <b>36</b>   | <b>154</b> | <b>249</b>       | <b>20</b>        | <b>6</b> | <b>565</b> |

Table 5. Additional notes on oyster valves from Hungate, York, summarised by period. A >?= before numbers indicates possible numbers (e.g. >3(?6) = definitely 3, possibly as many as 6). **Key:** >Right valves= = number of right (or upper) valves; >Left valves= = number of left (or lower) valves; >Indet. valves= = number of valves of indeterminate side; >Knife marks= = number of valves showing damage characteristic of the oyster having been opened using a knife or similar implement; >Measurable?= = estimated number of valves well enough preserved to provide metrical data; >Worm burrows= = number of valves showing damage by polychaet worms; >Barnacles= = number of valves with barnacles; >Dog whelk= = number of valves showing damage from dog whelk boring.

| Period             | Left valves | Right valves | Indet. valves | Knife marks | Measurable? | Worm burrows | Barnacles | Dog whelk |
|--------------------|-------------|--------------|---------------|-------------|-------------|--------------|-----------|-----------|
| not dated          | 11          | 12           | 7             | 9(?14)      | 3           | 0            | 0         | 0         |
| medieval           | 53          | 42           | 35            | 47(?64)     | 17          | 1            | 1         | 0         |
| p o s t - medieval | 60          | 61           | 25            | 65(?74)     | 23          | 1            | 0         | 0         |
| e a r l y modern   | 7           | 5            | 5             | 4(?5)       | 3           | 1            | 0         | 0         |

|               |            |            |           |                  |           |          |          |          |
|---------------|------------|------------|-----------|------------------|-----------|----------|----------|----------|
| <b>modern</b> | 3          | 1          | 2         | 2                | 2         | 0        | 0        | 0        |
| <b>Total</b>  | <b>134</b> | <b>121</b> | <b>74</b> | <b>127(?159)</b> | <b>48</b> | <b>3</b> | <b>1</b> | <b>0</b> |

Table 6. The number of boxes of vertebrate remains recovered from each trench at Hungate, York, by general period. Key: A/S = Anglo/Scandinavian.

| Site code | Roman | A / S<br>- early |      | l a t e | p o s t - | modern<br>o r<br>broadly<br>dated | Total no.<br>of boxes | No. of<br>contexts<br>w i t h<br>bone |
|-----------|-------|------------------|------|---------|-----------|-----------------------------------|-----------------------|---------------------------------------|
| 2000.2    | -     | -                | -    | 1       | 4         | 1                                 | 6                     | 21                                    |
| 2000.3    | -     | -                | -    | -       | -         | 0.25                              | 0.25                  | 3                                     |
| 2000.5    | -     | -                | -    | -       | -         | 0.25                              | 0.25                  | 3                                     |
| 2000.6    | 0.75  | 1.75             | 1    | 7.5     | -         | 1                                 | 12                    | 54                                    |
| 2000.7    | -     | 7.5              | -    | 1.5     | -         | 1                                 | 10                    | 32                                    |
| 2000.8    | 0.5   | 1.5              | -    | -       | -         | 1                                 | 3                     | 29                                    |
| 2000.9    | -     | -                | -    | -       | -         | 0.25                              | 0.25                  | 4                                     |
|           | -     | 3.25             | 0.5  | -       | -         | 0.25                              | 4                     | 39                                    |
|           | -     | -                | -    | -       | -         | 0.25                              | 0.25                  | 3                                     |
|           | -     | -                | 0.25 | 1       | -         | 2.75                              | 4                     | 23                                    |
|           | -     | -                | -    | -       | -         | 3                                 | 3                     | 24                                    |
|           | -     | -                | -    | -       | -         | 1                                 | 1                     | 8                                     |

Table 7. The number of fragments, measurable bones and mandibles with teeth in situ recorded for the evaluation from each trench at Hungate, York, by general period.

| Period                       | Site code | T o t a l<br>f r a g m e n t s<br>evaluated | N o .<br>mandibles | N o .<br>measurable | No. of boxes<br>evaluated |
|------------------------------|-----------|---|--------------------|---------------------|---------------------------|
| Roman                        | 2000.6    | 138   | 1                  | 4                   | 0.75                      |
| Anglo/Scan<br>early medieval | 2000.6    | 535   | 14                 | 33                  | 1.75                      |
|                              | 2000.7    | 509   | 16                 | 39                  | 4                         |
|                              | 2000.8    | 198   | 5                  | 16                  | 1.25                      |
|                              | 2000.10   | 412   | 3                  | 25                  | 2.5                       |

|                         |               |      |    |    |      |
|-------------------------|---------------|------|----|----|------|
| medieval                | 2000.10       | 30   | 0  | 1  | 0.25 |
|                         | 2000.12       | 106  | 1  | 7  | 0.25 |
| late medieval           | 2000.2        | 163  | 1  | 10 | 1    |
|                         | 2000.6        | 985  | 14 | 88 | 4.25 |
|                         | 2000.7        | 210  | 3  | 22 | 1    |
|                         | 2000.12       | 490  | 7  | 53 | 1    |
| post-medieval           | 2000.2        | 423  | 22 | 53 | 3    |
| modern<br>broadly dated | or<br>2000.12 | 1364 | 7  | 56 | 2.75 |

## **12. CATALOGUE OF PHOTOGRAPHS**

The following colour photographs are numbered as part of the York Archeological Trust photographic archive.

2000:001:02 Trench 8 general view of the base of the trench and south east facing section  
2000:001:05 Trench 8 general view of the base of the trench and south east facing section  
2000:001:09 Trench 8 skeleton 8070, coffin stain 8071 and grave cut 8072  
2000:001:10 Trench 8 excavation of burial 8070  
2000:001:12 Trench 8 excavation of burial 8070  
2000:001:13 Trench 24 uppermost deposits within the trench facing south-east  
2000:001:14 Trench 24 uppermost deposits within the trench facing north  
2000:001:15 Trench 24 uppermost deposits within the trench facing north  
2000:001:17 Trench 24 uppermost deposits within the trench facing east  
2000:001:20 General view of Stonebow  
2000:001:21 General view of Stonebow  
2000:001:22 General view of Stonebow  
2000:001:24 Trench 12 base of trench showing contexts 12029, 12017 and 12028  
2000:001:29 Trench 20 general view of work in progress  
2000:001:30 Trench 20 general view of work in progress  
2000:001:31 Trench 20 general view of work in progress  
2000:001:32 Trench 24 wall 24007 facing south-east  
2000:001:34 Trench 24 architectural fragment 13 in-situ  
2000:001:36 Trench 12 context 12027

2000:002:01 Trench 15 contexts 15017 and 15005  
2000:002:06 Trench 33 prior to excavation  
2000:002:07 Trench 25 prior to excavation  
2000:002:08 Trench 25 prior to excavation  
2000:002:13 Trench 25 on completion facing north-east  
2000:002:15 Trench 25 south east facing section  
2000:002:18 Trench 25 south east facing section  
2000:002:20 Trench 33 on completion facing north-west  
2000:002:21 Trench 33 contexts 33016 and 33017  
2000:002:22 Trench 33 contexts 33008 and 33005  
2000:002:24 Trench 33 north-east facing section  
2000:002:26 Trench 8 prior to excavation  
2000:002:27 Trench 11 prior to excavation  
2000:002:28 Trench 20 general view of work in progress  
2000:002:29 Trench 20 general view of work in progress  
2000:002:30 Trench 20 general view of work in progress  
2000:002:31 Trench 11 uppermost deposits facing north  
2000:002:32 Trench 8 uppermost deposits facing south-west  
2000:002:34 Trench 20 context 20085  
2000:002:36 Trench 8 contexts 8011 and 8013 facing north

- 2000:003:02 Trench 15 brick culvert and repair facing east
- 2000:003:03 Trench 15 on completion facing west
- 2000:003:04 Trench 15 on completion facing north
- 2000:003:08 Trench 20 context 20088
- 2000:003:09 Trench 20 context 20087
- 2000:003:10 Trench 20 context 20087
- 2000:003:11 Trench 11 general view of complex occupation surfaces facing north-west
- 2000:003:12 Trench 11 general view of complex occupation surfaces facing south-east
- 2000:003:13 Trench 8 contexts 8020 and 8010 facing north-east
- 2000:003:14 Trench 8 contexts 8011, 8019, 8020 and 8037 facing north-west
- 2000:003:15 The excavation team
- 2000:003:16 The excavation team
- 2000:003:17 Trench 16B context 16162 facing east
- 2000:003:20 Trench 1 south-east facing section
- 2000:003:21 Trench 1 on completion facing south-east
- 2000:003:22 Trench 1 on completion facing south-east
- 2000:003:25 Trench 12 on completion facing west
- 2000:003:29 Trench 8 context 8033
- 2000:003:30 Trench 12 excavation of metalwork within the trench
- 2000:003:31 Trench 12 excavation of metalwork within the trench
- 2000:003:32 Trench 11 complex occupation deposits facing south-east
- 2000:003:33 Trench 20 context 20097 facing north-east
  
- 2000:004:01 Trench 14 excavation of skeleton 14027
- 2000:004:02 Trench 14 excavation of skeleton 14027
- 2000:004:04 Trench 20 context 20059
- 2000:004:05 Trench 20 context 20059
  
- 2000:005:02 Trench 13 excavation of skeleton 13012
- 2000:005:03 Trench 13 excavation of skeleton 13012
- 2000:005:05 Trench 13 skeleton 13012
- 2000:005:10 Trench 20 general shot of work in progress
- 2000:005:13 Trench 16a on completion facing east
- 2000:005:15 Trench 13 contexts 13008, 13031 and 13032 facing north
- 2000:005:19 Trench 13 contexts 13031 and 13032 facing north
- 2000:005:20 Trench 13 context 13032 detail of lewis holes
- 2000:005:21 Trench 13 contexts 13008 and 13031 facing east
- 2000:005:22 Trench 13 contexts 13008, 13031 and 13032 facing south
- 2000:005:23 Trench 13 contexts 13008, 13031 and 13032 facing south
- 2000:005:24 Trench 13 excavation of contexts 13008, 13031 and 13032
- 2000:005:25 Trench 15 prior to excavation
- 2000:005:26 Trench 18 north-west facing section
- 2000:005:28 Trench 18 facing south-east
- 2000:005:29 Trench 14 context 14010
- 2000:005:31 The trench 14 excavation team
- 2000:005:32 Trench 13 context 13082
- 2000:005:34 Trench 13 excavation of skeleton 13065

2000:005:35 Trench 13 excavation of skeleton 13065

2000:005:36 Trench 13 excavation of skeleton 13065

2000:006:02 Trench 20 prior to excavation

2000:006:03 Trench 20 prior to excavation

2000:006:04 Trench 20 prior to excavation

2000:006:06 Trench 14 prior to excavation

2000:006:08 Trench 19 prior to excavation

2000:006:09 Trench 16A after initial machine clearance

2000:006:10 Trench 16B after initial machine clearance

2000:006:17 Trench 16A north-facing section

2000:006:18 Trench 14 prior to excavation

2000:006:19 Trench 18 prior to excavation

2000:006:21 Trench 19 on completion facing north-east

2000:006:25 Trench 13 context 13007 facing east

2000:006:27 Trench 13 context 13007 facing east

2000:006:30 Trench 13 context 13007 facing east

2000:006:31 Trench 13 excavation of context 13007 facing east

2000:006:32 Trench 13 excavation of context 13007 facing east

2000:006:33 Trench 13 excavation of context 13007 facing east

2000:006:34 Trench 13 excavation of context 13007 facing east

2000:007:01 Trench 16 following reinstatement

2000:007:02 Trench 16 following reinstatement

2000:007:03 Trench 14 prior to excavation

2000:007:04 Trench 13 following reinstatement

2000:007:05 Trench 24 context 25048

2000:007:08 General view of Derwent coachworks

2000:007:09 General view of Derwent coachworks

2000:007:10 General view of Derwent coachworks

2000:007:11 General view of Derwent coachworks

2000:007:12 Trench 24 context 24065 facing south

2000:007:15 Architectural fragment number 6, context 16166

2000:007:16 Architectural fragment number 6, context 16166, detail of coarse tooling

2000:007:17 Architectural fragment number 8, context 12000

2000:007:18 Architectural fragment number 8, context 12000, detail of socket

2000:007:19 Architectural fragment number 8, context 12000, detail of socket

2000:007:20 Architectural fragment number 8, context 12000

2000:007:21 Architectural fragment number 7, context 12000

2000:007:22 Architectural fragment number 7, context 12000

2000:007:23 Architectural fragment number 5, context 14011

2000:007:24 Architectural fragment number 5, context 14011

2000:007:25 Architectural fragment number 5, context 14011

2000:007:26 Architectural fragment number 5, context 14011

2000:007:27 Architectural fragment number 5, context 14011

2000:007:28 Architectural fragment number 2, context 13001

2000:007:29 Architectural fragment number 2, context 13001

2000:007:30 Architectural fragment number 2, context 13001, detail of tooling  
2000:007:31 Architectural fragment number 3, context 13001  
2000:007:32 Architectural fragment number 3, context 13001  
2000:007:34 Architectural fragment number 3, context 13001  
2000:007:35 Architectural fragment number 1, context 13001  
2000:007:36 Architectural fragment number 1, context 13001, detail of tooling

2000:008:03 Trench 24 contexts 24024 and 24025  
2000:008:04 Trench 24 contexts 24024 and 24025  
2000:008:06 Trench 24 context 24025  
2000:008:07 Trench 24 upper surface of wall 24007  
2000:008:08 Trench 24 south elevation of wall 24007  
2000:008:09 Trench 24 south elevation of wall 24007 facing west  
2000:008:11 Trench 24 levelling deposits built up against the southern elevation of wall 24007  
2000:008:16 Trench 24 upper surface of wall 24007  
2000:008:17 Trench 24 contexts 24048 and 24049  
2000:008:22 Trench 24 south elevation of wall 24007  
2000:008:23 Trench 24 excavation of south elevation of wall 24007  
2000:008:24 Trench 24 excavation of south elevation of wall 24007  
2000:008:25 Trench 24 excavation of south elevation of wall 24007  
2000:008:26 Trench 24 work in progress  
2000:008:30 Trench 24 east facing section  
2000:008:31 Trench 11 on completion

2000:001:18 Drain repairs to trench 19  
2000:001:19 Trench 20 on completion  
2000:001:32 General view of Territorial Army car park after excavations completed  
2000:001:33 Trench 8 after reinstatement  
2000:001:34 Trench 14 after reinstatement  
2000:001:35 Trench 33 after reinstatement  
2000:001:36 Trench 15 after reinstatement  
2000:001:37 Trench 18 after reinstatement

2000:009:03 Trench 13 skeleton 13065  
2000:009:04 Trench 13 skeleton 13065  
2000:009:06 Trench 15 contexts 15002 and 15003 facing north  
2000:009:08 Trench 20 context 20047  
2000:009:11 Trench 14 context 14021  
2000:009:14 Trench 15 contexts 15013 and 15006  
2000:009:16 Trench 14 contexts 14021 and 14020 facing north-east  
2000:009:17 Trench 14 contexts 14021 and 14020 facing south-west  
2000:009:20 Trench 20 contexts 20061 and 20068  
2000:009:21 Trench 20 contexts 20060 and 20074  
2000:009:23 Trench 20 contexts 20060 and 20074  
2000:009:24 Trench 20 contexts 20060 and 20074  
2000:009:26 Trench 20 contexts 20069 and 20068  
2000:009:27 Trench 20 contexts 20069 and 20068

2000:009:29 Trench 14 skeleton 14027  
2000:009:31 Trench 14 skeleton 14027  
2000:009:35 Trench 14 skeleton 14027

2000:010:01 Architectural fragment number 1, context 13001  
2000:010:02 Architectural fragment number 1, context 13001  
2000:010:03 Architectural fragment number 4, context 11000  
2000:010:06 Architectural fragment number 4, context 11000  
2000:010:07 Architectural fragment number 9, context 24000  
2000:010:08 Architectural fragment number 10, context 24000  
2000:010:11 Trench 24 context 24065 facing north  
2000:010:13 Trench 24 recording of context 24007  
2000:010:15 Trench 24 recording of context 24007  
2000:010:17 Trench 24 recording of context 24007  
2000:010:18 Trench 24 recording of sections  
2000:010:19 Trench 24 recording of sections  
2000:010:20 Trench 24 recording of sections  
2000:010:22 Trench 24 recording of sections  
2000:010:23 Trench 24 recording of sections  
2000:010:24 Architectural fragment number 11, context 8021  
2000:010:25 Architectural fragment number 11, context 8021  
2000:010:27 Architectural fragment number 12, context 13004  
2000:010:28 Architectural fragment number 12, context 13004  
2000:010:30 Trench 24 south elevation of wall 24007  
2000:010:33 Trench 24 south elevation of wall 24007  
2000:010:35 Trench 24 south elevation of wall 24007

2000:011:16 Trench 11 on completion facing south  
2000:011:18 Trench 11 on completion facing south  
2000:011:20 Trench 11 east facing section  
2000:011:21 Trench 11 east facing section  
2000:011:22 Trench 11 south facing section  
2000:011:23 Trench 11 west facing section  
2000:011:25 Trench 11 on completion  
2000:011:26 Trench 11 on completion  
2000:011:27 Trench 11 on completion facing south  
2000:011:29 General view of Derwent coachworks  
2000:011:30 General view of Derwent coachworks  
2000:011:31 General view of Derwent coachworks  
2000:011:32 General view of Derwent coachworks  
2000:011:33 General view of Derwent coachworks  
2000:011:34 General view of Derwent coachworks

2000:018:02 Architectural fragment 13 context 24086  
2000:018:03 Architectural fragment 13 context 24086  
2000:018:04 Architectural fragment 13 context 24086  
2000:018:05 Architectural fragment 13 context 24086

2000:018:06 Architectural fragment 13 context 24086, detail of fine tooling  
2000:018:07 Architectural fragment 13 context 24086, detail of fine tooling  
2000:018:08 Architectural fragment 13 context 24086, detail of fine tooling  
2000:018:09 Architectural fragment 13 context 24086, detail of fine tooling  
2000:018:11 Architectural fragment 13 context 24086, detail of fine tooling  
2000:018:12 Architectural fragment 13 context 24086, detail of fine tooling  
2000:001:13 Architectural fragment 13 context 24086, detail of fine tooling  
2000:001:14 Architectural fragment 13 context 24086, detail of fine tooling  
2000:001:15 Architectural fragment 13 context 24086, detail of coarse tooling  
2000:001:16 Architectural fragment 13 context 24086, detail of fine tooling  
2000:001:18 Architectural fragment 13 context 24086, detail of fine tooling

## **13. SPECIFICATION**

### **13.1 INTRODUCTION**

- 13.1.1 This document sets out the details of the archaeological evaluation which will be required in the Hungate area prior to the development of a masterplan and the submission of a planning application. There is good reason to believe that there are remains of archaeological importance preserved on this site. The information this evaluation will provide is necessary to allow the masterplan and any subsequent planning application to take due account of archaeological deposits which are preserved on this site.
- 13.1.2 The results of this archaeological evaluation will be used to determine the nature of any mitigation strategy that might be necessary and the scale of archaeological work that it might include.
- 13.1.3 The archaeological policy of the planning authority is to seek to preserve at least 95% of archaeological deposits underneath a new development. The City of York Council will advise an applicant on how this preservation target can be achieved.
- 13.1.4 The final report on the results of this evaluation and an appropriate mitigation strategy will normally be required before an application for this site is taken to Planning Committee. This follows the archaeology policy adopted by the City of York Council and the advice issued by the Secretary of State for the Environment contained in Planning Policy Guidance 16 'Archaeology and Planning' (PPG 16).
- 13.1.5 This document remains the copyright of the City of York Council. It may be used for the purposes of securing competitive estimates from archaeological units. Where it is used for such purposes, it must be used within a formal tender process where appropriate professional procedures will be followed. In this respect, the attention of all parties is drawn to the Institute of Field Archaeologists Code of Conduct and the Institute of Field Archaeologists Code of Practice for those involved in Competitive Tendering.

### **13.2 SITE DESCRIPTION**

- 13.2.1 The site is centred at located at NGR SE 60705180. The Hungate area lies within the Foss valley on the south-east side of the historic core of the City. It is bounded by the River Foss to the south and east, by Stonebow to the north and by Garden Place to the west. The site is fairly level. The site consists of an area of approximately 40000m<sup>2</sup>.

### **13.3 SUMMARY ARCHAEOLOGICAL DESCRIPTION**

- 13.3.1 The site comprises a large area of land on the north side of the River Foss. The site lies in an area which has been the subject of much topographical change over the past 2000 years. Therefore, although much can be conjectured about the development of this area, it is difficult to be precise.
- 13.3.2 The area has been the focus of settlement from at least the Roman period. The area appears to have been peripheral to the main concentrations of Roman, Anglo-Scandinavian and medieval occupation. The nature of much of this occupation in this area is not known. An extract from the York Archaeological Trust's Gazetteer of evaluations and watching briefs for this area is attached, as is a print out from the Urban Archaeological Database.
- 13.3.3 Little is known of the use of this area in the Anglian period. In the Anglo-Scandinavian period it has been suggested on the basis of evidence from the Coppergate excavations and

the work at the Stonebow Telephone Exchange that there was a set of waterfront structures in this area.

- 13.3.4 When York Castle was built c. 1068 a dam was built across the Foss valley approximately along the line of what is now Castle Mills Bridge. The dam was built in order to provide a set of flooded ditches around the castle; it also created an artificial lake (the Kings Pool) which flooded the Foss valley as far as Monk Bridge. The next 700 years is a story of progressive reclamation of and dumping in the Kings Pool. The land to the north of the Pool was used as the site of the Carmelite Friary. Nothing is known of the layout of this institution. However, there will be the remains of a church, graveyard and the many ancillary buildings which made up a Friary. There are two churches within the proposed development area: St John in the Marsh and All Saints. The graveyard of the latter has been partially excavated. However, location of the former is only known approximately. These archaeological sites will have a significant effect on the layout of the scheme. One can anticipate the existence of up to 2500 burials on the Friary site and within the graveyards of the two medieval churches.
- 13.3.5 The OS map of 1852 shows an area almost completely developed and covered by housing. There is also a large gasworks shown on the site. Much of this pattern of development was swept away between 1939 and 1945, when the current form of the area began to take shape.
- 13.3.6 The archaeological sequence on this site is very deep, waterlogged, with excellent preservation of organic deposits. It represents an unscheduled site of national importance.
- 13.3.7 The York Archaeological Trust have produced an archaeological desk-top study of the site (YAT 1999). The desk-top study summarises the archaeological information relating to this area. It is clear from the desk-top study that a programme of intrusive trenches will be necessary in order to define the precise character date and importance of the archaeological deposits on this site.

#### **13.4 THE DEPOSIT MODEL**

- 13.4.1 The approximate levels (metres above OD) are:

|                    |       |
|--------------------|-------|
| Modern             | 10.5  |
| Medieval           |       |
| Anglo-Scandinavian |       |
| Anglian            |       |
| Roman              |       |
| Natural            | 4-8.5 |

- 13.4.2 This predicts between 1.5 and 6m of archaeological deposits. However, there are relatively few accurate local data points and this estimate might be incorrect by up +/-1m.

#### **13.5 THE EVALUATION PROGRAMME**

- 13.5.1 The site is very large and will allow an opportunity to address a number of research issues. These are not exclusive and will be amended and expanded to take account of the data which comes to light during the evaluation programme:

- 13.5.1.1 pre-Roman exploitation of the Foss valley;
- 13.5.1.2 the possible use of this area as a focus for waterfront activities during the Roman period and Anglo-Scandinavian periods;
- 13.5.1.3 the impact of the flooding of the Foss Valley in 1068;
- 13.5.1.4 the location, origins and development of the churches of All Saints and St. John in the Marsh and their associated cemeteries;
- 13.5.1.5 the layout and development of the Carmelite Friary;
- 13.5.1.6 the origins and development of the street pattern in this area and in particular of Hungate;
- 13.5.1.7 the changing environmental characteristics of the Foss valley in the post-glacial period;
- 13.5.2 The on-site evaluation should consist of the excavation of 14 trenches shown on the attached plan (these may be subject to alteration following detailed discussion with the client and the archaeological contractor):
- 13.5.3 The following methodologies must be used:
  - 13.5.3.1 all operations should limit destruction to what is necessary to implement this specification. Where the examination of trenches is necessary:
  - 13.5.3.2 all overburden will be removed by mechanical excavator under archaeological supervision, down to the top of archaeological deposits. Thereafter, all excavation will be by hand. Areas of intensive modern disturbance will be given a low priority in excavation. Where practicable, the fills of these features will be removed by mechanical excavator. The following methodologies must be used
  - 13.5.3.3 all appropriate records must be made and kept;
  - 13.5.3.4 all archaeological contexts must be sampled in accordance with a sampling strategy agreed in advance with the EAU and approved in writing by the Assistant Director (Planning and Building Control). In addition to hand collected animal bone from all contexts, contexts selected in consultation with the EAU must be sieved to retrieve more meaningful collections of faunal remains (see also Appendix One below);
  - 13.5.3.5 all records must be indexed, ordered, quantified, and checked for consistency;
  - 13.5.3.6 all artefacts and ecofacts recovered and retained from the evaluation must be packed and stored in the appropriate materials and conditions to ensure that minimal deterioration takes place and that all their associated records are complete;
  - 13.5.3.7 in addition to this basic work to complete the records to Level 2, the environmental samples must be processed and assessed;
  - 13.5.3.8 the rest of the material archive must be assessed for its potential to contribute to artefactual research;
  - 13.5.3.9 and the stratigraphic sequence assessed.

- 13.5.4 The details and processes outlined in 14.5.1—14.5.3 will produce the following output as a concise report:
- 13.5.4.1 plan of site showing position of trenches;
  - 13.5.4.2 portfolio of drawn sections, trench plans, and, where appropriate, drawings of artefacts;
  - 13.5.4.3 an interpretation of the structural sequence;
  - 13.5.4.4 an interpretation of the archaeological and research potential of the remainder of the site.
  - 13.5.4.5 the long term care of the evaluation archive must be provided for. All the original material and paper archive must be prepared for deposition with an approved archaeological depository such as the Yorkshire Museum. These Institutions will normally make a charge to cover the long-term curation of the archaeological archive. The requirements of the receiving Institution must be identified at the time of producing an estimate for this scheme of investigation. This will ensure that if further work is not necessary, the archive for the evaluation will be complete. **Four copies of the report** must be deposited with The City of York Council no later than eight weeks after the end of the work on site. In addition a copy of the report must be supplied in electronic form. This should be done on a 3.5" PC 1.4mb double sided high density disk, as either an ASCII file, or as a MS Word for Windows or Word Perfect file. If possible illustrations should be supplied in either DXF, .BMP, .JPG, .PCX or Windows Metafile format. If in doubt about formats please contact John Oxley on 01904 551346 or e-mail to [john.oxley@york.gov.uk](mailto:john.oxley@york.gov.uk). Once an evaluation report has become a public document by forming part of a planning application, The City of York Council would like to place the information on its WWW pages (at present under construction). Please ensure that you and your client agree to this procedure in writing as part of the process of submitting the evaluation report to the Principal Archaeologist.
- 13.5.5 All estimates should include allowance for the preparation and publication of a synopsis of the narrative report, material archive and research potential of the site in a form such as is used in *Medieval Britain and Ireland* in *Medieval Archaeology*.
- 13.5.6 The Contractor will be required to demonstrate by providing CV's that the staff appointed to direct, supervise, and work on this project have relevant experience of working both on complex urban sites and the complex archives which they produce.
- 13.5.7 All work must be done using the Yorkshire Museum accession and numbering systems.
- 13.5.8 The Contractor must use a computer-based recording and retrieval system and report publishing system. The recording system must be based on single context recording and planning. The publishing system should be able to produce text and illustrations in the formats detailed in para 5.4.5 above. The Contractor must have the written approval of The City of York Council for the recording system which it wishes to use on this site.
- 13.5.9 The Contractor must submit a full project design and/or a schedule of works which it develops from this scheme of investigation to The City of York Council for written approval prior to work commencing on-site.
- 13.5.10 The Contractor must give at least seven days notice in writing of the start of works on site to: *Assistant Director (Planning and Building Control), Planning and Building Control, 9 St Leonards Place, York, YO1 2ET*

13.5.11 The Contractor will be subject to regular monitoring visits by The City of York Council. Reasonable access must be given at all times to the Principal Archaeologist, The City of York Council or his agent to the site and to premises used for the purposes of post-excavation work to allow this monitoring to proceed. This will ensure that the scheme of investigation is being followed and that high professional standards are being maintained. It can be anticipated that The City of York Council will want to inspect a 10% sample of all archaeological records generated by the project.

## **13.6 REINSTATEMENT**

13.6.1 Ground reinstatement standards are not specified in this document.

13.6.2 Contractors must ensure that the question of backfilling and surface re-instatement is discussed with the client/landowner prior to any works commencing on-site.

## **14. PROJECT DESIGN**

### **14.1 INTRODUCTION**

14.1.1 York Archaeological Trust is the Investigating Authority for the York Area of Archaeological Importance. This document sets out the details of the archaeological evaluation which will be undertaken in the Hungate area of York prior to the submission of a planning application for development. The Hungate area is within the York Area of Archaeological Importance. There is good reason to believe that there are remains of archaeological importance preserved in this area. The information that this evaluation will provide is necessary to allow the planning application to take due account of archaeological deposits which are currently preserved on this site.

14.1.2 The results of this archaeological evaluation will be used to determine the nature of any mitigation strategy that might be necessary and the scale of archaeological work that it might include.

14.1.3 The archaeological policy of the City of York planning authority is to seek to preserve at least 95% of archaeological deposits underneath a new development.

14.1.4 A report on the results of this evaluation and an appropriate mitigation strategy will be required before an application for this site is taken to Planning Committee. This follows the archaeology policy adopted by the City of York Council and the advice issued by the Secretary of State for the Environment contained in Planning Policy Guidance 16 'Archaeology and Planning' (PPG 16).

### **14.2 SITE DESCRIPTION**

14.2.1 The site is centred on NGR SE 6070 5180. The Hungate area lies within the valley of the River Foss on the south-east side of the historic core of the City of York. It is bounded by the River Foss to the south and east, by Stonebow to the north and by Garden Place to the west. The site is fairly level. The area is currently largely covered with small scale commercial premises although in the 19<sup>th</sup> and early 20<sup>th</sup> centuries larger scale industrial premises were present.

### **14.3 SUMMARY ARCHAEOLOGICAL DESCRIPTION**

- 14.3.1 The site comprises a large area of land on the north side of the River Foss. It lies in an area which has been the subject of much topographical change over the past 2000 years. Therefore, although much can be conjectured about the development of this area, it is difficult to be precise.
- 14.3.2 The area has been the focus of settlement from at least the Roman period. The area appears to have been peripheral to the main concentration of Roman occupation but may have been more significant in the Anglo-Scandinavian and medieval periods. The nature of much of this occupation in this area is not well known.
- 14.3.3 Little is known of the use of this area in the Anglian period. In the Anglo-Scandinavian period it has been suggested on the basis of evidence from the Coppergate excavations and the work at the Stonebow Telephone Exchange that there were waterfront structures in this area.
- 14.3.4 When York Castle was built c1068 a dam was built across the Foss valley approximately on the line of what is now Castle Mills Bridge. The dam was built in order to provide a set of flooded ditches around the castle; it also created an artificial lake (the King's Pool) which flooded the Foss valley as far as Monk Bridge. The next 700 years is a story of progressive reclamation of and dumping in the King's Pool. The land to the north of the Pool was used as the site of the Carmelite Friary. Nothing is known of the layout of this institution. However, there will be the remains of a church, graveyard and the many ancillary buildings which made up a Friary. There are two churches within the proposed development area: St John in the Marsh and All Saints, Peasholme Green. The church and graveyard of the latter have been partially excavated. However, the location of the former is only known approximately. These archaeological sites will have a significant effect on the layout of the development scheme. Up to 2500 burials on the Friary site and within the graveyards of the two medieval churches should be anticipated.
- 14.3.5 The OS map of 1852 shows an area almost completely developed and covered by housing. There is also a large gasworks shown on the site. Much of this pattern of development was swept away between 1939 and 1945, when the current form of the area began to take shape.
- 14.3.6 The archaeological sequence on this site is very deep, waterlogged, with excellent preservation of organic deposits. It represents an unscheduled site of national importance.
- 14.3.7 York Archaeological Trust has produced an archaeological desk-top study of the site (YAT 1999b). This summarises the archaeological information relating to this area. It is clear from the study, and from an analysis of geotechnical bore-holes and test pits (YAT 1999a and c), that a programme of intrusive trenches will be necessary in order to define the precise character, date and importance of the archaeological deposits on this site.

## **14.4 THE EVALUATION PROGRAMME**

- 14.4.1 The site is very large and will allow the opportunity to address a number of research issues. These are not exclusive and will be amended and expanded to take account of the data which comes to light during the evaluation programme:
- 14.4.1.1 pre-Roman exploitation of the Foss valley;
  - 14.4.1.2 the possible use of this area as a focus for waterfront activities during the Roman period and Anglo-Scandinavian periods;
  - 14.4.1.3 the impact of the flooding of the Foss Valley in 1068;
  - 14.4.1.4 the location, origins and development of the churches of All Saints and St John in the Marsh and their associated cemeteries;
  - 14.4.1.5 the layout and development of the Carmelite Friary;
  - 14.4.1.6 the origins and development of the street pattern in this area and in particular of Hungate
  - 14.4.1.7 the changing environmental characteristics of the Foss valley in the post-glacial period
- 14.4.2 The on-site evaluation will, initially consist of the excavation of 14 trenches as shown on the attached plan.
- 14.4.3 The following methodologies will be used:
- 14.4.3.1 All operations will limit destruction to what is necessary to implement this scheme of investigation. Where the examination of trenches is necessary:
  - 14.4.3.2 All overburden will be removed by mechanical excavator under archaeological supervision, down to the top of archaeological deposits. Thereafter, all excavation will be by hand. Areas of intensive modern disturbance will be given a low priority in excavation. Where practicable, the fills of these features will be removed by mechanical excavator. The following methodologies will be used
  - 14.4.3.3 all appropriate records will be made and kept;
  - 14.4.3.4 all archaeological contexts will be sampled in accordance with a sampling strategy agreed in advance with the EAU and approved in writing by the Assistant Director (Planning and Building Control). In addition to hand collected animal bone from all contexts, contexts selected in consultation with the EAU will be sieved to retrieve more meaningful collections of faunal remains (see also Appendix 2 below);
  - 14.4.3.5 all records will be indexed, ordered, quantified, and checked for consistency;
  - 14.4.3.6 all artefacts and ecofacts recovered and retained from the evaluation will be packed and stored in the appropriate materials and conditions to ensure that minimal deterioration takes place and that all their associated records are complete (see Appendix 1);
  - 14.4.3.7 in addition to this basic work to complete the records to Level 2, the environmental samples will be processed and assessed;

- 14.4.3.8 the rest of the material archive will be assessed for its potential to contribute to artefactual research;
- 14.4.3.9 and the stratigraphic sequence will be assessed.
- 14.4.4 The details and processes outlined in 15.4.1—15.4.3 will produce the following output as a concise report:
- 14.4.4.1 plan of site showing position of trenches;
- 14.4.4.2 portfolio of drawn sections, trench plans, and, where appropriate, drawings of artefacts;
- 14.4.4.3 an interpretation of the structural sequence;
- 14.4.4.4 an interpretation of the archaeological and research potential of the remainder of the site.
- 14.4.4.5 The long term care of the evaluation archive will be provided for. All the original material and paper archive will be prepared for deposition with the Yorkshire Museum. The requirements of the receiving Institution have been identified. **Four copies of the report** will be deposited with The City of York Council no later than eight weeks after the end of the work on site. Interim reports on the progress of each trench will be produced as the work progresses.
- 14.4.5 An allowance has been made for the preparation and publication of a synopsis of the narrative report, material archive and research potential of the site in a form such as is used in *Medieval Britain and Ireland* in *Medieval Archaeology*.
- 14.4.6 The CV's of the staff appointed to direct, supervise, and work on this project have been provided to City of York Council and demonstrate that the staff have relevant experience of working both on complex urban sites and the complex archives which they produce.
- 14.4.7 The Yorkshire Museum accession and numbering systems will be used.
- 14.4.8 York Archaeological Trust will use a computer-based recording and retrieval system and report publishing system. The recording system is based on single context recording and planning. York Archaeological Trust has the approval of The City of York Council for the recording system which it wishes to use on this site.
- 14.4.9 York Archaeological Trust has submitted this written scheme of works to The City of York Council for approval prior to work commencing on-site.
- 14.4.10 York Archaeological Trust has given seven days notice in writing of the start of works on site to *Assistant Director (Planning and Building Control), Planning and Building Control, 9 St Leonards Place, York, YO1 2ET*
- 14.4.11 York Archaeological Trust will welcome regular monitoring visits by The City of York Council. Reasonable access will be given at all times to the Principal Archaeologist, The City of York Council or his agent to the site and to premises used for the purposes of post-excavation work to allow this monitoring to proceed. This will ensure that the scheme of investigation is being followed and that high professional standards are being maintained. It is anticipated that The City of York Council will want to inspect a 10% sample of all archaeological records generated by the project.

## **14.5 ARTEFACT PROCESSING, STATEMENT OF STANDARDS**

14.5.1 All processing standards are agreed with the Yorkshire Museum (acting for The City of York Council).

### **14.5.2 ON-SITE PROCESSING**

14.5.2.1 All bulk material washed

14.5.2.2 All bulk material except animal bone marked. Marking and labelling materials should be indelible and irremovable by abrasion.

14.5.2.3 All bulk material appropriately boxed and recorded on computer.

14.5.2.4 Identification of brick and tile undertaken on site.

14.5.2.6 All the above to be completed within two months from the end of excavation.

14.5.2.7 All artefacts recorded both in a written register and on computer

14.5.2.8 Artefact recording system compatible with Yorkshire Museum accessioning system.

14.5.2.9 All artefacts appropriately packaged for optimum survival of data.

14.5.2.10 All the above to be completed within two days of the artefact having been excavated.

### **14.5.3 OFF-SITE PROCESSING**

14.5.3.1 All artefact and bulk material data available to researchers, conservators and curatorial staff in a computerised form.

14.5.3.2 Computer system used to monitor location of objects to allow instant access.

14.5.3.3 All material stored in optimum conditions to ensure survival of data. Includes:

Controlled storage where appropriate;  
Correct packaging with inert materials;  
Regular checking of the condition of objects;  
Immediate selection for conservation of vulnerable material

14.5.3.4 All material stored in buildings with appropriate security (see storage below)

14.5.4 CONSERVATION

14.5.4.1 All metal objects x-rayed, then selected for conservation. Non conserved material stored in controlled conditions.

14.5.4.2 All organic material appropriately treated, including prior specialist recording for materials where there is possible information loss in the process of conservation.

14.5.4.3 Specialist advice available in-house for wood, leather, osseous material and textile conservation and research.

14.5.4.4 All other classes of material treated where appropriate.

14.5.4.5 Special packaging undertaken for all vulnerable objects. All textiles and painted glass stored in specialist system.

14.5.5 STORAGE

14.5.5.1 All objects stored in appropriate materials and storage conditions.

14.5.5.2 All objects stored to allow rapid access on demand

14.5.5.3 All storage at appropriate security levels:

Artefacts in storage approved by National Security Adviser or Areas Museums Service.

Bulk material in storage with lower security rating but still physically secure and alarmed.

14.5.5.4 Storage provided for all material between excavation and the deposition of the archive with the Yorkshire Museum.

14.5.6 RESEARCH

14.5.6.1 All artefacts recorded and catalogued on computer database

14.5.6.2 Particular sites or groups of artefacts selected for further research and publication at different levels

14.5.6.3 In-house expertise embraces material from all periods allowing rapid and effective assessment of the material and the devising of an appropriate research strategy.

## **14.6 ENVIRONMENTAL SAMPLING**

A strategy for sampling archaeological deposits has been developed by the Environmental Archaeology Unit (EAU) of the University of York. The on-site work will be undertaken by site staff and analysis of the processed samples will be undertaken by the EAU.

It is considered likely that organic preservation in the revealed deposits will be variable but that some will have good organic preservation (as indicated by previous work in this area) and that in some cases (e.g. dump deposits) they may contain large quantities of well-preserved biological remains. These should be sampled as extensively as possible (allow for up to 140 GBA samples and 100 bulk samples of 10 and 30 litres respectively).

It will not be possible to investigate all of the material as part of the evaluation exercise but it is suggested that of 140 collected, 80 GBA samples should be examined in the laboratory and of these 16 processed and recorded to evaluation level. Similarly for the BS samples 50 of the collected samples should be examined and 10 processed and recorded for evaluation.

Allowance should be made for the recovery of 75 boxes (each of approximately 20 litres) of hand-collected bone (if extensive dump deposits are revealed then even this figure may be too low). For the evaluation allow for 30 boxes to be recorded.

Allow for 8 boxes (each of approximately 20 litres) of hand-collected shell of which 4 should be evaluated.

A total of 20 'SPOT' samples should be allowed for (e.g. timber identifications, examination of faecal material for eggs of parasitic nematodes).

Provision should be made for the collection of 3 monolith samples (equivalent to 3 sections) for investigation of buried soil horizons that may be encountered.

Human remains (associated with the nearby All Saints, St Johns and Carmelite Friary churches) may be encountered. If these remains are to be lifted then they should be fully recorded where appropriate (i.e. where the preservation and completeness of the skeletons allow).

## **14.7 METHOD STATEMENT**

### **14.7.1 INTRODUCTION**

This method statement describes the way in which the written scheme of investigation described above will be implemented.

### **14.7.2 EXCAVATION**

A series of fourteen trenches will be excavated as shown on the plan attached to the written scheme of investigation. The positions of the trenches will be located on the ground using spray paint. These positions will be checked against plans of services obtained from the statutory undertakers and against visible manhole and other service covers. The positions of the trenches will be scanned for services using a cable detector. The trench positions will be re-located as required to avoid services where possible. The surfaces of these trenches will be broken out by a JCB using a hydraulic breaker. Where practical and necessary the surface will be pre-cut to shape with a floor saw. Where services are suspected the precise position of cables and pipes will be located by hand. Modern deposits will then be removed from each trench by JCB under strict archaeological supervision. Thereafter all excavation will be by hand.

The maximum depth of the majority of the trenches is expected to be 1.5 metres. The stability of the trench sides will be examined regularly to determine whether trench supports are required above this depth. Two trenches are expected to continue to greater depth. In these trenches appropriate steel shoring sheets will be inserted supported by a system of hydraulic manhole braces at appropriate intervals. A working method for installing the shoring has been worked out in advance and the site supervisors and staff are aware of the safe method of working.

All staff working in trenches must wear hard hats and steel reinforced boots at all times.