ARCHAEOLOGICAL EXCAVATION & WATCHING BRIEF

63–64 BAXTERGATE – WHITBY

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63 – 64 BAXTERGATE – WHITBY

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Abstract

During August and September–October 1992, a series of excavations and a watching brief were undertaken at 63–64 Baxtergate, Whitby, by MAP Archaeological Consultancy Ltd. Initial enlargement of two engineering testholes on the site had illustrated that well stratified medieval deposits were present and that waterlogged deposits were also to be found. The more extensive excavations and watching brief during construction work confirmed the importance of the archaeology in this area of Whitby. A number of well preserved floor levels were located and a capped well. Waterlogged levels were discovered and a number of well preserved timber posts were revealed. Pottery from the excavations suggested that this area of Whitby had been occupied from the 12th century through to modern times.

1. Introduction

During September and October of 1992, MAP Archaeological Consultancy Ltd undertook limited trench excavations and a watching brief at 63–64 Baxtergate, Whitby, on behalf of the "Trustees of the Peter Croft Settlement", through "Yorvale Developments Ltd". This programme of work was undertaken as a condition attached to the Planning Permission by the Archaeology Section of North Yorkshire County Council Planning Department, in order to record the archaeological history of the site during the proposed development.

The development area, (NZ 8983 1097), which consists of an area c.25 x 12m, most recently occupied by two properties, is situated on the west bank of the river Esk in the heart of the historical town, close to the Upper Harbour and near to the base of a steep terraced hillside which rises up to the north–west (Fig. 1.).

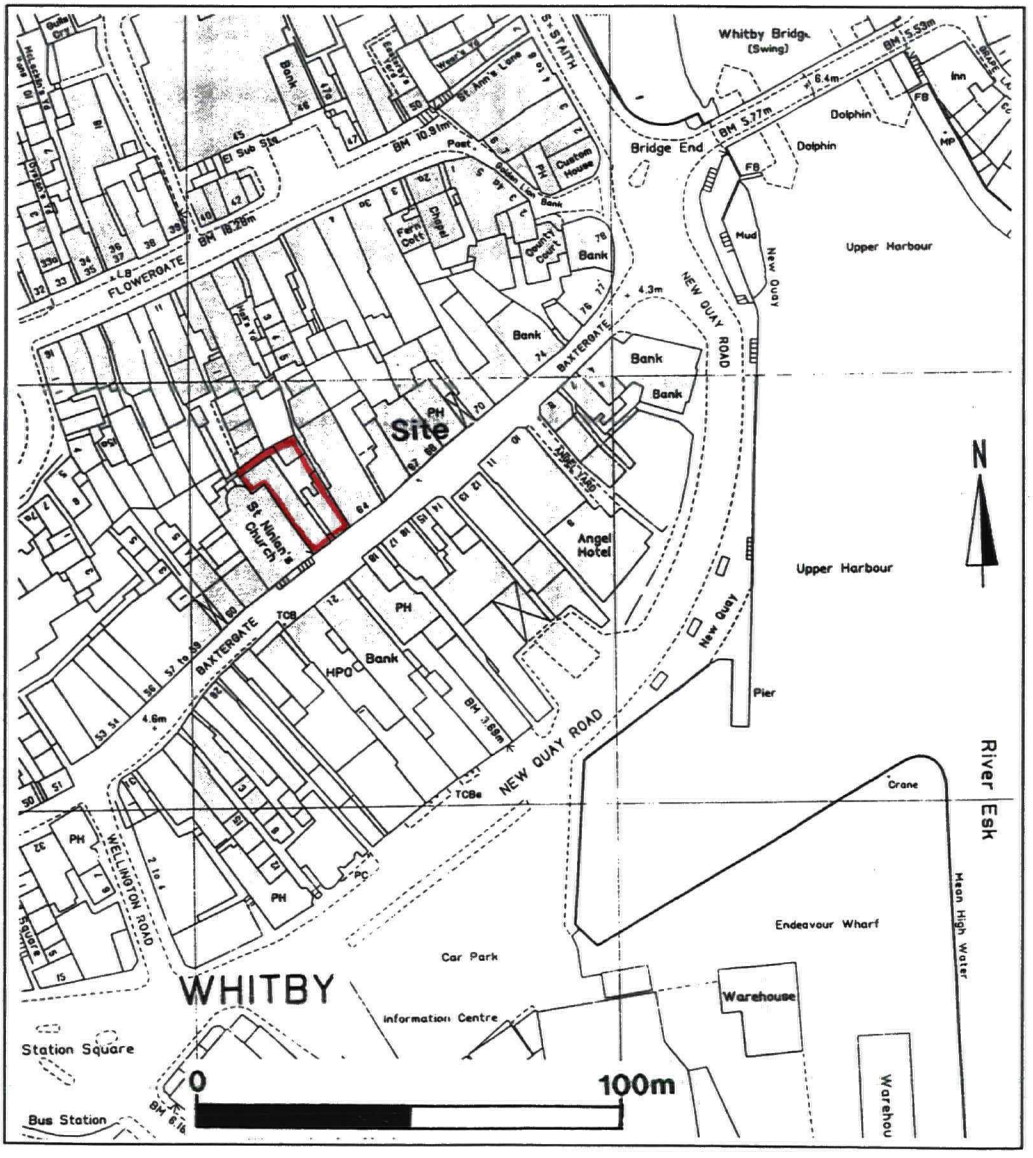

Figure 1.

2. Excavation Methods

Two trenches were excavated at the front of the development site (Fig. 2b). All excavation was carried out manually and all observed contexts were recorded in plan and excavated separately. Due to the problems with the water table in Trench 1 it was decided to excavate the lowest levels by dividing the trench into two. This method was effective in controlling the water problem to a limited extent.

All finds were kept by context (Appendix 2: p. 52). At the completion of excavation, the sections of the trenches were drawn at a scale of 1:10, and a series of colour slides were taken (Appendix 5: p. 69).

Contexts considered useful for environmental analysis of the site were sampled (Appendix 7: p.72).

In addition to the hand excavation, a watching brief was undertaken on all ground works.

The primary phase of work at the site had involved the hand excavation of two testholes in August, 1992 (Johnson, 1992). At this point the buildings which occupied 63–64 Baxtergate were upstanding (Fig. 2a). To carry out development of this site these buildings were demolished in early September. Therefore, when the excavation commenced, the site had been cleared down to the latest (modern) floor levels at the front of the site, and at the back the courtyard and steps were exposed.

Due to the close proximity of St Ninian's Church to the west, and the row of houses to the north (extending southwards from Flowergate: Fig. 1), it was necessary to underpin these boundaries. This work was undertaken using a JCB with an untoothed 0.6m bucket. The underpinning sections were removed in a pre-set order and did not exceed 1m in width, and were excavated to a depth of approximately 4m at the rear of the site (from courtyard level) and to 1.2m along the boundary with St Ninian's Church. To the east, the existing Boots building had been underpinned previously; therefore only a strip foundation was used in this area of the site, the depth of which was approximately 2m raising up to 0.6m in the north of the site, in the area south of the well..

At the front of the site, the two (archaeologically) hand-excavated trenches acted as foundation trenches; no strip foundation was required along the front of the building.

In addition to the excavation of the foundations and underpinning, the site was reduced by approximately 0.5m below the latest floor level. This involved the mechanical removal of the courtyard and associated deposits, and the steps up to the courtyard. The live sewage pipe was replaced by temporary piping. At a later stage, when this pipe was made permanent, the excavation of a new trench into Baxtergate was observed and recorded (Trench 3: p. 42).

All plans and sections were originally drawn at 1:10 on site, and reproduced within this report at a scale of 1:20.

Finds from the excavation are at present stored at the offices of MAP Archaeological Consultancy Ltd, Malton but their ultimate destination for storage is Whitby Museum. The paper archive will be microfilmed by RCHME, and one copy of the microfiche will be deposited with the archive.

Note : Although the site boundaries and the excavation trenches and foundation trenches are not aligned directly to the cardinal compass points, for the sake of textual simplicity it has been assumed that the long property boundaries are aligned north–south with respect to the "site grid".

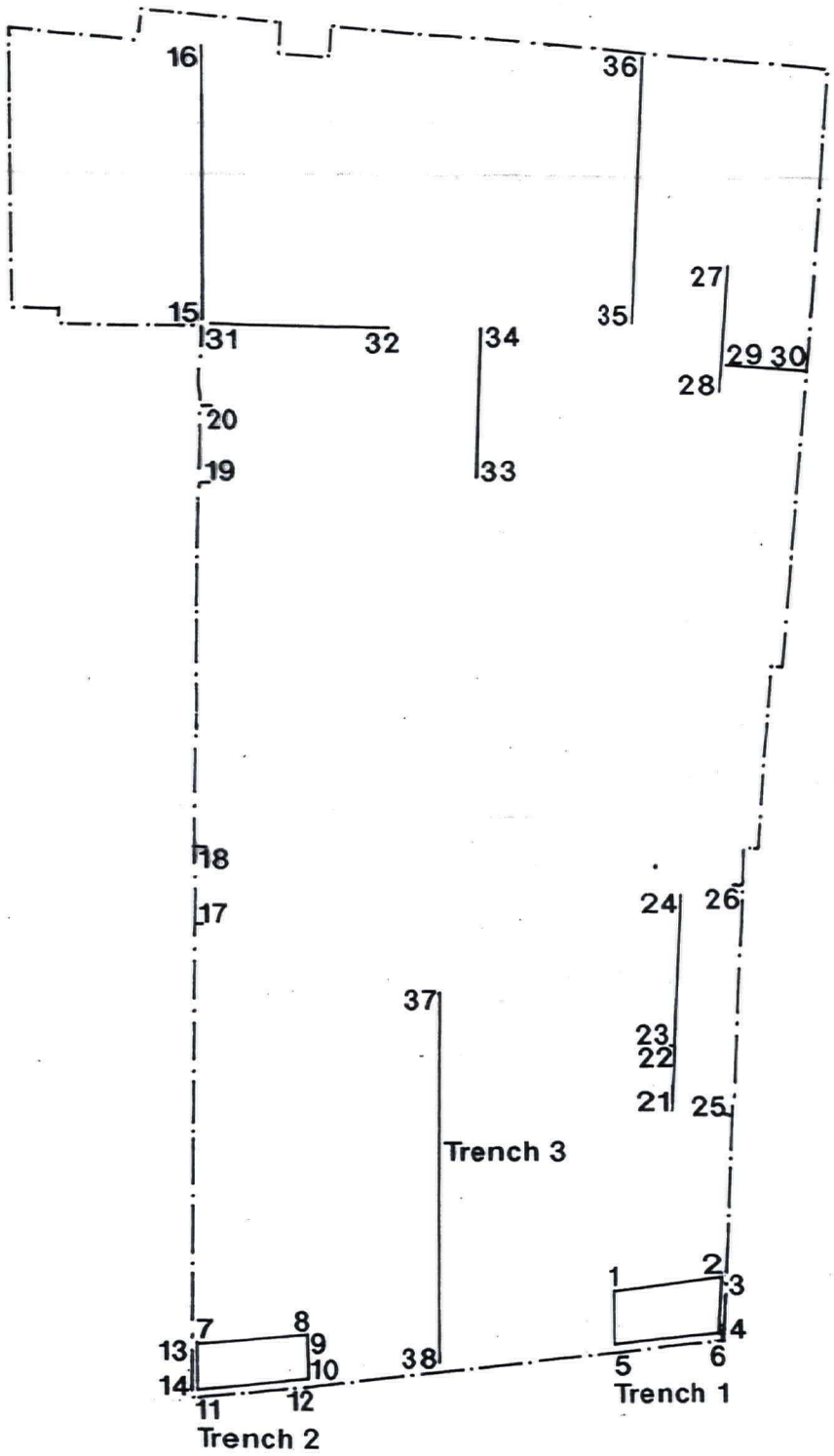
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Figure 2b

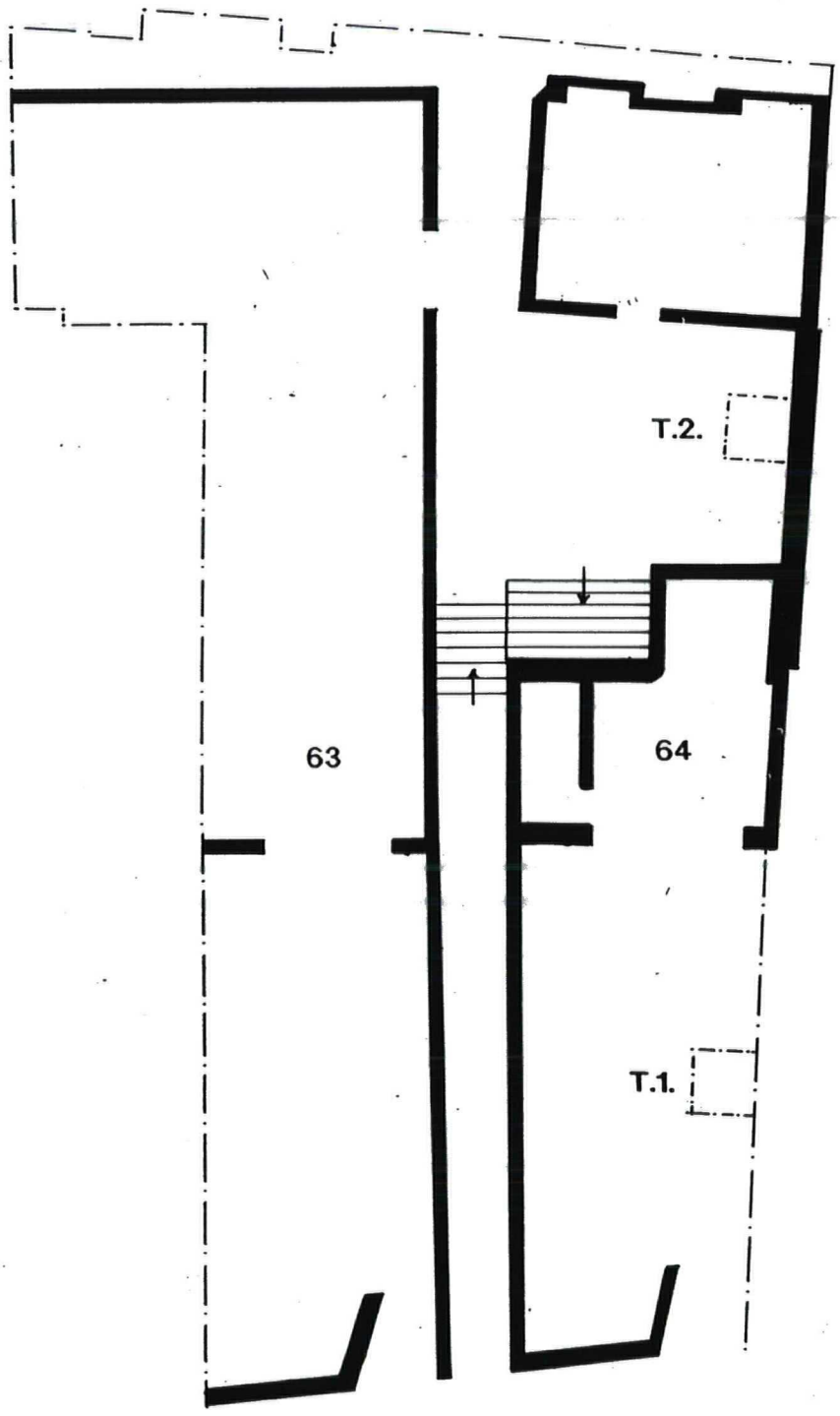

Figure 2a

3. Excavation Results

The results of the hand excavation in Trenches 1 and 2 is outlined below, and is followed by a detailed examination of the underpinning and foundation trench excavations.

Trench 1

Trench measured 2m by 1m and was cut to a depth of 1.95m. The purpose of this trench was to investigate the possible survival of archaeological deposits along the street frontage, and to provide dating evidence for any such deposits.

The trench was positioned approximately 0.2m to the north of the boundary between 63–64 Baxtergate and the street for safety reasons. In terms of its relationship to the demolished building, it was situated mainly in the doorway (which had been recessed) and within the front room of the former shop (Fig. 2a).

The tiled floor of the alleyway was removed (context 93) and the concrete floor of the shop (context 100). To the east was a brick wall (context 98) which formed the existing wall of Boots, 65–66 Baxtergate. To the west were the remains of the brick wall (context 96) and its foundations (context 95), also of brick, which were part of the demolished building. To the south was a linear band of sandstones (context 97) which extended beyond the limits of the trench in the south and would appear to represent the foundations for the demolished building (Fig. 3).

Once the latest floor levels had been removed the area was cleaned. Only a small remnant of the floor makeup for contexts 100 and 93 remained, this was a deposit of decayed mortar and sand (context 101). To the west was a deposit of silty sand with coal inclusions (context 102). This deposit sealed a dark silty loam (context 103) which in turn sealed a thick layer of compact clay (context 104). Further remnants for the bedding of the sandstone floor (context 99) survived in the west of the trench, consisting of a silty sand (context 105) and a sandy loam with mortar and brick flecks (context 107).

Removal of contexts 101, 105, and 106 (Fig. 4) illustrated that contexts 103 and 104 extended for much of the trench, with the exception of the extreme west where lenses of compact clay were located (context 107) and the extreme east where contexts 103 and 104 had been cut by a linear feature (cut 108, Figs. 4 & 30). This feature extended beyond the limits of the trench in both the north, south and east, and measured in excess of 0.46m in width. The fill was a medium – fine silty sand with occasional sandstone pieces (context 109). Cut 108 had been excavated to accommodate a gas pipe which extended for much of the eastern length of the site on a north–south alignment.

The general nature of context 103 suggested that this deposit could possibly be a floor deposit and the clay layer 104 below represented either the base for the floor or was a deliberately dumped layer used to seal contexts below.

An environmental sample was taken from context 103 (Appendix 7).

Once layers 103 and 104 were removed (Fig. 5), it became apparent that the gas pipe trench cut had cut into a further compact clay layer (context 112) which lay directly below 104 in the east of trench. In the centre and western portion a medium silty sand (context 113) and a dark silty loam with a large percentage (c. 90% charcoal) lay directly upon context 112. In the west context 111 rested directly upon context 112. Nowhere in the trench was it possible to ascertain whether context 111 sealed 113 or vice versa.

The general nature of these deposits would tend to suggest that 111 represented a floor deposit, or rather the remnants of one, and that context 113 may be seen as either part of the material used to seal the floor, or it may be the basal layer of the floor deposit, as it appears to rest on context 112.

Contexts 111, 112, and 113 were removed to reveal a further series of deposits which again were indicative of the remnants of floor surfaces and associated sealing deposits. Context 116 was a dark sandy silty loam which lay upon a deposit of compact clay with charcoal inclusions, some pieces of which were up to 5cm in length (context 117). Below 116 and above 117 was a deposit of silty sand (context 118). This deposit may represent the bedding layer for 116 (Fig. 6).

Finds from context 112 consisted of pottery dated to the 13th–14th century and shell, context 116 pottery dated to the 13th–14th century and animal bone (Appendices 2 & 3).

In the west of the trench (Fig. 6) excavation located the presence of two cuts (contexts 114 and 115). Cut 114 cut through 116 and part of 117 whereas cut 115 only cut through part of 117. Both cuts extended beyond the limits of the excavation, therefore it was impossible to determine their exact size, although both would appear to be in excess of 0.30m in diameter. Both cuts had originally been filled with context 112 – the layer which sealed floor deposit 116. This might suggest that as these cuts have no apparent surviving fills, they may have been used to house timbers, and that the timbers were removed prior to the laying down of 112.

Removal of layer 117 exposed contexts 119, 120, 121, 122, 123, 124 and 125 (Fig. 7). Context 119 – a silty sandy clay with small pieces of sandstone was only present in the eastern portion of the trench (Figs. 7 & 8). Excavation showed that context 123, a silty clay loam with charcoal, lay directly upon contexts 120 and 121, a mixed compact clay with no inclusions, and context 125, a dark silty clay loam with small lenses of clay and flecks of charcoal. Context 122, a dark silty loam with charcoal, partially sealed contexts 119 and 125 and was in turn sealed by contexts 120 and 121 (Figs 8 & 9).

Once floor 125 was removed, contexts 127, 128, 129, and context 130 were exposed (Fig 11). Contexts 127 and 129 were both dark silty loams with charcoal. Context 128 was a compact clay with occasional charcoal and context 130 was a silty sand with no inclusions. Considering that Floor deposit 125 sealed context 130 it is possible that context 130 is either the base of the makeup layer for 125, or that it is a levelling/sealing deposit for Floor deposit 129, as 130 sealed portions of 129 (Fig. 10). Context 127 lay directly upon context 128, as did context 129.

Finds from context 127 consisted of pottery dated to the 14th–15th century. Context 128, contained pottery dated to the 13th–14th century, and context 129, pottery dated to the 14th–15th century (Appendix 2 & 3).

An environmental sample was taken from context 129 (Appendix 7), suggesting occupation deposit.

As excavation proceeded, it became apparent that the sandstone slab in the eastern portion of the trench had been sealed by context 122 and its full size was 55cm by 40cm. This stone was also related to layers 128 and 129 (see below).

The removal of context 129 exposed layers 131, 132 and 133, all of which were later in date than context 128 (Fig. 12). Context 131 was a deposit of very hard baked/fired clay, whereas context 132 was a silty loam and context 133 a fine silty sand. Excavation showed that context 132 was only present around the upper limits of context 131 and that the lens of 131 to the north of the main deposit appeared to be a disturbed portion of the original deposit. Below 131 was context 133, again a hard baked clay with charcoal inclusions (Fig. 12). Above which (not on plan) had occurred a thin sealing layer of silty clay loam (context 134: Fig. 13). Context 133 was removed (Fig. 14) to define the full extent of the feature. It was clear that this feature, which was in excess of 0.7m in diameter, and continued into the section, had been cut into clay deposit 128. The nature of the fills, i.e. the hard baked clay, was indicative of a hearth (Feature 171). The position of the sandstone slab directly to the north and set immediately at the hearth's northern edge, suggests that this stone may have acted as a hearth stone when the hearth was in use.

Layer 128 was removed and it was found to have sealed a silty sandy clay with occasional cobbles, burnt wood up to 0.05m in length and small lenses of clay (context 138). In parts of the trench (Fig. 15) patches of a dark silty loam were visible (context 137) and in the north–western corner of the trench excavation located context 135, a dark silty loam, and context 136, a solid clay. Context 137 lay above 138 and in turn 138 sealed 136.

Finds from context 138 consisted of pottery dated to the 14th–15th century (Appendix 2 & 3).

An environmental sample was taken from context 138 (Appendix 7), suggesting Occupation deposit.

The nature of the deposits changed below 136. Up to this point in the excavation a continual sequence of floor deposits and sealing layers had been seen but at this level a silty clay deposit with ?daub and charcoal inclusions was located (context 140). To the west was a deposit of silty sandy loamy clay (context 141) and separating the two deposits was a linear feature composed of burnt and unburnt sandstone blocks and cobbles (context 142). On first impression it was considered that context 142 might represent a drain, but on further excavation (Fig. 16) this interpretation was seen to be inaccurate. There was no gully or lower level of stones to suggest that the feature was a drain; it was far too insubstantial to be considered a wall or a foundation for such a structure. Equally there was no evidence to suggest that it was the remnant of a stone floor. The limitations placed on the size of the excavation means that the interpretation of this feature must remain inconclusive.

Finds from context 140 consisted of pottery and iron objects (Appendix 2 & 3).

When 140 and 142 were removed (Figs. 16 & 17), it was seen that layer 141 continued to the east, where it butted up to context 143, a silty clay loam with charcoal and decayed daub. Context 143 sealed in part context 144, which was a silty clay.

These layers sealed contexts 145, 146, 147 and 148 (Fig. 18). Context 145, a pure silty fine sand, lay directly above context 146, a silty sandy clay with charcoal and small sandstone pebble inclusions. In turn 146 sealed 147, a dark silty clay loam with charcoal and shell inclusions. Considering the nature of these layers it would appear that 145 may represent the remnants of the basal layer for Floor 143 or that it was laid deliberately to seal Floor 147. Context 146, which seals 147 in the east and centre of the trench (Fig. 19), may either be part of the Floor 147 or again a deposit laid deliberately to seal it.

Finds from context 147 consisted of pottery dated to the 14th–15th century (Appendix 2 & 3: Fig. 52.4).

An environmental sample was taken from contexts 145 and 147 (Appendix 7).

In the west of the trench was a linear band of silty clay (context 148) which when cleaned produced evidence of two stakes (Figs. 19–21: Nos. 13 & 14).

When 148 was removed, it was seen to seal context 149, an inclusion free silty clay sand. This context was cut in the south–east of the trench by a semi–circular feature (Fig. 20: cut 151) which was filled with solid clay, context 150.

Below 147 and 149 were layers 152, 155 and 154 (Fig. 21). At this level it was apparent that context 148 was a deposit which sealed cut 157, and which appeared to have slumped into the cut. The subsequent fill was a silty sand with small pebbles and charcoal, context 154. Removal of 148 also exposed further stakes (Fig. 21: Nos. 16 & 17).

Finds from context 148 consisted of an animal bone knife handle. Context 154 produced a jet fragment (Appendix 2).

To the east of Cut 157 excavation showed that layer 155, a silty sandy clay with small sandstone inclusions, had a large number of in situ stakes or stakeholes set within it (Fig. 21). Further to the east, a single stake (no. 15) was associated with layer 152 (Fig. 21) a silty sand. This layer also sealed context 155, as did context 156, a sandy loam with charcoal inclusions.

As mentioned above, not all of the stakes were in situ, only the impression of Stake 1 being recovered. The remainder of the stakes were set into clay 155, and were recorded as follows:

Stake 2 – cut circular to a point and set into the clay to a depth of 10cm
Stake 3 – cut circular to a point and set into the clay to a depth of 10cm
Stake 4 – cut circular to a point and set into the clay to a depth of 4cm
Stake 5 – cut circular to a point and set into the clay to a depth of 14cm
Stake 6 – cut circular to a point and set into the clay to a depth of 10cm
Stake 7 – cut circular to a point and set into the clay to a depth of 12cm
Stake 8 – substantial stake, cut circular to a point and set into the clay to a depth of +12cm

Stake 9 – cut circular to a point and set into the clay to a depth of 11cm

Stake 10 – cut circular to a point and set into the clay to a depth of 10cm. Alder.

Stake 11 – cut circular to a point and set into the clay to a depth of 14cm

Stake 13 – cut to a point, sub–rectangular and set into the clay to a depth of 20cm

Stake 18 – cut circular to a point and set into the clay to a depth of 7cm. Alder.

Stake 19 – cut circular to a point and set in to the clay to a depth of 12cm, but only 2cm survived as wood, the reminder as a void

Stake 20 – substantial stake, cut circular to a point and set into the clay to a depth of +18cm

The remainder of the stakes were too badly preserved to record accurately (Appendix 6) and were not as deeply embedded as those recorded above. It was at this point that it was decided to continue the excavation by concentrating on a 1m portion of the trench at a time, due to the problems with water seepage (See P. 42).

Context 155 was removed to expose a very mixed layer of silty sandy clay with lenses of silty loam and occasional sandstone pebbles (Fig. 22: context 158), which had been disturbed by cut 157 in the south–east. Below 158 was again a mixed deposit of silty clay with a high concentration of charcoal (context 159) and intermixed with a silty clay with daub and slivers of wood and occasional small pebbles (context 160:Fig. 23).

Finds from context 158 consisted of pottery dated to the 14th–15th century and a wood fragment (Appendix 2 & 3).

This layer overlay context 161, a silty loamy clay with wood and charcoal inclusions (Fig. 24). In the south of the trench a layer of very silty clay with wood was also located (context 162).

Finds from context 161 consisted of pottery dated to the 14th–15th century (Appendix 2 & 3).

An environmental sample was taken from context 161 (Appendix 7).

Below these layers were contexts 163, a silty clay, and 164, also a silty clay with wood and charcoal inclusions. A curving band of sandstones occurred on the eastern margin of 163, at first appearing to be structural, perhaps relating the upper course of a well (Fig. 25). Investigation of this theory proved otherwise and it would seem that the stone formation was purely fortuitous.

Finds from context 163 consisted of a jet fragment (Appendix 2).

Below contexts 163 and 164 was a uniform deposit of silty clay with much organic matter (Fig. 26: context 165), immediately below this context was 166, a silty clay with many organic inclusions (Fig. 27).

Finds from context 165 consisted of pottery dated to the 14th–15th century and a leather offcut fragment (Appendix 2 & 3).

An environmental sample was taken from contexts 165, 166 and 167 (Appendix 7).

Excavation ceased with the exposure of context 169 (Fig. 29). It was unclear whether this deposit was of natural or of human creation. The problem with water seepage could not be resolved and

therefore no further hand excavation took place. During the excavation of the east foundation section a greater depth was achieved and it was observed that similar deposits continued to a much greater depth suggesting that the deposit, and those below, can be classed as natural on this part of the site.

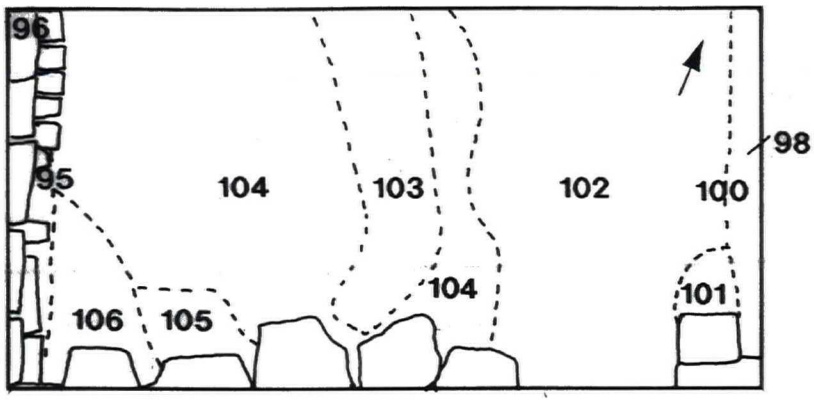

Figure 3

Trench 1. Contexts: 95 – brick footings; 96 – brick wall; 97 – sandstone floor; 98 – brick wall; 99 – sandstone slabs; 100 – concrete; 101 – pink silty sand; 102 – dark yellowish brown silty sand with coal; 103 – very dark brown silty loam with charcoal; 104 – dark yellowish brown clay; 105 – dark yellowish brown silty sand; 106 – brown sandy loam with mortar & brick flecks; 107 – yellowish red compact clay. Scale 1:20.

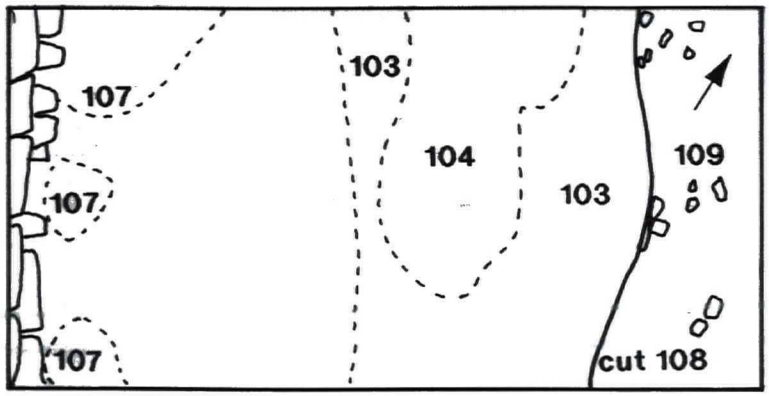

Figure 4.

Trench 1. Contexts: 103 – very dark brown silty loam with charcoal; 104 – dark yellowish brown clay; 107 – yellowish red compact clay; 108 – cut for shallow depression; 109 – dark greyish brown silty sand. Scale 1:20.

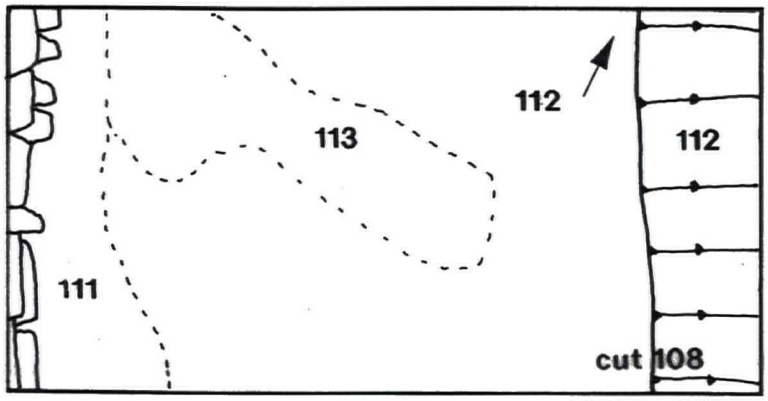

Figure 5.

Trench 1. Contexts: 110 – strong brown medium, plastic silty sand; 111 – black silty loam with 90% charcoal; 112 – strong brown compact clay; 113 – strong brown medium silty sand. Scale 1:20.

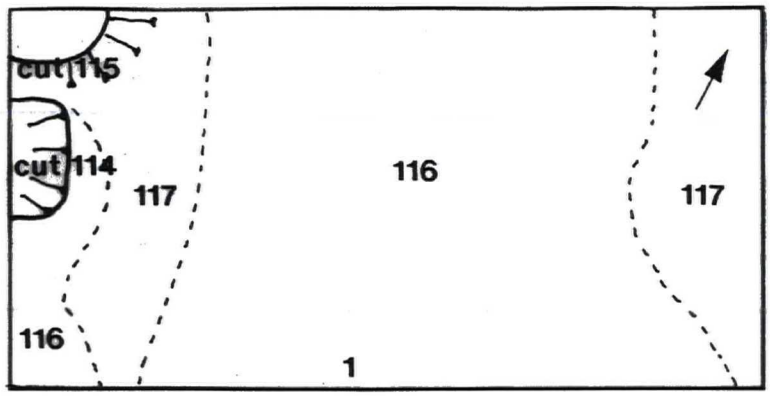

Figure 6.

Trench 1. Contexts: 114 – Cut; 115 – Cut; 116 – black plastic sandy silty loam; 117 – strong brown compact clay with charcoal & sandstone pieces; 118 – strong brown silty sand. Scale 1:20.

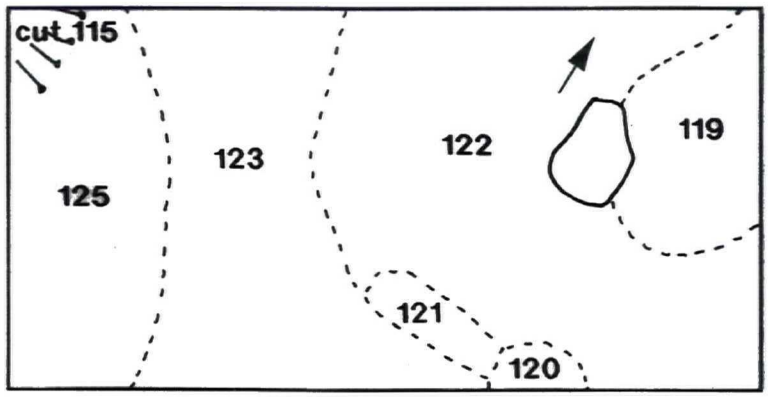

Figure 7.

Trench 1. Contexts: 115 – cut; 119 – dark yellowish brown plastic silty sandy clay with 50% sandstone pieces; 120 – strong brown compact clay; 121 – red compact clay; 122 – black silty loam with charcoal inclusions; 123 – black silty clay loam with charcoal inclusions; 124 – red silty sand with ?decayed brick; 125 – very dark brown silty clay loam with small clay deposit (as 120) & charcoal flecks. Scale 1:20.

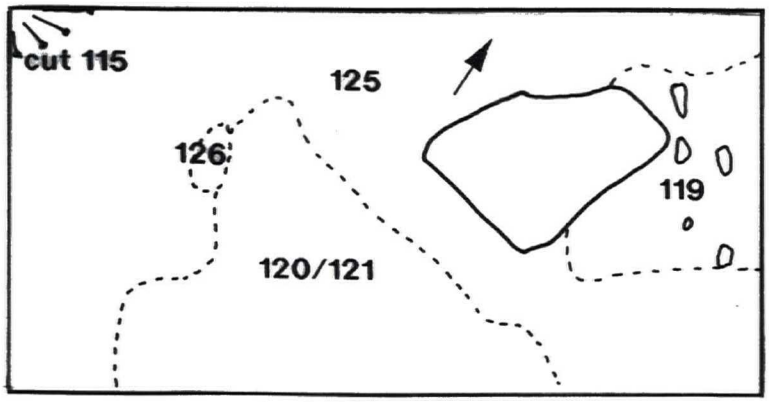

Figure 8.

Trench 1. Contexts: 115 – cut; 119 – dark yellowish brown plastic silty sandy clay with 50% sandstone pieces; 120 – strong brown compact clay; 125 – very dark brown silty clay loam with small clay deposit (as 120) & charcoal flecks; 126 – dark yellowish brown medium silty sand. Scale 1:20.

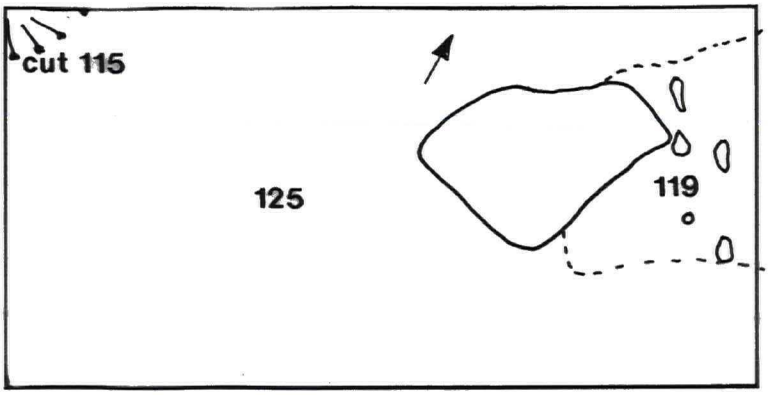

Figure 9.

Trench 1. Contexts: 115 – cut; 119 – dark yellowish brown plastic silty sandy clay with 50% sandstone pieces; 125 – very dark brown silty clay loam with small clay deposit (as 120) & charcoal flecks. Scale 1:20.

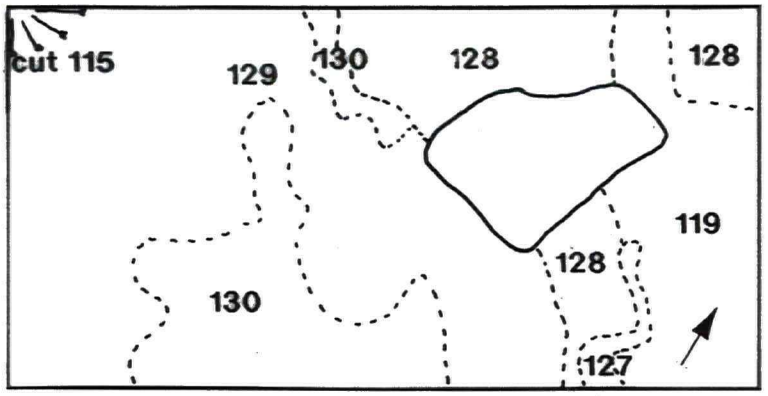

Figure 10.

Trench 1. Contexts: 115 – cut; 119 – dark yellowish brown plastic silty sandy clay with 50% sandstone pieces; 127 – black silty loam; 128 – brown compact clay with occasional sandstone pebbles, charcoal, wood slivers & shells; 129 – black plastic silty loam; 130 – strong brown friable silty sand with slight clay. Scale 1:20.

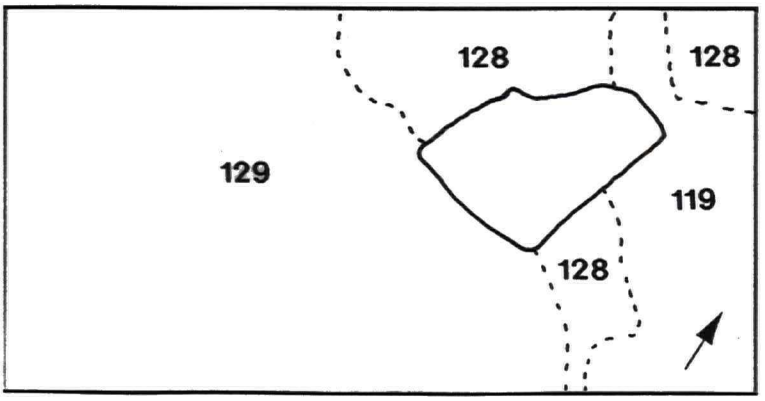

Figure 11.

Trench 1. Contexts: 115 – cut; 119 – dark yellowish brown plastic silty sandy clay with 50% sandstone pieces; 128 – brown compact clay with occasional sandstone pebbles, charcoal, wood slivers & shells; 129 – black plastic silty loam. Scale 1:20.

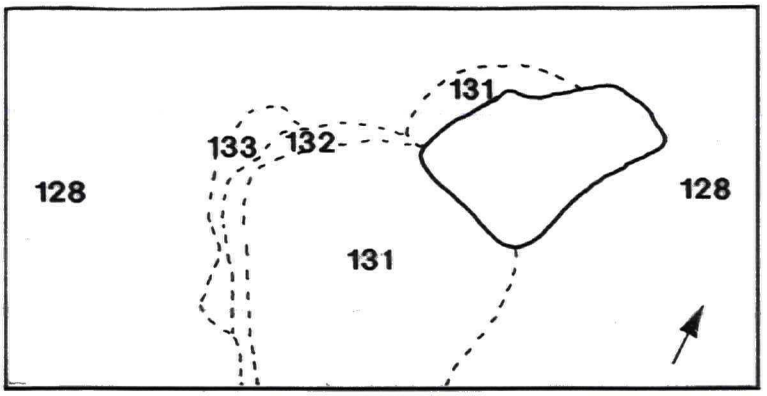

Figure 12.

Trench 1. Contexts: 115 – cut; 128 – brown compact clay with occasional sandstone pebbles, charcoal, wood slivers & shells; 131 – red very hard clay, also pale yellow silty plastic clay; 132 – dusky red silty loam; 133 – dark yellowish brown fine silty sand. Scale 1:20.

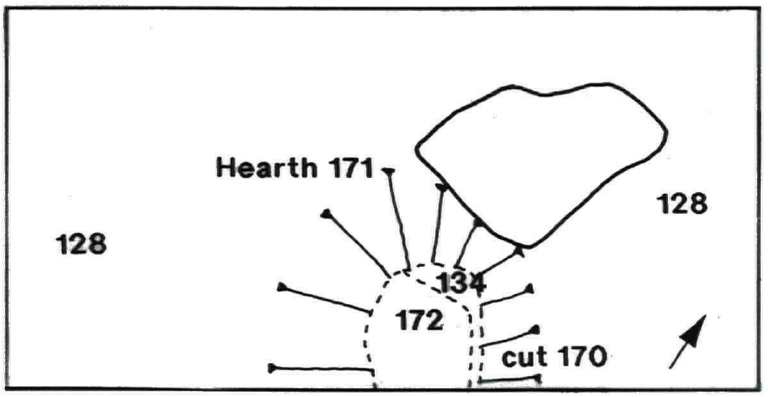

Figure 13.

Trench 1. Contexts: 128 – brown compact clay with occasional sandstone pebbles, charcoal, wood slivers & shells; 134 – dark reddish brown plastic, silty clay loam; 171 – hearth; 172 – dark yellowish brown fine silty sand. Scale 1:20.

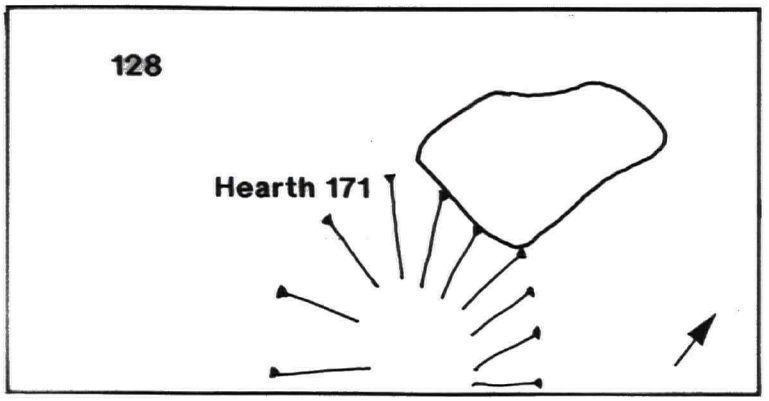

Figure 14.

Trench 1. Contexts: 128 – brown compact clay with occasional sandstone pebbles, charcoal, wood slivers & shells; 171 – hearth. Scale 1:20.

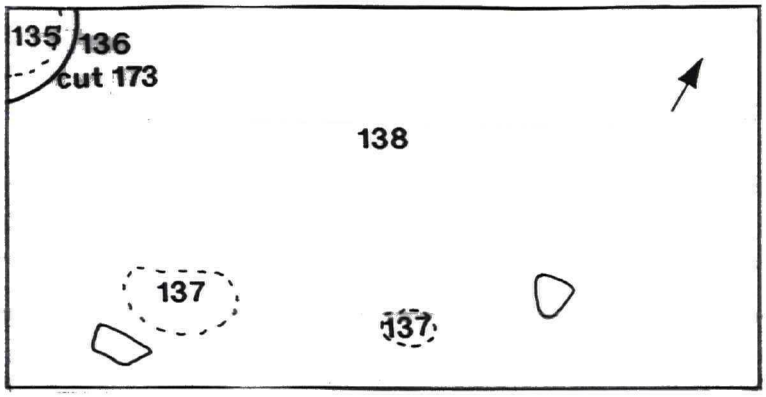

Figure 15.

Trench 1. Contexts: 135 – black silty loam with charcoal inclusions; 136 – yellowish brown compact clay; 137 – black silty loam.; 138 – brown plastic silty sandy clay loam with charcoal, sandstone cobbles, burnt wood & yellowish brown clay blades; 173 – cut. Scale 1:20.

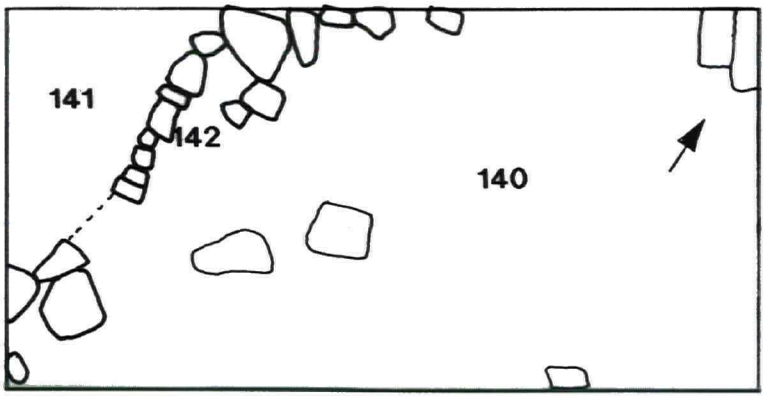

Figure 16.

Trench 1. Contexts: 140 – brown silty clay with charcoal & ?daub inclusions; 141 – very dark greyish brown silty sandy clay loam with 40% charcoal; 142 – stones of possible drain. Scale 1:20.

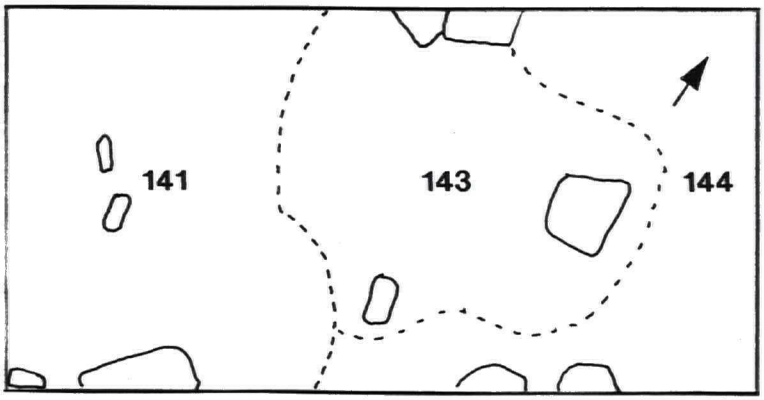

Figure 17.

Trench 1. Contexts: 141 – very dark greyish brown silty sandy clay loam with 40% charcoal; 143 – strong brown silty clay loam with charcoal & decayed daub; 144 – dark yellowish brown silty clay with corrosion products (iron pan). Scale 1:20.

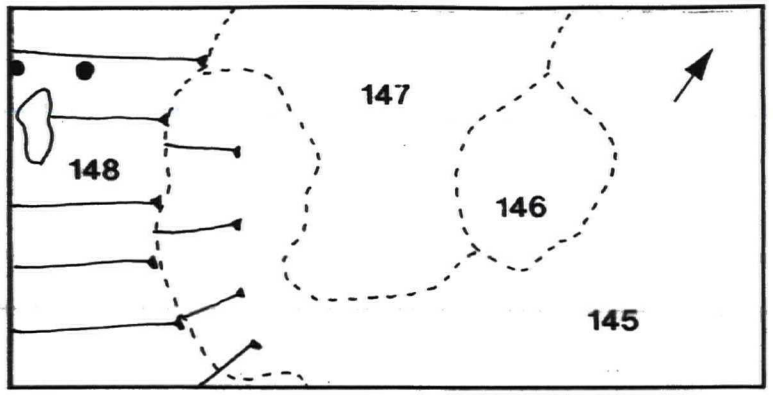

Figure 18.

Trench 1. Contexts: 144 – dark yellowish brown silty clay with corrosion products (iron pan); 145 – dark yellowish brown fine silty sand; 146 – brown silty sandy clay with charcoal & small sandstone inclusions; 147 – black silty sandy loam with charcoal & shells; 148 – dark brown silty clay. Scale 1:20.

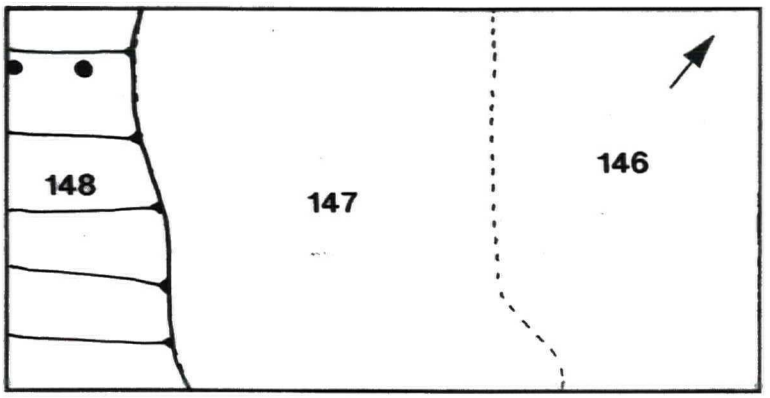

Figure 19.

Trench 1. Contexts: 146 – brown silty sandy clay with charcoal & small sandstone inclusions; 147 – black silty sandy loam with charcoal & shells; 149 – brown compact clay. Scale 1:20.

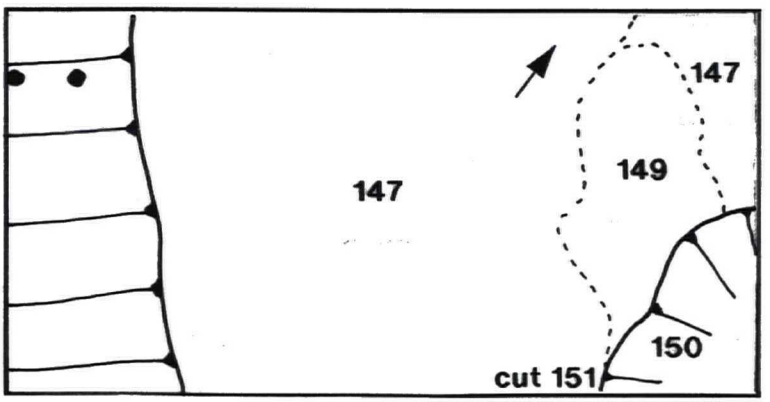

Figure 20.

Trench 1. Contexts: 147 – black silty sandy loam with charcoal & shells; 148 – dark brown silty clay; 149 – very pale brown silty clay sand; 150 – brown compact clay with very dark brown silty clay; 151 – cut for 150; 152 – red compact silty sand. Scale 1:20.

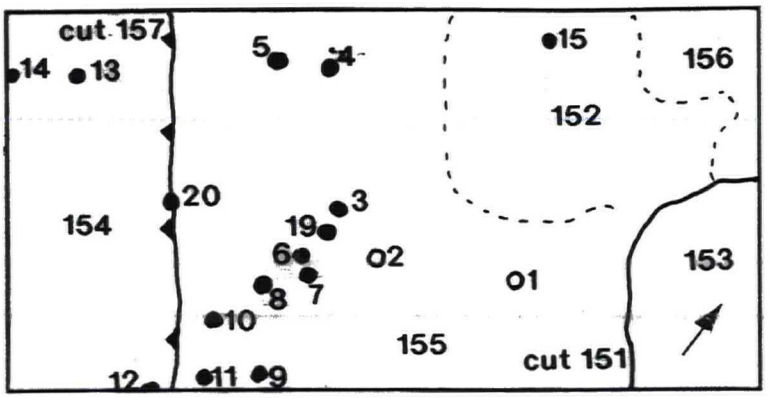

Figure 21.

Trench 1. Contexts: 152 – red compact silty sand; 153 – dark brown compact silty clay; 154 – brown fill of cut 157, silty sand with charcoal & small pebbles; 155 – brown silty sandy clay with sandstone inclusions; 156 – dark brown sandy loam with charcoal inclusions; 157 – cut. Scale 1:20.

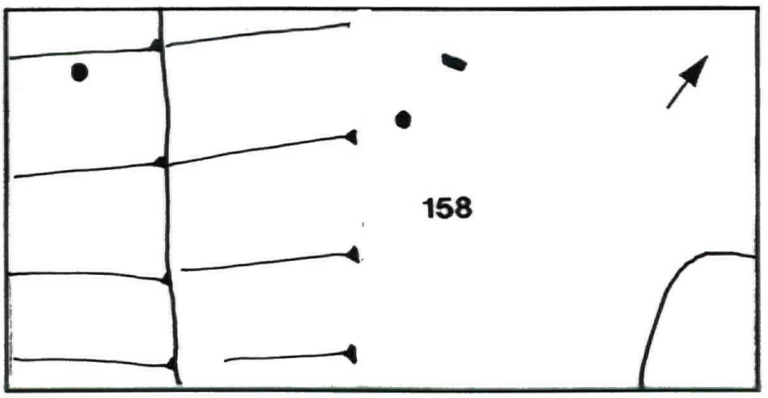

Figure 22.

Trench 1. Contexts: 153 – dark brown compact silty clay; 155 – brown silty sandy clay; 157 – cut; 158 – dark brown mixed layer of silty loam & silty sandy clay with occasional pebbles. Scale 1:20.

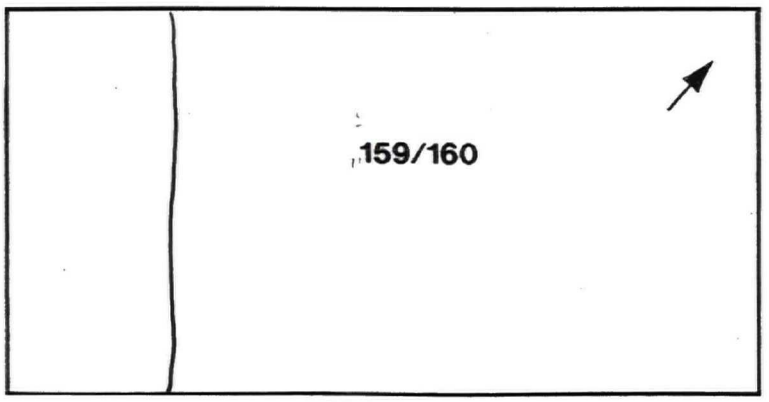

Figure 23.

Trench 1. Contexts: 159 – very dark grey silty clay with charcoal; 160 – dark yellowish brown clay with charcoal, burnt daub, occasional stone & slivers of wood. Scale 1:20.

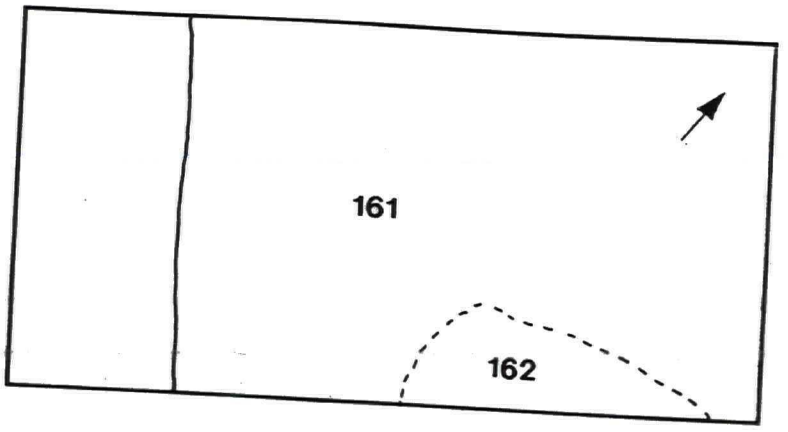

Figure 24.

Trench 1. Contexts: 161 – very dark grey silty loam clay with charcoal & wood; 162 – dark brown very silty clay with wood. Scale 1:20.

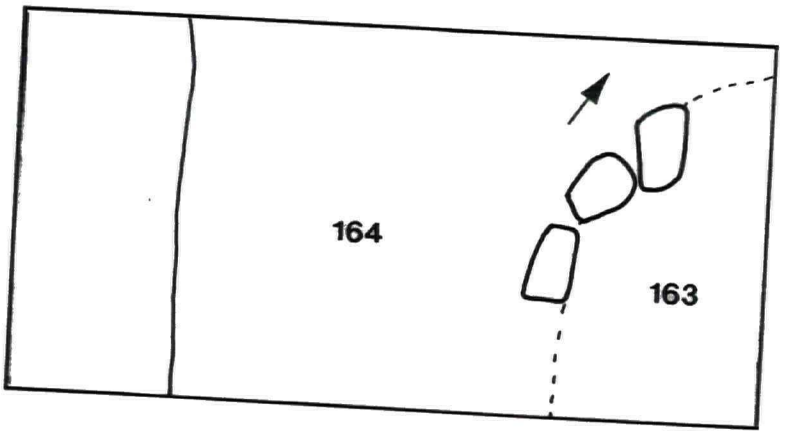

Figure 25.

Trench 1. Contexts: 163 – very dark grey silty clay with wood charcoal; 164 – very similar to 163. Scale 1:20.

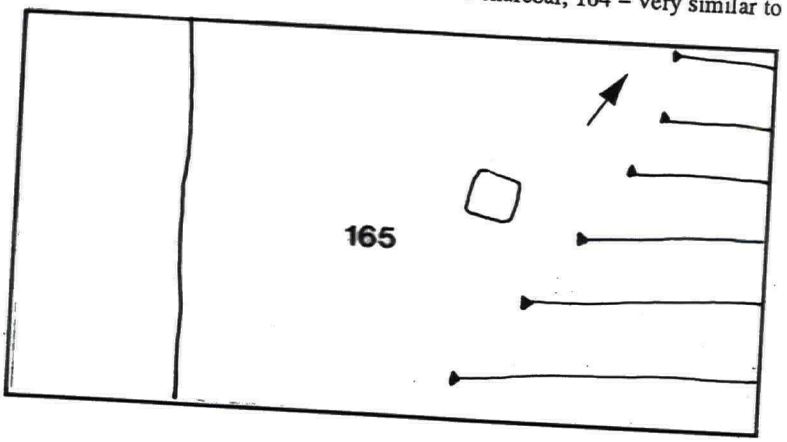

Figure 26.

Trench 1. Context: 165 – brown compact/plastic silty clay with organic remains. Scale 1:20.

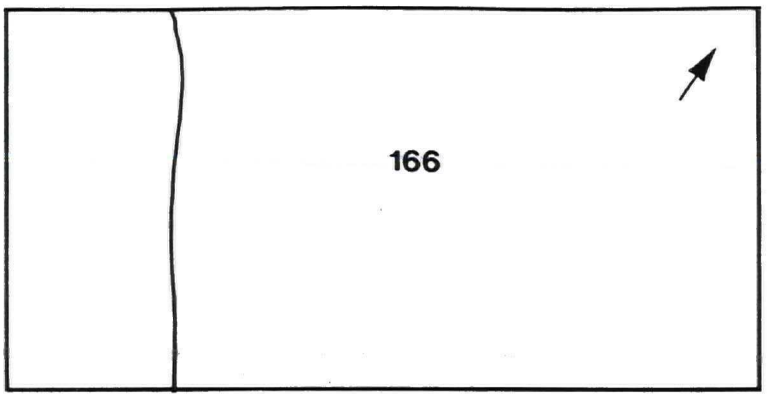

Figure 27.

Trench 1. Context: 166 – very dark grey silty clay with 90% organic remains & occasional pebbles. Scale 1:20.

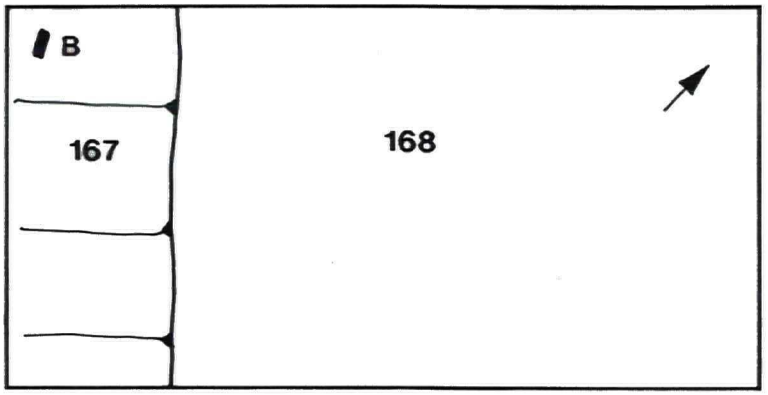

Figure 28.

Trench 1. Context: 158 – dark brown mixed layer of silty loam & silty sandy clay with occasional pebbles; 167 – very dark grey silty clay with 50% organic material; 168 – brown clay deposit with gravel inclusions; 169 – black silty sandy loam with organic material. Scale 1:20.

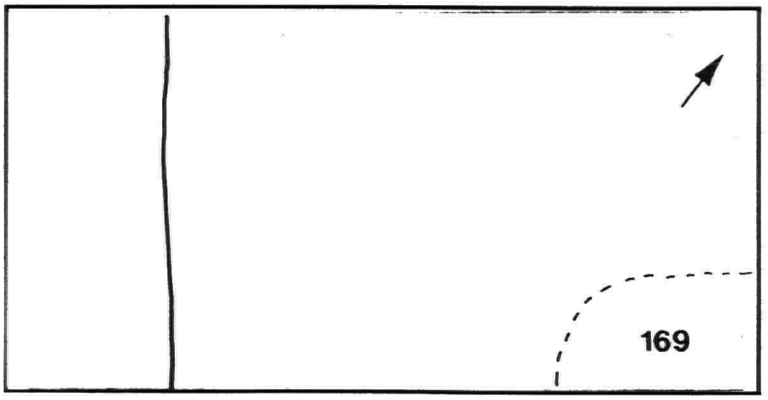

Figure 29.

Trench 1. Context: 169 – black silty sandy loam with organic material. Scale 1:20.

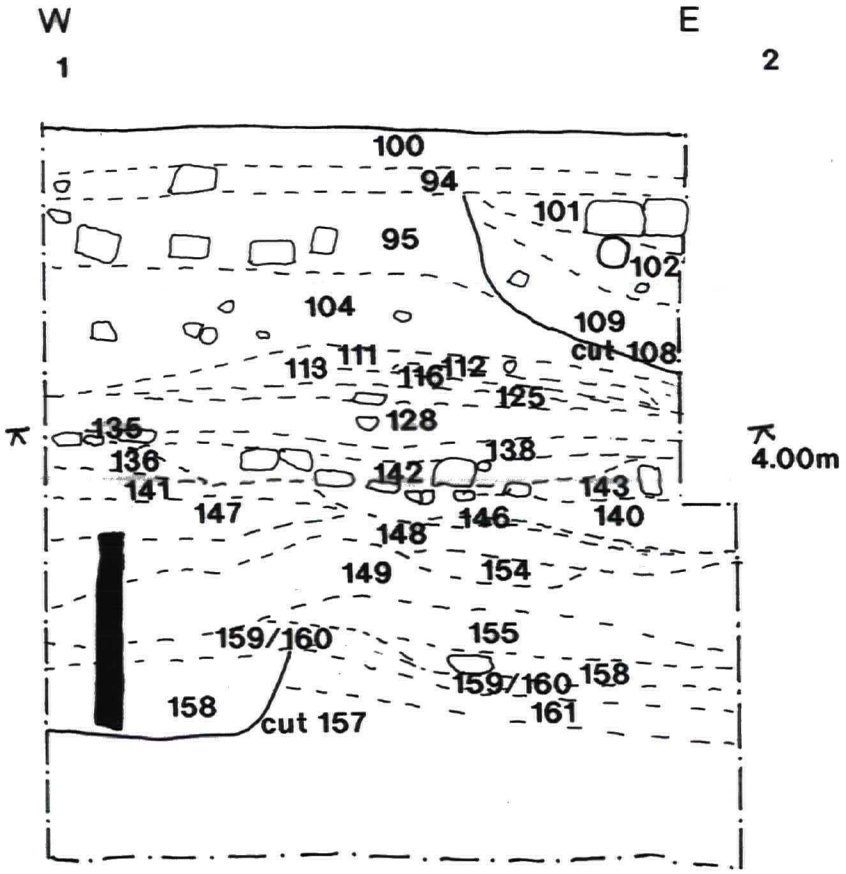

Figure 30

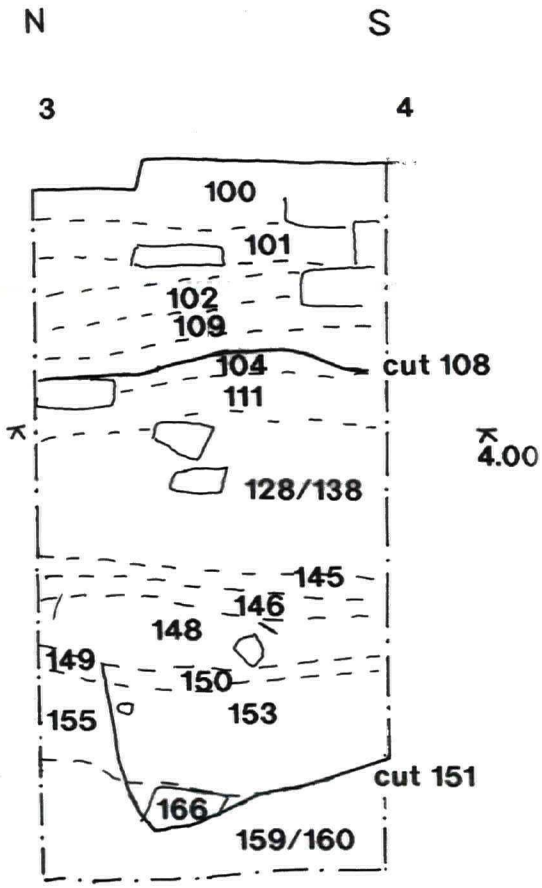

Figure 31

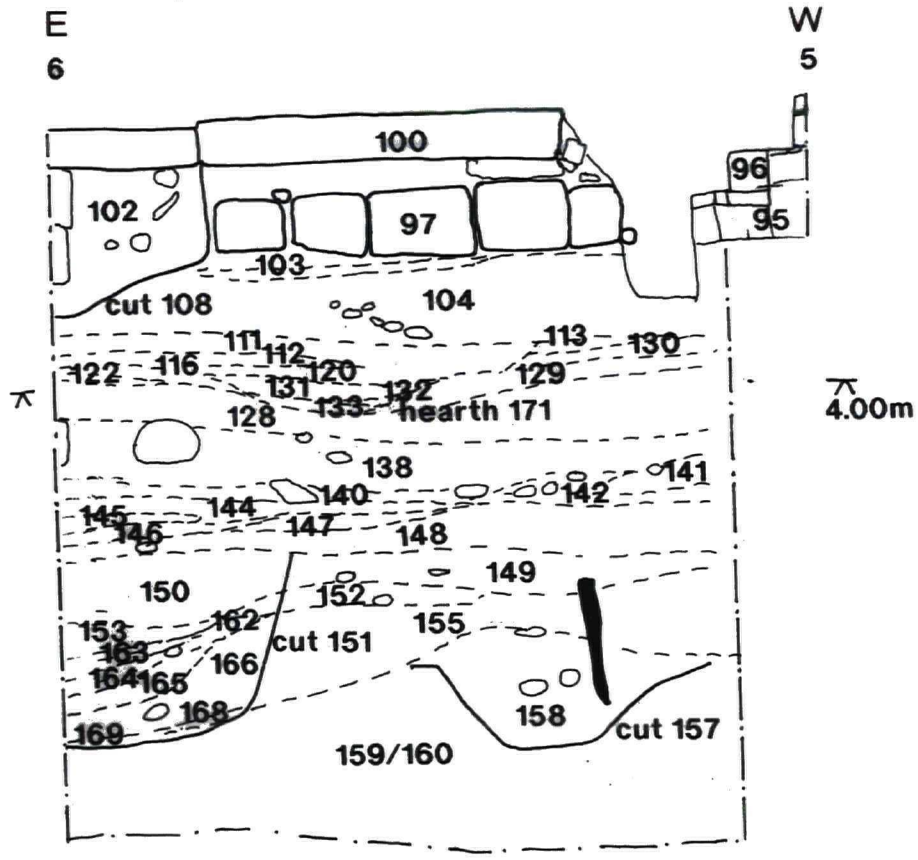

Figure 32

Scale 1:20

Trench 2

Trench 2 measured 2m by 1m and was excavated to a depth of 1.2m. It was situated at the south-west corner of the site, with its longest axis along the Baxtergate frontage (Fig. 2b).

Below the demolished building's tiled floor (context 200), concrete (context 201) and hard core base (context 202), excavation located a well constructed sandstone slab floor (context 203, Fig. 33). The floor was laid on a bedding layer of sand (context 204).

Finds from context 204 consisted of pottery dated to the 19th–20th century and glass (Appendix 2 & 3).

Context 207 (Figs. 33–36) was exposed with the removal of context 202, 203 and 204, and represented the sandstone foundation of the recently demolished building at 63–64 Baxtergate.

Below 204 was layer 205, a thick deposit of silty sandy loam with brick, sandstone and mortar inclusions. 205 sealed context 206 (Figs. 34 & 36), a silty clay loam with only occasional brick and sandstone inclusions; it was also noted that this layer also contained random lenses of burnt material.

Finds from context 205 consisted of pottery dated to c. 1700, brick and tile, animal bone, glass and an iron object. Context 206 contained pottery dated to the 14th–15th century, brick and tile, stone, animal bone and glass (Appendix 2 & 3).

An environmental sample was taken from context 206 (Appendix 7).

Within 206 was a slight sandstone structure, context 208 (Figs. 34 & 36), possibly the remains of a wall or a floor. Another sandstone structure abutted this, context 209 (Fig. 34).

Finds from context 209 consisted of pottery (Appendix 2 & 3).

Context 206 sealed context 210 (Figs. 35 & 36), another well constructed sandstone slab floor, which in turn sealed context 212, a compact clay with charcoal inclusions (Fig. 36). Waterlogging at this point made further excavation difficult.

Context 211 (Figs. 34–7) was present as a cut in Floor 210, and possibly related to the construction of the building formerly occupying 63–64 Baxtergate.

Finds from context 210 consisted of pottery dated to the 14th–15th century and an iron object (Appendix 2).

Below 212, natural was encountered on the western and central portions of the site. It was the belief of the excavator of Trench 2 that context 210 represents a cellar floor and that contexts 206 and 205 were attempts to backfill the feature. After backfilling the new floor, context 203 could be laid. This was in turn superseded by the concrete floor, and finally the tiled floor.

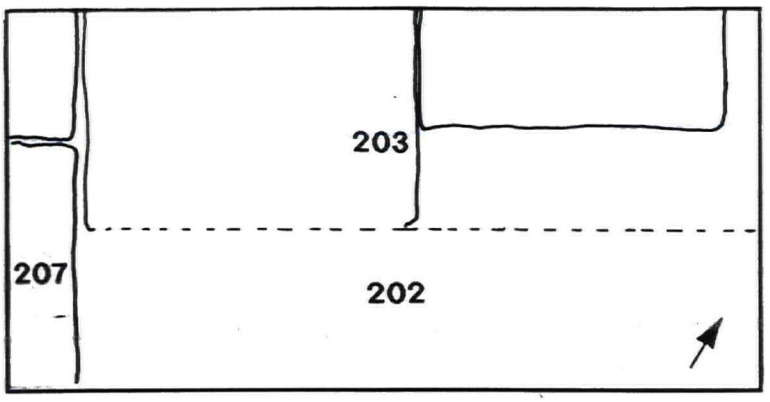

Figure 33.

Trench 2. Contexts: 202 – brick & concrete rubble; 203 – sandstone slab floor; 204 – yellowish brown sand; 207 – sandstone footings. Scale 1:20.

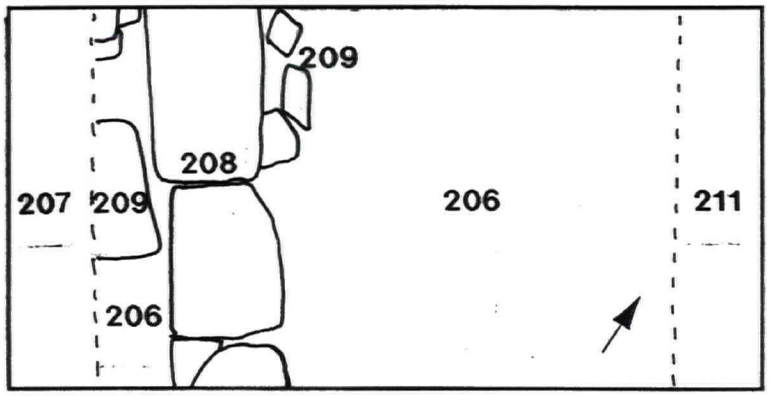

Figure 34.

Trench 2. Contexts: 206 – dark yellowish brown silty clay loam with occasional brick, sandstone inclusions & lens of burnt material noted; 207 – sandstone footings; 208 – remains of sandstone floor/wall; 209 – sandstone structure abutting 208. Scale 1:20.

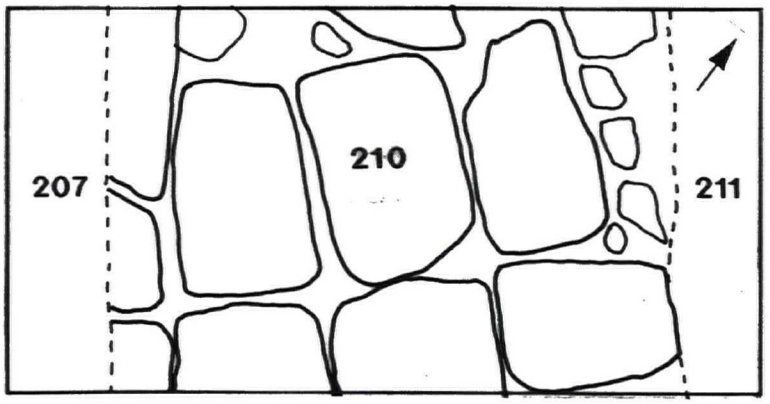

Figure 35.

Trench 2. Contexts: 210 – sandstone slab floor; 211 – sandstone footings for building. Scale 1:20.

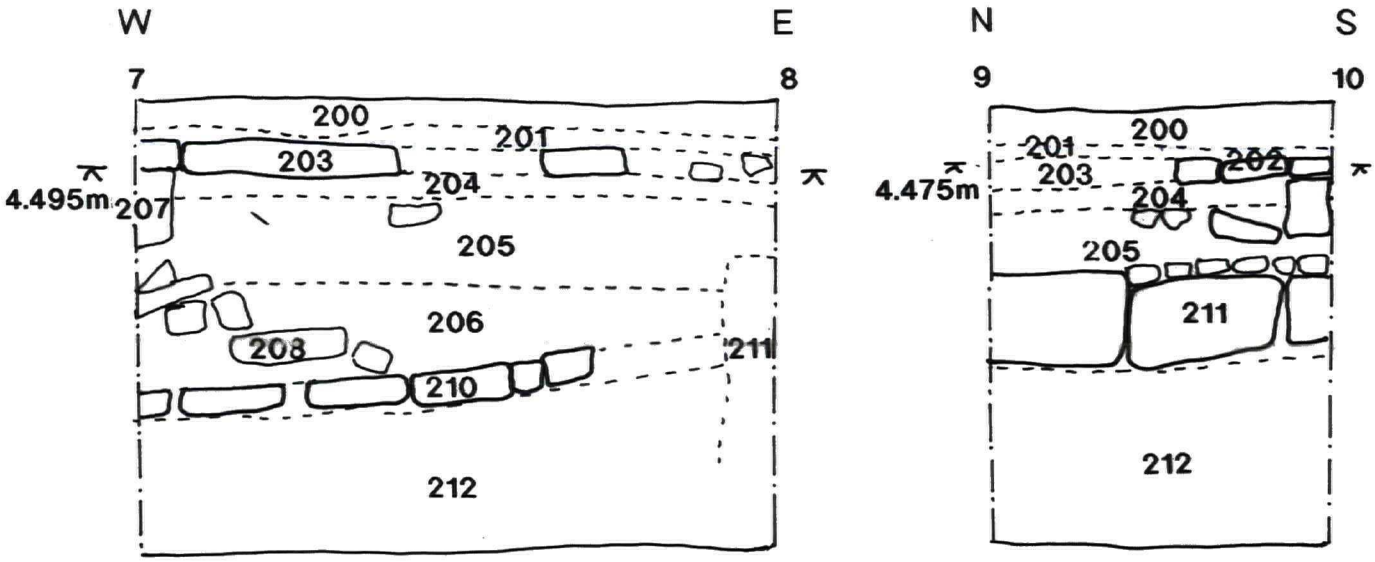

Figure 36 Scale 1:20

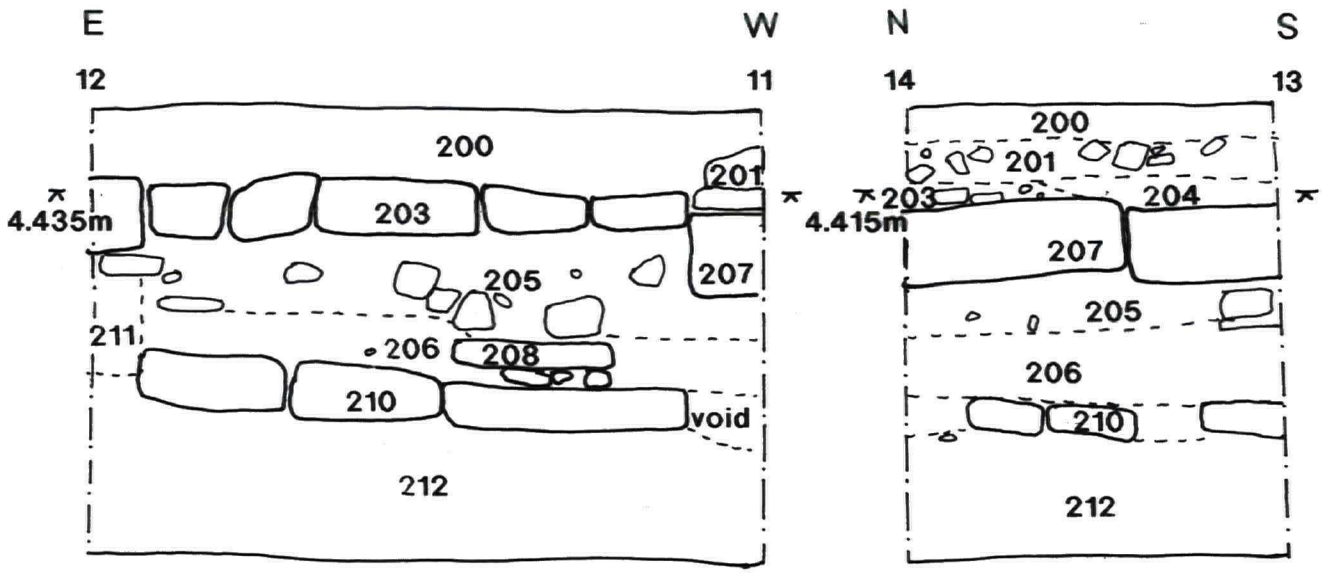

Figure 37 Scale 1:20

The Foundations

As mentioned above (p. 5), most of the west foundation, and all of the north foundation of the new building were dug as underpinning sections, which did not permit the drawing of continuous sections. The east foundation provided a continuous section for 15m.

The West Foundation

The west foundation extended for approximately 26m and was cut to a depth varying from 4m to 1m. The stratigraphy of this part of the site will be considered from North to South.

The extreme north of the foundation starts with the stone retaining wall which ran for the length of the east west axis at the back of the site. The northern part of the site was substantially higher than the street frontage (Fig. 2b, point 16).

Section 15–16 (Fig. 38) runs from the north–eastern corner of the Church to the stone facade. It shows quite clearly that below the concrete (Context 3), and its broken brick hard–core (context 4), was a substantial deposit of silty clay loam (context 7) and a clay loam with coal and pebbles (context 9), which were divided by a layer of clay loam with a high occurrence of coal (context 8). Context 9 directly sealed a clay loam with coal and pebbles (context 10); below this was a substantial deposit of clay with a little charcoal (context 11) and below this another substantial deposit of solid clay with no inclusions (context 12).

Contexts 9, 10 and 11 had all been cut by a drainage pipe trench (cut 5) which was filled with a very loose fill of silty clay with pebbles, brick and large sandstone blocks (context 6). The drainage pipe had been redundant for quite a long time due to the level of silt within the pipe.

Section 15–16 ceased c. 1m from the stone buttress, and when this section was excavated it indicated that layers 11 and 12 continued to rise sharply to a point where the stones rested directly on context 11.

This section, in association with sections 31–32 and 33–34, shows that the nature of the deposits was indicative of general occupation and natural accumulation with no specific evidence of industrial activities or structural occupation, with the exception of the buildings attributed to the latest demolished buildings at the site.

To the south of this section (Fig. 39), underpinning sections continued to show the gentle incline of natural deposits towards the street frontage, they also indicated the nature of the deposits on which the Church was constructed.

Excavation showed that the Church foundations (context 15: Fig. 40) were constructed on only two courses of sandstone blocks intermixed with silty clay and charcoal flecks (context 28), and which were set directly onto a fine silty sand (context 29). Below this deposit was a thick deposit of silty clay loam with many charcoal inclusions (context 50).

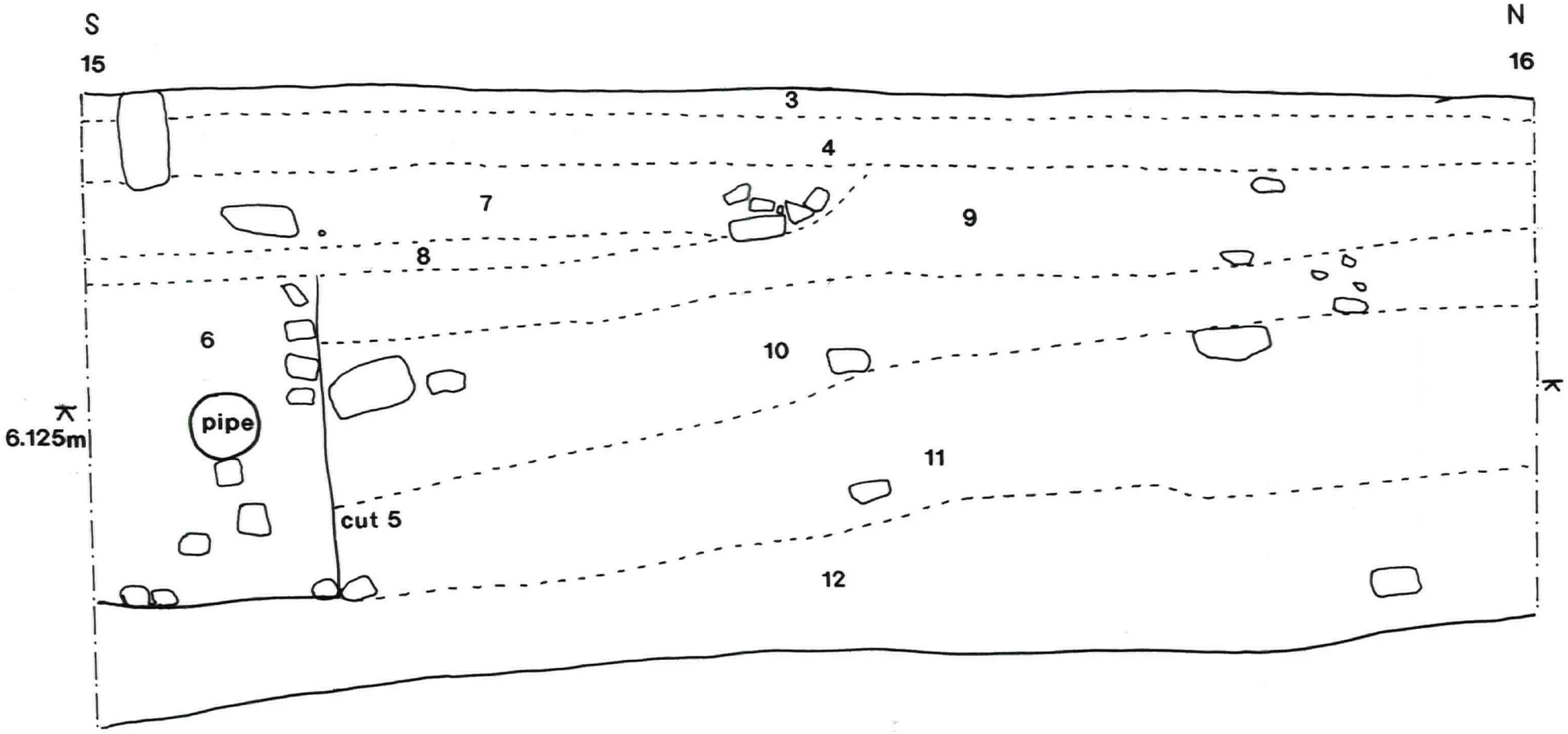

Figure 38

Scale 1:20

Although no evidence for floor layers similar to those seen in the east of the site were located, one section of the underpinning (Fig. 40) located a line of sandstones, context 30, which were sealed by context 50, but laying below the area occupied by the Church. The stone, which gave the impression of being an insubstantial wall, was only seen for a short length, i.e. 0.7m, and was seen to have been built directly onto natural deposits (context 11/26).

Based on the evidence from the excavation of the western foundation, one must conclude that the western portion of the site has a totally different history to that of the east and central portions. The sections indicate that above natural deposits are a number of build-up deposits, which are only affected by direct human intervention by the building of the Church, and earlier developments illustrated by the sandstone linear feature, context 30. The latter was seen to continue under the Church, and hence could not be investigated further.

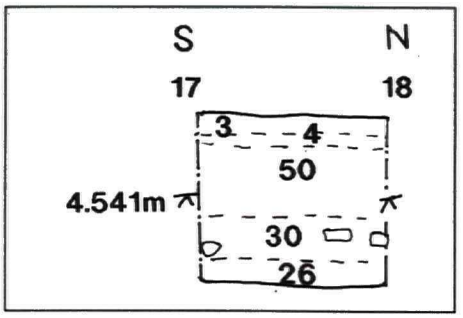

Figure 39

Scale 1:20

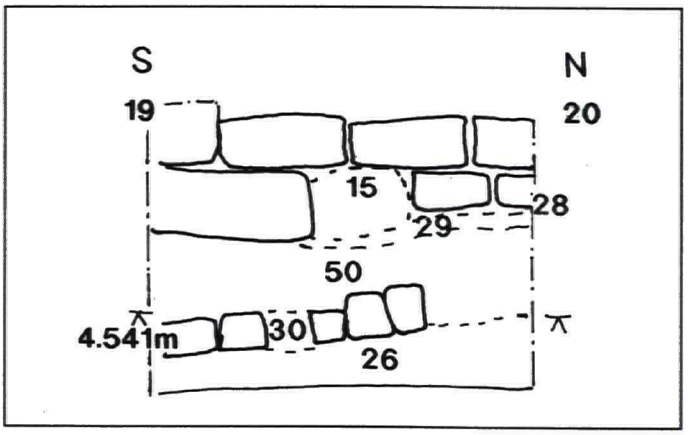

Figure 40

Scale 1:20

The North Foundation

As mentioned above, the north foundation was a series of underpinning sections, and in this respect provided no great amount of information on the development of the site, except for the fact that the stone facade had been constructed directly onto natural. The wall was only a single course in thickness, with a void at the back which was infilled with rubble, making the whole feature unstable when underpinning was instigated.

The underpinning excavations also showed that recent post medieval deposits butted up to the wall, and a modern drain effected these deposits.

Perhaps the most interesting factor observed in the north of the site was the occurrence within the natural clay of huge sandstone boulders which proved very difficult to break, and even more so to remove from the site. In underpinning section A2 one such boulder was observed to be set into the natural clay but also to have deposits of silty clay with charcoal around, covering and under the stone (Context 10). This may be a possible explanation why the back of the site was not occupied to the same degree as the street frontage.

The stone facade is a relatively recent construction, approximately 18th century. It would appear that the cliff face was considered unstable and required support. The association of context 10 with the boulder, implies that the cliff was also unstable for a considerable time prior to the building of the retaining wall.

A further interesting point is that the building constructed at the north-east corner of the site, demolished in 1992, had its back wall as revetment for the cliff. The stone revetment did not continue to the east, but the stone of the retaining wall was not dissimilar to that used in the construction of the retaining wall for the courtyard.

The East Foundation

This foundation ran along the boundary of 64 Baxtergate and the building owned by Boots the Chemist. Sections were recorded from both the east and west sides of the strip foundation. The foundation was excavated to a depth of between 2m in the south to only 0.6m in the north. This variance in depth was due to the severe variation in the depth of natural clay on the site.

The section recorded 0.5m from the south facing section of Trench 1, (Fig. 41: 21–22) mirrored the stratigraphy seen in Trench 1, showing a succession of floor/occupation deposits sealed by clay dumps (contexts 56–66). Above the latest clay layer was a thick deposit of sand and mortar which equates to the makeup layers for the floors associated to 64 Baxtergate.

The next section to be recorded was that of Testhole 1 (Fig. 42: 23–24) which clearly indicates the difference in the stratigraphy. There are no longer the succession of floor/occupation deposits seen in the south, but a sequence of deposits more akin to natural accumulation than occupation build-up. This sequence is seen to continue to the north where all the deposits (contexts 47, 49, 51, 50, 52, and 54) rise gradually to the north, before becoming very shallow at a point 15m from the present day street frontage.

The west facing section (Fig. 43, 25–26) indicated that 65 Baxtergate had been built onto a foundation of sandstone blocks (context 72) with a much more irregular basal course (context 73). Below the foundations was a thick deposit of silty clay (context 50), which in turn sealed context 52, a clayey silt. The basal layer seen in this section was a clay (context 54). At the south of the trench a lighter band of silty clay was seen (context 70), which sealed a thin band of clayey silt with wood fragments (context 71).

Pottery from this area of the site comes mainly from context 50, which can be dated to the 13th–15th centuries. This date is comparable with the occupation of the site as seen by contexts in Trenches 1 and 3.

During the excavation of the foundation, at a point approximately 1m to the north of Testhole 1, three timbers were located all set into context 54. It was at first thought that these timbers may have formed either the back wall of a building or have acted as a revetment separating the occupation areas from the unoccupied land to the rear. The timbers were sent for analysis by YAT and the results conclude that the timbers were in fact felled trees, and that these timbers are in fact the remains of rotted tree trunks which had most probably rotted in situ. This piece of information tends to confirm that only the extreme south-eastern and central portion of the site were intensively occupied in the medieval period i.e. the 14th–15th centuries.

The clearance of the east side of the site revealed a capped well, north of Testhole 2. The capping was half sectioned to reveal a post medieval sandstone well. The west and south facing sections (Fig. 44) show that the well was sealed by the modern concrete (context 3) and hard core base (context 4) of the courtyard associated to the demolished 64 Baxtergate and that below these levels were various dump deposits (contexts 74, 75, 76, 77 and 78). The lowest of these dumps seals natural deposits

(context 11). The dump layers were deposited to both cover the well after capping and also to raise the ground level in this area of the site to facilitate the construction of the courtyard (Fig. 2). The upper fills of the well were removed to provide dating evidence (contexts 79, 80 and 81). Pottery of post-medieval date, animal bone, shell, glass and clay pipe were located.

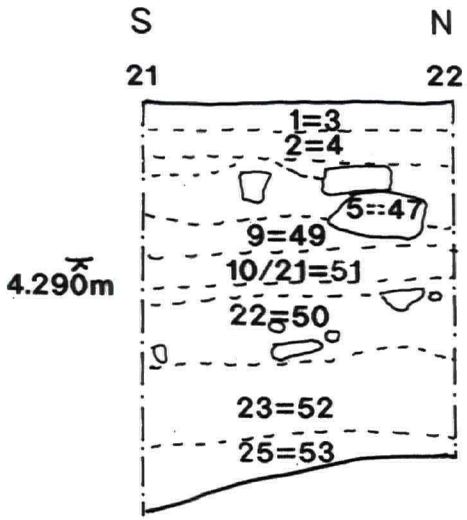

Figure 41

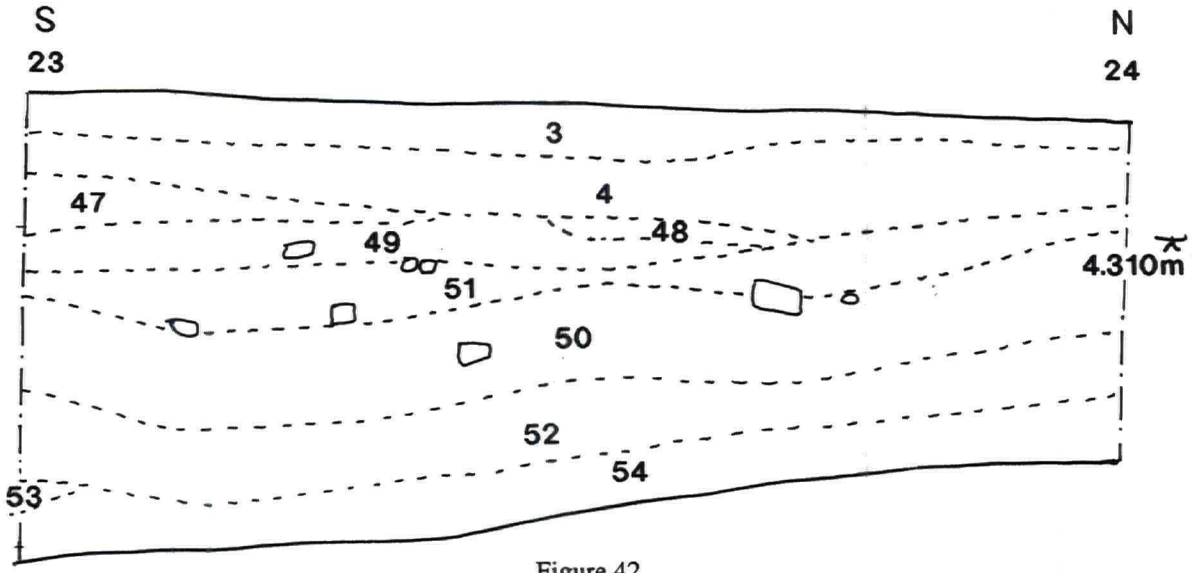

Figure 42

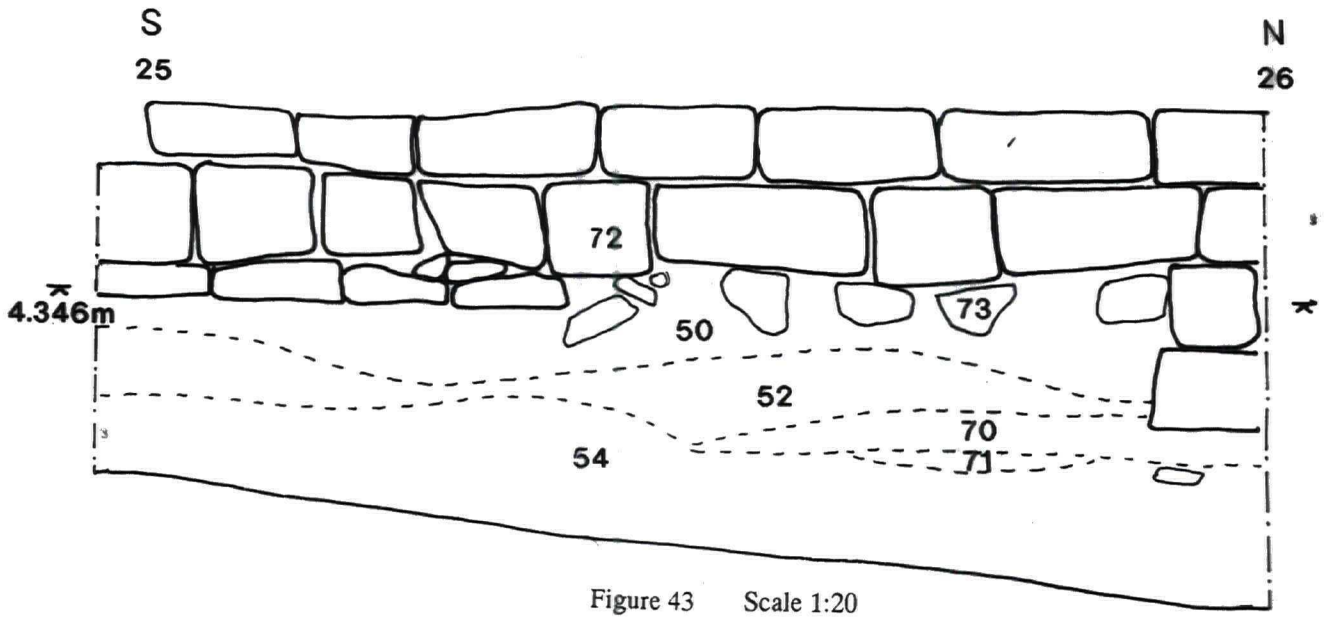

Figure 43 Scale 1:20

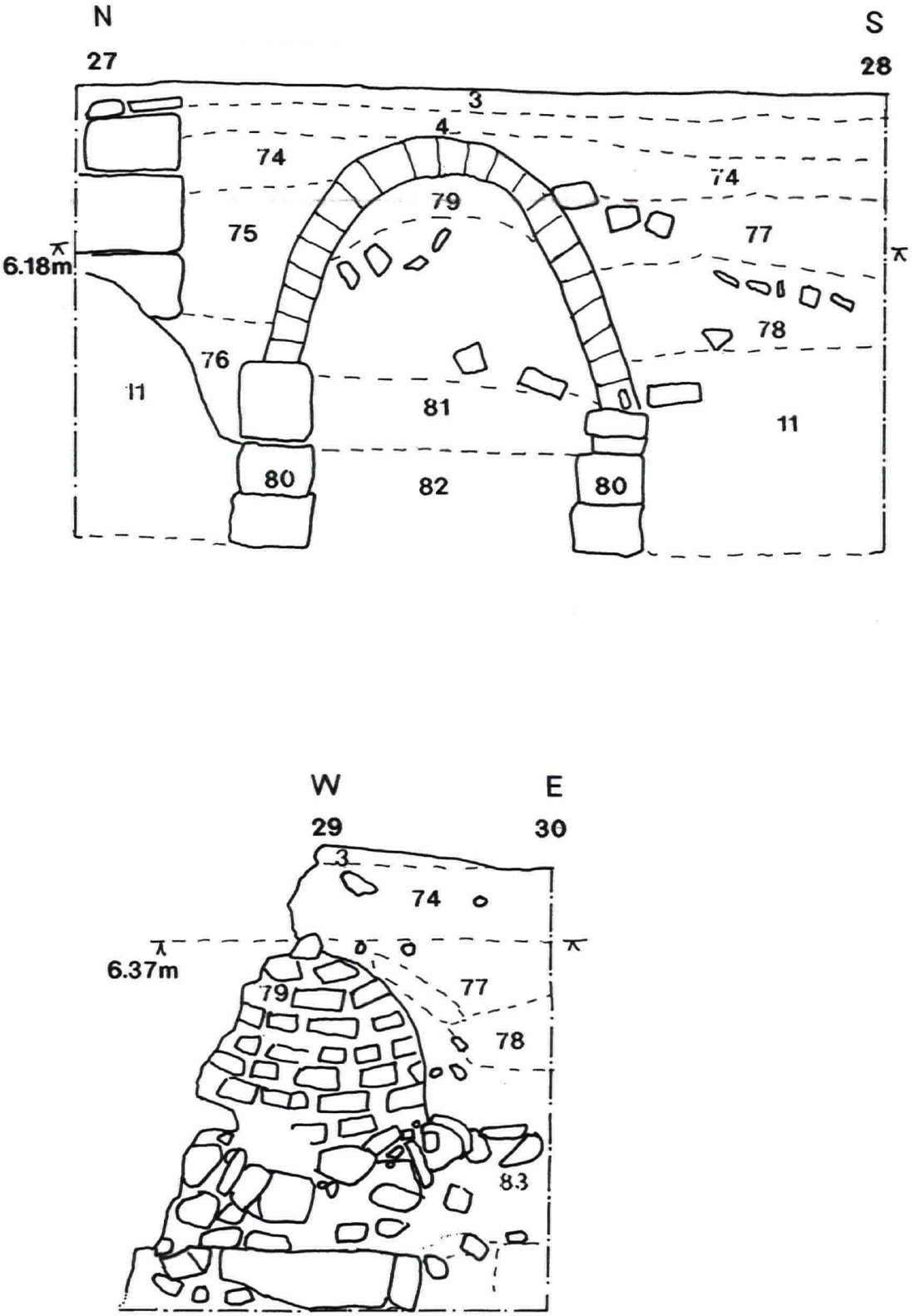

Figure 44

Scale 1:20

The Central Area

Due to the unusual form of the plot after the buildings had been demolished, it was necessary to mechanically excavate sections through the upstanding deposits at the back of the site, where the building had not cut into the bank, and also through the area where the steps had been built to allow access to the rear courtyard. These excavated sections and the demolition of the back wall of 63 Baxtergate, which had been acting as a revetment for the bank, provided valuable information on the history of this area of the site.

Section 31-32

Section 31-32 (Fig 45) showed that below the concrete (context 3) and its associated hard core make up (context 4), there was a layer of silty clay loam with coal and pebbles (context 32) which had ben cut by brick walls in the west and east. These walls belonged to the demolished building at the rear of 64 Baxtergate. Context 36 was also cut by a drainage pipe trench (cut 35) which was filled with a silty loam with brick and slate fragments (context 36). Context 32 was also disturbed by substantial sandstone block foundations for the forementioned building.

Below context 32 was context 33 – a silty loam with various sized sandstone inclusions, this layer had also been affected by the foundations and wall of the demolished building and pipe trench.

Context 33 sealed context 34, a silty clay with small sandstone pieces, brick flecks and charcoal inclusions. The layer continued for the full length of this section and was only disturbed by the pipe trench and the foundations of the demolished building. Stratigraphically it relates to context 10 on Section 15-16 (Fig. 38). But whereas context 10 in the west of the site lay directly onto natural, in the central portion context 34/10 sealed a number of relatively thin layers – contexts 37, 38, and 39.

Context 37 was a silty loam with coal, context 38 a compact silty clay, and context 39 a clay loam. Context 39 was unusual in that it continued for the full length of the section, but dipped significantly to the east, where it was sealed by a thick deposit of silty clay with some charcoal, a deposit that the excavator felt to be redeposited context 11.

Below context 39 was context 40, a silty loamy clay with some pebbles and charcoal. This deposit sealed a small band of silty loam with 50% charcoal inclusions (context 41).

The information which this section provided suggests that part of the central area was cut away at some stage in the development of the site as witnessed by the occurrence of contexts 38, 39, 40 and 41. Then a later stage of redevelopment involved the deposition of the substantial deposit of context 11, as seen in the east of the section (Fig. 45). This may have occurred during the redevelopment of the site associated with the latest building (demolished in 1992) when a courtyard was built at the back of the site (Fig. 2a).

Section 33 – 34 (Fig. 46) which runs to the south of Section 31 – 32 (Fig. 2b) was situated below the steps up into the courtyard and below the sewage pipe trench. Below a thick deposit of silty clay loam (context 34) was a band of very fine sand (context 43), which in the north sealed a silty clay loam with large pieces of charcoal (context 40). This layer in type and form equates to layer 50 at the front of the site. Below context 40 was a layer of compact clay with a small percentage of charcoal inclusions (context 46). This layer is very similar in composition to the deposits of natural on the site (i.e. context 10), the variation in colour can be explained by the variance in colour of natural clays.

Above layer 46 a concentration of sandstone slabs (context 45) was located, sealed by layer 44, a sandy loam with daub and charcoal.

The sandstone feature appeared to be a makeshift floor surface not associated to any building structure, but it was only approximately 3m from the well, and therefore may be associated with the use of this feature.

Section 15–16 (Fig. 47) is situated to the west of section 35–36. This section shows that below the concrete floor (context 3), and associated hard core (context 4), was a thick deposit of sandy loam with occasional brick and coal inclusions (context 13). Below this layer was another thick deposit of a similar sandy loam with a much higher incidence of coal and charcoal (context 14) which became less compact and more crumbly towards the northern end of the section, where it merged with a silty clay with charcoal inclusions (context 17). Butting up to context 17 was a deposit of sandstone rubble (context 16) associated with the construction of the fireplace of the outbuilding formerly occupying this area of the site.

Contexts 13 and 14 butted up to the east–west sandstone block foundations of the demolished building (context 31), and the lower portion of context 14 acted as bedding for the foundation.

Below context 14 was a thin band of silty loam with shell and coal inclusions (context 19); below contexts 14 and 19 was a deposit of loamy clay (context 20). This context merged with context 18, a silty clay loam with ?daub and charcoal inclusions.

Both contexts 18 and 20 sealed context 21, a compact clay which was contaminated with a high occurrence of charcoal (context 21). Below context 21 was context 22 the start of natural on the site but as mentioned above, different in colour to contexts 11 and 12.

The fall of the lowest layers on this section again indicated the natural fall of the land. The uppermost layers on section are clearly associated with the construction of the building. As seen with other sections from this area of the site the stratigraphy tends to suggest a progressive accumulation of deposits with no evidence for structures or industrial activity. The occurrence of context 19 would appear to be a dump layer due to its relatively small size and nature. Below this level again the layers are suggestive of natural accumulation. Dating of which remains problematic due to the lack of associated finds.

The final phase of the watching brief on the site was to observe and record the removal of the latest floor layers which still remained in situ after all the underpinning and foundations had been

completed. It was feared at the outset of the project that this element of the development programme would be extremely harmful to the archaeological deposits on the site. Fortunately the final level of the building was such that only the latest tiled and concrete floors, with their associated bedding layers, from the demolished building were removed. The removal of this stratigraphy exposed a line of sandstones, six in total which were aligned east to west and set into layer 50 at a point 9.4m from present street frontage and 1.8m in from the western boundary of the site. The feature consisted of a single course of stone. It was not possible to determine the exact size or function of this feature as the required depth of clearance had been reached.

Context 50 was seen to extend for much of the stripped area, except for the area to the north, which had previously been stripped down to natural, and for a small area in the centre of the site occupied by a deposit of clay c. 2m square, which appears to have been dumped on top of context 50.

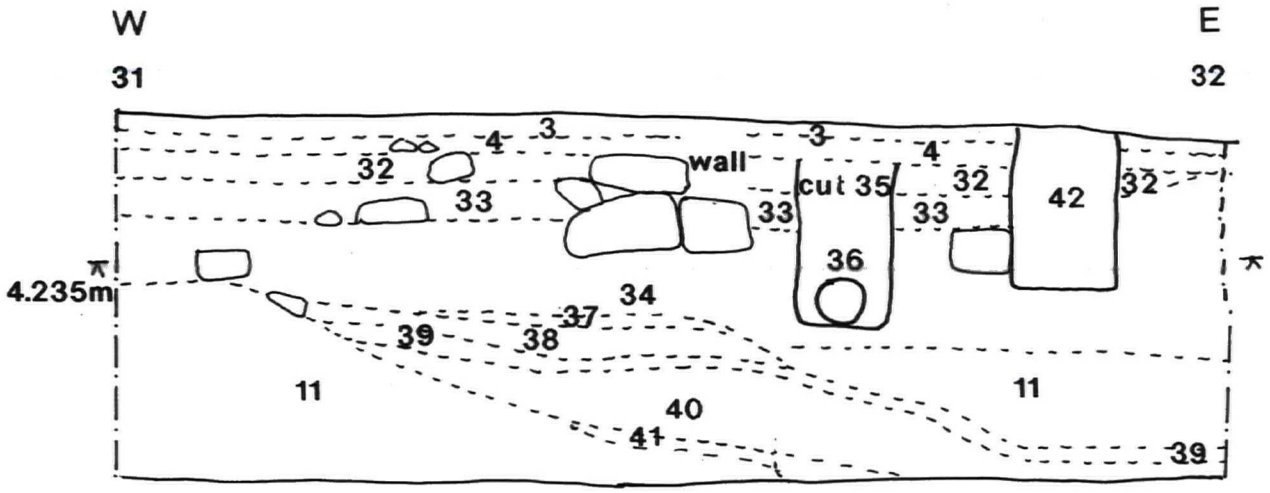

Figure 45

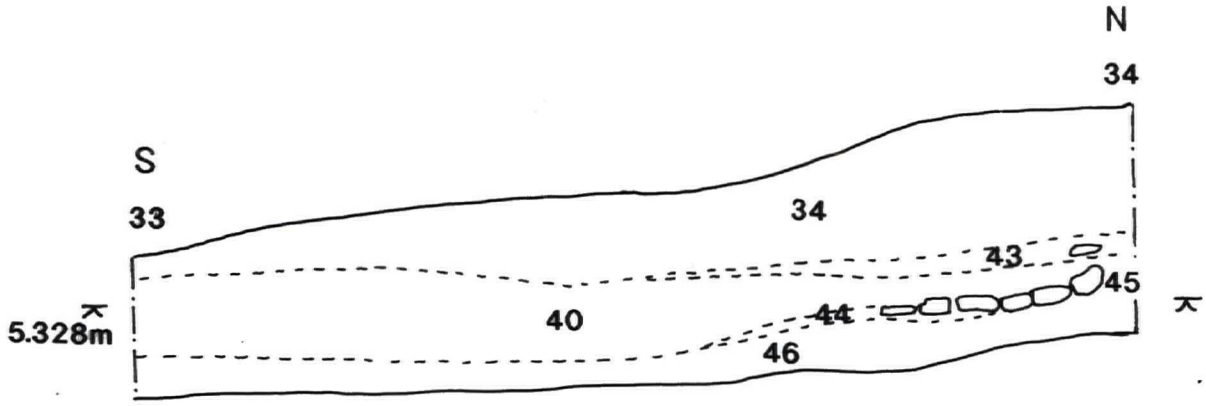

Figure 46

Scale 1:20

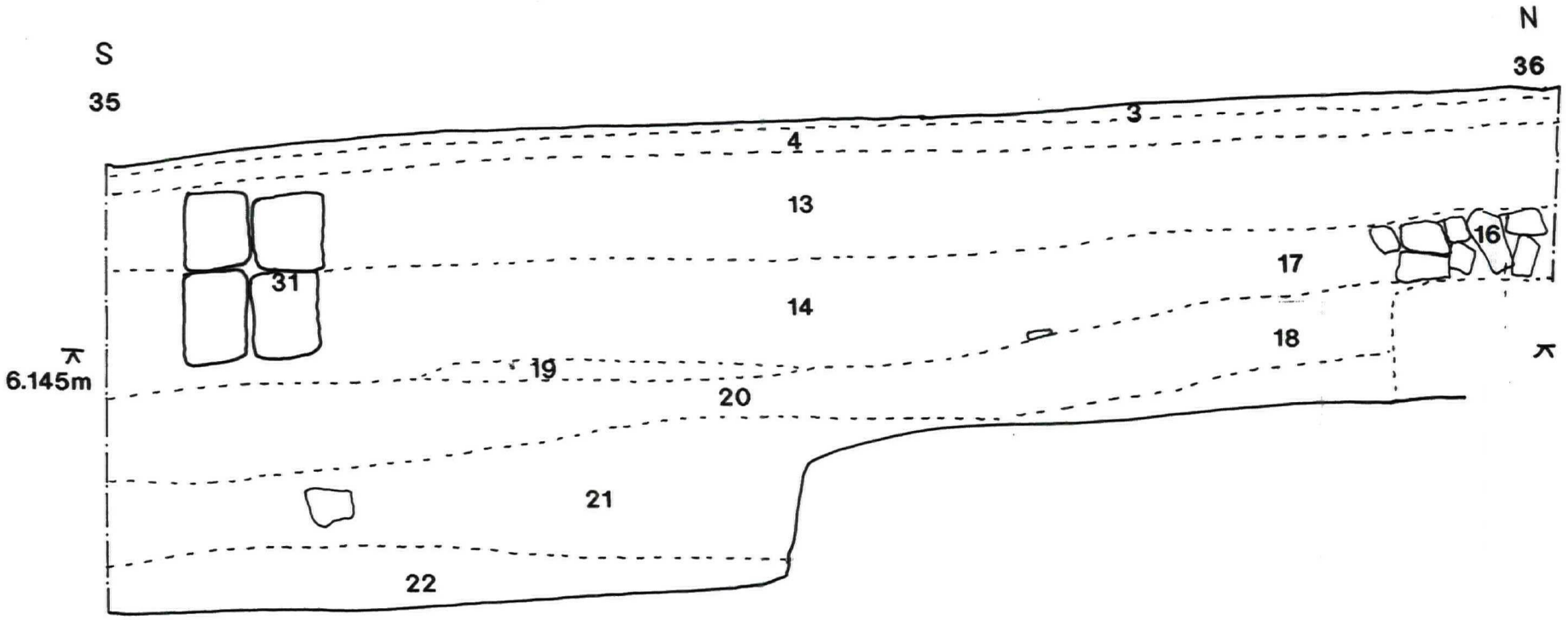

Figure 47

Scale 1:20

Trench 3

As mentioned above, a main sewage pipe bisected the site. In the early stages of the site development a temporary pipeline had been installed; this was later replaced when the old pipe was removed and the original pipe trench deepened to accommodate the new pipe.

The west facing section (Fig. 48) produced in situ deposits which were recorded as the east–facing section suffered much disturbance during the course of the excavation of the pipe trench. Equally, the lower levels of this section were rapidly recorded due to the amount of groundwater and sewage water which were seeping into the trench.

Below the concrete floor (context 301) and the brick wall (context 302) was a thick sandy clay deposit (context 303) which both sealed and formed the bedding for a line of sandstone blocks (context 304) which had acted as the foundations for the west wall of 64 Baxtergate. Below the foundations was a deposit of clay in the south of the trench (context 305) which sealed a relatively thick deposit of medium silty sand (context 306).

Below this band of sand, which may have been used as a levelling/sealing layer for the construction of 64 Baxtergate, was a band of dark coloured silty loam (context 307) which sat upon a thin band of sand (context 308). This layer in turn sealed a thick layer of clay (context 309).

Below context 309 occurred another band of dark silty loam (context 310) sat partially on a layer of sand (context 311) . This context varied to those seen above and in Trench 1 by the fact that it appeared to fill a shallow depression rather than be linear in shape. Below context 311 was context 312, a compact clay, which sealed context 313, again a dark silty loam, which sealed another thick deposit of clay (context 314).

Context 314 sealed another dark silty loam (context 315) which in turn sealed a compact clay deposit (Context 316).

The final dark silty loam layer seen in Trench 3 was context 317.

The dark silty loam layers 307, 310, 313, 315 and 317 were suggestive of floor/occupation deposits by their nature and composition, and therefore it is probably correct to interpret contexts 306, 309, 312, 314 and 316 as deposits which were laid down deliberately to seal the floor deposits. The section in this area of the trench also clearly indicates that the floor deposits and associated dumps continue under the front boundary of the site and into Baxtergate for an unknown distance.

The floor deposits continue for approximately 6m to the north of the Baxtergate frontage before petering out. The section provided no evidence for a back wall for the building, nor any evidence for timber revetment/walls.

The excavation of the new sewage pipe trench did locate a linear feature in the bottom of the trench (cut 319), aligned east to west, and cut into context 318, a solid clay. This feature measured approximately 2m at the top, narrowing to 1m; the profile of the feature was not determined due to the confines of the excavation. It is interesting to note that the clay deposit, context 316, and floor deposit 317, were both cut by 319.

The arrangement of floor deposits had been seen to occur consistently for 1.5m in Trench 1, but was not apparent in Trench 2, which was only 2m from Trench 3. The exact definition of the settlement of Baxtergate was impossible to define due the nature of the development of the site. A foundation trench across the front of 63–64 Baxtergate would have been most enlightening, but the structural design for the new development did not require this.

4. Summary

The excavations and watching brief at 63–64 Baxtergate provided valuable information in setting the testhole excavations of the site into context, as well as providing a more detailed account of the history of this area of Whitby

Excavation of Trench 1 detailed a history of floor/occupation deposits Although pottery from this part of the site was sparse, it was possible to suggest that the occupation levels dated to the 14–15th centuries. Excavation of the new sewage pipe trench again provided evidence for occupation deposits, which as in Trench 1, were seen to continue beyond the present day street frontage. Excavation in Trench 1 also produced evidence of timber construction, although the pattern of the stakes appeared random, and apart from the substantial posts set as ?revetment into the side of the linear feature in the west of Trench 1, it is difficult to determine the function of the stakes

Excavation in Trench 3 also indicated the presence of a linear feature aligned east to west The presence of ditches on the site may be explained as property boundaries or drainage gullies, although such an interpretation must remain inconclusive due to the limited nature of the excavation

In Trench 2 excavation showed that a completely different stratigraphic history, although it was only situated approximately 3m to the west of Trench 3 No occupation deposits were encountered akin to those in Trenches 1 and 3, but instead the floor levels were constructed of sandstone slabs and dated by pottery association to the post-medieval period The excavation of Trench 2 suggests that this part of the site was developed much later than the central and eastern areas.

Excavations at the rear of the site indicated that the ?unstable nature of the cliff face may have influenced the use of this area of land It is clear that natural deposits occur at a much greater height above sea level than those at the street frontage Deposits sampled, and features located in the rear of 63–64 Baxtergate, suggest that the land was not used for occupation, and there is no evidence for industrial activity The only upstanding structure was the well which went out of use in the post medieval period when the courtyard was constructed It is not known when the well was constructed nor for how long it was in use, although presumably the well was the water source for the property, or properties, along the street frontage

The excavation and watching brief clearly document that part of the site was inhabited in the 14–15th centuries, a fact which complements the historical evidence for this part of Whitby (see conclusions)

5. Conclusions

The street name "Baxtergatc" bears the "gate" suffix that is derived from the Old Norse "Gata", and could be interpreted as "street of the bakers", Thurlow (1979) However, it seems likely that the "baxter" element derives from members of the Baxter family, who are said by Young to have owned property on Baxtergate before and after the dissolution of Whitby Abbey, Young (1840, p 153). A John Baxter of Newcastle left property m Baxtergate in 1616, Young (1817)

At what date Baxtergate originated as a thoroughfare is uncertain Baxtergate, although not specifically named, is thought to be one of the four principal ways into the town mentioned in a charter of abbot Richard between 1177–1189, VCH (1923, p 507)

Medieval occupation of the eastern part of Baxtergate, in which the site lies, is illustrated by the presence of narrow, rectangular burgage plots in the area, Daysh (1958, p 57) Further, a deed of 1624 quoted by Young (1840, pp 153–4), refers to a cottage and garden "abutting on Baxtcrgate on the south sometymcs parcell of the laundes and possessions of the layte dissolved Pryorie of Graundmont *als* Growniont", strongly supporting the assumption that the area was occupied in medieval times In 1574, it is recorded that houses lined both sides of Baxtergate, which was referred to as *via regia* or the King's highway, Young (1817) Baxtergate had become a populous area by the early 19th century, Young (ibid) refers to a survey of 1816 by Charlton, who records 1537 inhabitants on Baxtergate, including 126 persons m one yard alone (America Square)

Environmental samples were taken from the lowest level in Trench 1 to assess whether any deposits consistent with marine flooding existed The analysis concluded that the deposits encountered were not marine in origin, but derived from human occupation It would therefore appear that the site lay away from the medieval shoreline, which was probably situated at the southern end of the burgage plots facing what is now New Quay Road (Fig 1), where small shipyards existed in Georgian times, Daysh (1958, p 59)

The 1992 excavations at 63–4 Baxtergate have added substance to the historic record by recording the existence of stratified deposits of medieval date, along with interesting environmental horizons, below the Georgian and later developments

6. Bibliography

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APPENDIX 1

Context Listing

1		Well
2		Fill of well
3		Concrete
4		Broken brick – hard core
5		Cut – modern water pipe
6		Fill of cut 5· 10YR 3/2 silty clay with pebbles, brick, and sandstone blocks
7	10YR3/3	Silty clay loam with water borne pebbles
8	10YR3/3	Silty clay loam with 50% coal
9	10YR3/4	Clay loam with coal flecks and pebbles
10.	10YR3/6	Clay loam with coal and pebbles
11.	10YR3/3	Clay with charcoal
12.	10YR3/3	Solid clay no inclusions
13.	7 5YR3/2	Slightly sandy loam no inclusions
14	7 5YR3/2	Slightly sandy loam with high incidence of coal and charcoal, some brick
15		Sandstone foundations – part of Church construction
16		Sandstone foundations – part of foundations for demolished two storey outbuilding
17	10YR3/3	Silty clay with charcoal inclusions
18	10YR3/2	Silty clay loam with daub? and charcoal inclusions
19	7 5YR3/2	Silty loam with shell, cinder and coal inclusions
20	10YR3/4	Loamy clay no inclusions
21	10YR3/4	Clay with charcoal and lenses of 10YR 4/4 clay and large sandstone natural block = 11
22	10YR4/4	Compact clay = 12
23		Concrete = 200 = 100
24		Hard core for 23 – sandstone and brick rubble = 201
25	10YR4/4	Silty clay loam with occasional brick & sandstone inclusions Lens of burnt material noted = 206
26	10YR4/3	Compact clay = 212 = 11
27	10YR3/3	Silty sand loam with brick, sandstone & mortar inclusions = 205
28	10YR3/2	Silty clay with charcoal flecks
29	7 5YR5/6	Fine silty sand no inclusions
30		Line of sandstone blocks
31		Sandstone block foundation for demolished outbuilding
32	10YR3/2	Silty clay loam with coal and small pebbles
33	10YR3/2	Silty loam with various sized sandstone up to c 0 4m length
34	10YR3/3	Silty clay with small sandstone pieces, brick flecks and large amount of charcoal
35		Cut for pipe trench
36	10YR3/2	Fill of 35 Silty loam with brick and slate fragments
37	10Y 2/1	Silty loam with coal
38	5 YR5/6	Compact silty clay
39	10YR2/1	Clay loam
40	10YR4/2	Silty loam clay with charcoal and sandstone pebbles
41	10YR3/2	Silty loam with 50% charcoal
42		Brick foundation for demolished outbuilding
43	2.5YR5/4	Very fine sand
44.	10YR3/4	Silty sandy loam burnt daub and charcoal
45		Linear band of sandstones – ?floor
46	5YR5/8	Compact clay with charcoal inclusions
47	10YR3/2	Sandy silt = T1 (5)
48	7 5YR5/6	Sandy loam
49	10YR6/4	Sand with sandstone pieces = T1 (9)
50	10YR3/2	Silty clay with sandstone pieces = T1 (22)

51.	10YR4/3	Silty clay with water borne cobbles = T1 (10/21)
52	10YR3/3	Clay silt = T1 (23)
53	10YR3/3	Clay silt = T1 (25)
54	7.5YR5/4	Compact clay = T1 (26)
55	10YR4/4	Sand and mortar
56.	10YR4/2	Compact clay
57	10YR2/2	Sandy loam
58	10YR4/4	Compact clay
59	10YR2/2	Sandy loam
60	10YR4/6	Clayey sand
61	10YR3/3	Clay loam with organic debris
62	7 5YR3/4	Clay sand
63	10YR4/3	Compact clay
64	7 5YR2/0	Silty loam clay with 90% organic deposits
65	10YR4/4	Compact clay
66	10YR3/1	Silty clay with 90% organic deposits
67	10YR 4/3	Silty clay
68		Not used
69		Not used
70	10YR4/2	Silty clay
71	10YR2/2	Silty clay
72.		Sandstone foundations
73		Irregular sandstone blocks
74		Mortar and brick rubble
75	10YR7/6	Yellow clay
76	10YR5/4	Yellowish brown clay with demolition debris
77	10YR7/6	Yellow clay with pebbles and sandstone pieces
78	10YR3/3	Dark brown silty loam with demolition debris
79		Stone, brick and concrete capping of well
80		Sandstone well
81		Rubble and rubbish filling well
82	10YR7/6	Clay, sandstone and brick debris filling well
83	10YR3/3	Demolition debris and backfill from Testhole 5
84–92		Not used

Trench 1

93		Black & white vinyl tiles
94	2 5Y7/8	Sand
95		Brick footings
96		Brick wall on west side of trench
97		Line of sandstones on south side of trench
98		Brick wall on east side of trench
99		Sandstone slabs
100		Concrete
101	5YR7/4	Decayed mortar
102	10YR3/6	Silty sand with coal
103	7.5YR2/2	Silty loam with charcoal
104	10YR4/4	Compact clay
105	10YR3/6	Silty sand
106	10YR4/3	Silty sandy loam with mortar & brick flecks
107	5YR4/6	Compact clay with charcoal flecks
108	2.5Y7/4	Cut
109	10YR4/2	Medium, fine silty sand
110	7 5YR4/6	Medium, plastic silty sand
111	10YR2/1	Silty loam with 90% charcoal
112	7 5YR4/6	Compact clay
113	7 5YR4/6	Medium silty sand

114		Cut
115		Cut
116	10YR2/1	Plastic sandy silty loam
117	7.5YR5/6	Compact clay with charcoal & sandstone pieces
118	7.5YR4/6	Silty sand with no inclusions
119	10YR3/4	Plastic silly sandy clay with 50% sandstone pieces
120	7.5YR5/6	Compact clay.
121	2.5YR4/6	Compact clay
122	10YR2/1	Silty loam with charcoal inclusions
123	2 5YR2/5	Silty clay loam with charcoal inclusions
124	2 5YR4/8	Silly sand with ?decayed brick
125	10YR2/2	Silty clay loam with small clay deposit (as 120) & charcoal flecks
126	10YR4/6	Medium silly sand
127	10YR2/1	Silly loam
128	7 5YR5/3	Compact clay with occasional sandstone pebbles, charcoal, wood slivers & shells.
129	10YR2/1	Plastic silty loam
130	7 5YR5/6	Friable silly sand with slight clay
131	10R5/8	Very hard clay, also silty plastic clay, 2 5Y7/3
132	2 5YR3/2	Silty loam
133	10YR4/6	Fine silly sand
134	5YR3/4	Plastic silty clay loam.
135	10YR2/1	Silty loam with charcoal inclusions.
136	10YR5/6	Compact clay
137	10YR2/1	Silty loam
138	10YR4/3	Plastic silty sandy clay loam with charcoal, sandstone cobbles, burnt wood & clay blades (10YR5/6)
139		Not used
140	7 5YR4/2	Silly clay with charcoal & ?daub inclusions
141	10YR3/2	Silly sandy clay loam with 40% charcoal
142		Stones of possible dram
143	7 5YR4/6	Silly clay loam with charcoal & decayed daub
144	10YR3/4	Silly clay with corrosion products(iron pan)
145	10YR4/4	Fine silty sand
146	10YR4/3	Silly sandy clay with charcoal & small sandstone inclusions
147	10YR2/1	Silty sandy loam with charcoal & shells
148	10YR3/3	Silty clay
149	10YR7/4	Compact clay
150	10YR4/3	Compact clay with silty clay(10YR2/2)
151		Cut for 150
152	2.5YR4/8	Compact silly sand
153	10YR3/3	Compact silty clay
154	10YR4/3	Fill of cut 157 Silly sand with charcoal & small pebbles.
155	7.5YR4/4	Silly sand clay with sandstone inclusions
156	7.5YR3/2	Sandy loam with charcoal inclusions
157		Cut
158	10YR3/3	Mixed layer of silly loam & silly sandy clay with occasional pebbles
159	10YR3/1	Silty clay with large quantity of charcoal
160	10YR3/1	Compact clay
161	10YR3/1	Silly loamy clay with wood & charcoal inclusions
162	10YR3/3	Very silty clay with wood inclusions
163	10YR3/1	Silty clay with sandstone feature
164	10YR3/1	Silty clay with wood & charcoal inclusions
165	10YR5/3	Plastic silly clay with lots of organic matter.
166	10YR3/1	Silly clay with 90% organic matter & occasional pebble
167	7 5YR3/0	Silty clay with 50% organic matter
168	10YR4/2	Compact clay with gravel inclusions
169	5Y2 5/1	Silty sandy loam with organic material
170		Depression

171		Hearth
172	10r5/3	Compact silty clay with charcoal inclusions

Trench 2

200		Black & white vinyl tiles
201		Concrete
202		Brick & concrete rubble
203		Sandstone slab floor
204	10YR5/4	Sand
205	10YR3/3	Silly sand loam with brick, sandstone & mortar inclusions
206	10YR4/4	Silty clay loam with occasional brick & sandstone inclusions
207		Sandstone footings
208		Remains of sandstone floor/wall
209		Sandstone structure abutting 208
210		Sandstone slab floor
211		Sandstone footings for building
212	10YR4/3	Compact clay

Trench 3

300		Trench 3
301		Concrete
302		Brick wall
303	10YR4/4	Sandy clay
304		Sandstone block foundations
305	10YR 4/2	Silty clay
306	10YR6/4	Medium silty sand
307	7 5YR2/2	Silty loam with charcoal
308	10YR6/3	Silty sand
309	10YR 4/4	Compact clay
310.	7 5YR2/2	Silty loam with charcoal
311.	10YR6/3	Silty sand
312	10YR 4/4	Compact clay
313	7.5YR2/2	Silty loam with charcoal
314	10YR 4/4	Compact clay
315	7 5YR2/2	Silty loam with charcoal
316	10YR 4/4	Compact clay
317	7 5YR2/2	Silty loam with charcoal
318	10YR 4/4	Compact clay
319		Cut

APPENDIX 2

Finds Catalogue

Context 112	Pottery	7 body sherds	0 05kg
	Shell	1 hmpet	0.005kg
Context 116	Pottery	3 body sherds	0 005kg
	Animal Bone	2 fragments	0 01kg
Context 127	Pottery	1 body sherd	0 01kg
Context 128	Pottery	1 handle	0 02kg
Context 129	Pottery	2 body sherds	0 005kg
Context 138	Pottery	1 body sherd	0 01kg
Context 140	Pottery	1 rim sherd	0 01kg
		3 body sherds	0 01kg
	Iron object	2 nails	
Context 147	Pottery	1 handle	0 01kg
Context 148	Animal Bone	1 knife handle	0 05kg
Context 153	Shell	2 limpets	0 005kg
Context 154	Jet	1 fragment	0 01kg
Context 158	Pottery	1 base sherd	0 015kg
		3 body sherds	0 005kg
	Wood	1 fragment	
Context 161	Pottery	2 body sherds	0.01kg
Context 163	Jet	1 fragment	0 02kg
Context 165	Pottery	1 body sherd	0 01kg
	Leather	1 fragment	0 005kg

Context 204			
	Pottery	1 base sherd	0 05kg
		2 body sherds	
	Glass	2 fragments	0 01kg
Context 205			
	Pottery	1 base sherd	0 05kg
		3 rim sherds	
		5 body sherds	
	Brick/tile	1 fragment	0.01kg
	Iron object		0.1kg
	Animal Bone	11 fragments	0.05kg
	Glass	7 fragments	0.05kg
Context 206			
	Pottery	2 base sherds	0.05kg
		33 body sherds	
	Brick/tile	2 fragments	0 05kg
	Stone		0 07kg
	Animal Bone	9 fragments	0 05kg
		1 tooth	
	Glass	1 fragment	0 005kg
Context 209			
	Pottery	2 body sherds	0 005kg
Context 210			
	Pottery	6 body sherds	0 05kg
	Iron object	1 nail	0 001kg
A1 Context 8			
	Pottery	1 rim sherd	0 01kg
	Animal Bone	1 fragment	0 01kg
A3 Well Context 2			
	Pottery	2 base sherds	0 05kg
		9 rim sherds	
		10 body sherds	
		1 handle	
	Iron object		0 4kg
	Shell	crab/lobster 2 fragments	0 005kg
	Clay Pipe	4 stem fragments	0 01kg
	Animal Bone	11 fragments	0 05kg
	Glass	12 fragments	0 05kg
B1 Context 24			
	Pottery	2 base sherds	0 6kg
		4 rim sherds	
		4 body sherds	
	Stone/concrete		0 05kg
	Glass	2 fragments	0 01kg
	Jet	1 fragment	0 005kg
B1 Context 25			
	Pottery	1 base sherd	0 09kg
		5 rim sherds	
		2 body sherds	
	Brick/tile	2 fragments	0.02kg

	Iron knife with bone handle, broken shaft		0 05kg
	Animal Bone	2 fragments	0 01kg
	Glass	1 fragment	0 01kg
	Jet	1 fragment	0 005kg
B1 Context 26			0 075kg
	Pottery	3 base sherds	
		9 rim sherds	
		13 body sherds	
		1 handle	0 1kg
	Iron object		0 05kg
	Brick/tile	2 fragments	0 06kg
	Animal bone	12 fragments	0.06kg
	Stone		0 07kg
	Glass	26 fragments	0 01kg
	Shell	crab/lobster 8 fragments	0 005kg
	Coal	1 fragment	0 01kg
	Clay pipe	5 stem fragments	0 005kg
	Cu Alloy Object		0 01kg
	Jet/shale	2 fragments	
B4 East Face			0 01kg
	Pottery	1 rim sherd	
		1 body sherd	
D1 South			0 06kg
	Pottery	1 rim sherd	
		7 body sherds	0 01kg
	Animal Bone	1 fragments	
D1 North Context 50			0 05kg
	Pottery	2 body sherds	
D1 Context 30			0 05kg
	Pottery	1 rim sherd	
		6 body sherds	
D1 North Context 32			0 05kg
	Pottery	2 body sherd	
D2 Context 50			0 01kg
	Pottery	1 body sherd	
D2 Context 50			0 005kg
	Pottery	2 body sherds	
D3 Context 26			0 01kg
	Pottery	1 body sherd	
D25 Context 50			0 05kg
	Pottery	2 rim sherds	
		7 body sherds	0 005kg
	Clay Pipe	1 stem fragment	
M4 EXT			0 01kg
	Pottery	3 base sherds	
		2 rim sherds	
		2 body sherds	

	Glass	1 fragment	0 005kg
M5	Pottery	3 base sherd 4 rim sherds 1 body sherd	0 06kg
Section Test 1 Context 9	Pottery	1 body sherd	0 05kg
Section 3 Context 50	Pottery	2 rim sherds 17 body sherds 1 handle	0 05kg
	Animal Bone	1 fragment 1 tooth	0 005kg
Section 3 Context 52	Pottery	1 body sherd	0 01kg
East side of Chapel	Pottery	1 rim & handle sherd	0 06kg
Context 50	Pottery	2 body sherds	0 06kg
East Foundation	Pottery	1 body sherd	0 01kg

APPENDIX 3

Pottery Report

Underpinning sections are denoted by letters of the alphabet and relate to architectural plans.

Context

50 — Scarborough Ware : 2 sherds from glazed jugs –
1 rod handle fragment
1 body sherd, applied scale decoration
Tees Valley Ware Rim & bridge spout of jug in specked green/brown
2 sherds yellowish/brown glazed jug; including spout & rim
2 lightly gritted unglazed sherds, 1 from a jug/jar
Splashed Ware 1 sherd m quartz-gritted fabric, sparse pitted green/yellow glaze
Humber Ware 11 body sherds, including 6 from glazed jugs/jars

52 — East Cleveland Ware lightly, evenly gritted micaceous gritted fabric
1 body sherd from a cooking pot, decorated with a band of rouletted lines & sooted exterior

8 — Brown Glazed Coarseware · 1 rim sherd of a bowl/puncheon

9 — Scarborough Ware 1 body sherd of a glazed jug; decorated with shallow horizontal lines

B1

24 — Brown Glazed Coarseware · 7 sherds (including 1 rim & 3 base) of a large, thick-walled flanged bowl
2 joining sherds of a large jar, decorated with a thumbed cordon below the rim on the outside (fig 51 13)
Blue & White Transfer Ware 1 small sherd from a plate/saucer with a scalloped rim

25 — Brown Glazed Coarseware 2 sherds(1 rim) of large, thick-walled flanged bowl
2 joining sherds of large jar with thumbed cordon decoration
Blue & White Transfer Ware 3 sherds
Eighteenth Century Buff/Yellow Ware 1 sherd from a jar decorated with 3 white slip bands (?Staffordshire Ware)

26 — East Cleveland Ware · 1 rim sherd from cooking pot/jar; dribbles/patches of clear glaze (fig 51 12)
Brown Glazed Coarseware : 1 rim sherd from large flanged bowl
Nottinghamshire Stoneware 2 sherds including 1 from a jar/mug base
Staffordshire Ware 3 sherds 'marbled' slipware,

including 1 platter rim
4 sherds glazed stoneware from a small (cream) jug decorated with incised wavy lines & applied sprig at base of the handle (fig 51 14)

Pearlware/Creamware · 3 body sherds
3 sherds of a cup/tea bowl underglaze painted in blue
1 base sherd with mauve brown speckled underglaze band

Also 2 glazed yellow slipware sherds
1 porcelain cup/bowl rim sherd
1 blue & white transfer ware sherd
1 Mn-glazed sherd (?Halifax)
1 brown glazed sherd (?Staffordshire)
1 fragment of pantile

D1

30 ?Splashed Ware · 2 body with sparse pitted purplish glaze

Scarborough Ware · 1 jug rim sherd (fig 51 16)
1 jug body sherd, decorated with raised vertical lines

Humber Ware 2 body sherds, abraded, 1 with trace of exterior glaze

Also 1 crumb, ?fabric?

D1 NORTH

32 Scarborough Ware 1 glazed jug body sherd, decorated with applied 'shield' motif (fig 17)

Humber Ware 1 glazed jug body sherd, decorated with incised horizontal lines

TRENCH 1

112 Tees Valley Ware 6 sherds from same glazed jug

Also 1 sherd very fine micaceous ware?

116 Tees Valley Ware Glazed jug body sherd, alternate yellow/green glazed vertical streaks
1 small unglazed jug body sherd

Also 1 daub crumb

127 Humber Ware 1 jug body sherd, glazed inside and out; exterior decoration of darker green glazed streaks

128 Tees Valley Ware 1 rod handle fragment, fine pinkish fabric, yellow glaze

129 Humber Ware 2 joining sherds, base of jug/cook pot(?), interior glaze; sooting on exterior

138 Humber Ware · 1 jug base sherd, patchy glaze inside and out

140 Tees Valley Ware 2 joining sherds, glazed jug, with applied pellet with Fe-rich glaze
1 glazed body sherd
1 jug rim sherd, abraded

147 Humber Ware · 1 handle fragment from a pipkin(?), patchy glaze (fig 52 21)

158 Humber Ware · 2 unglazed sherds, 1 from a jug base
1 glazed jug sherd, decorated with applied clay pads
1 glazed jug sherd(very small)

161 Humber Ware · 2 glazed jug sherds (same jug); decorated with horizontal incised lines

165 Humber Ware 1 unglazed sherd

TRENCH 2

204 Salt Glazed Stoneware 3 sherds, 19th century stout bottle inscribed " WSON TBY"

205 Tin Glazed Earthern Ware 1 polychrome platter sherd (rim), blue, mauve and brown paint
3 unpainted sherds, from a plate
Also · 3 brown glazed red earthern ware sherds
1 ?Halifax Blackware sherd
1 White Salt Glazed Stoneware rim sherd

206 Tees Valley Ware . 6 joining sherds of a jug, decorated with a streak of yellow glaze with a green margin, fine, hard pinkish buff fabric
1 glazed jug sherd, decorated with yellow glaze, plus 3 dark green applied pellets
Scarborough Ware 5 joining sherds glazed jug; decorated with a cruciform with applied clay roundels on terminals and along arms also horizontal rilling
1 further glazed sherd, no decoration(from same vessel?) (fig 51 18)
Humber Ware 2 joining sherds, glazed jug decorated with applied strips and pads
14 glazed jug sherds, from 8 different vessels
4 unglazed jug sherds, including 2 joining base sherds (+1 ?intrusive Staffordshire Ware brown glazed sherd)

209 Also 1 unglazed crumb?
1 glazed jug sherd, ?orange ware

210 Tees Valley Ware 2 joining sherds of a heavily-gritted cooking pot in a buff fabric
1 glazed jug sherd
Humber Ware 2 glazed jug sherds, 1 with wavy comb decoration
1 unglazed sherd

A3 WELL

2 ?Humber Ware 1 small unglazed sherd
Brown Glazed Coarseware 2 rim sherds, heavily flanged

bowl
Staffordshire Slipware 4 late yellow glazed slipware
Creamware/Pearlware 4 sherds, including 1 handle
Blue & White Transfer Ware 5 sherds
Porcelain · 2 blue underglaze painted sherds
Also 5 pantile fragments
1 brick fragment

B4

EAST FACE Humber Ware 1 glazed jug sherd
Staffordshire Yelloware · 1 glazed jar rim sherd

D1 NORTH

50 ?Tees Valley Ware 1 glazed jug sherd, yellow glazed with brown glazed applied pellets
1 glazed jug sherd, speckled green glaze

D2

50 Humber Ware · 1 unglazed sherd
2 small unglazed sherds

D3

26 Tees Valley Ware 1 glazed jug sherd, decorated with alternate yellow and green vertical glazed bands

D25

50 Tees Valley Ware · 1 glazed jug rim, internal flange, splashes yellow/green
1 fine thin-walled jug sherd, externally glazed with bands of green and yellow glaze
Humber Ware 5 glazed jug/jar sherds; 1 decorated with horizontal rouletted bands, 1 with horizontal rilled lines, 1 with vertical line of darker green glaze
Also 1 rim sherd from a plate/platter/bowl, internal rich green glaze, hard fine grey white fabric. Burnt on outside ?Post-medieval 'Tudor Green' type; or ?import

M4(EXT)

Transfer Ware 5 sherds, including 1 'greens' of Stoke 'Crete' design
Low Countries Stoneware 1 spirit flask, 19th century
Also 1 thick walled body sherd, hard light greyish buff fabric, ?Post-medieval

M5

Transfer Ware · 6 sherds
English White Stoneware 1 sherd, base of bowl, traces of painted gilt decoration (?Derby c 1750)

East Foundation(Unstratified)

Humber Ware 1 unglazed sherd

Unstratified

Humber Ware : 6 sherds, all from same patchily glazed jug

Context **50**

East Cleveland Ware 2 joining sherds from a thin-walled jar/cook pot

West Side of Chapel

Ryedale Type rim, strap handle and much of profile of a chamber pot, urine deposit/crystals on interior (fig 52 22)

D1 SOUTH

Tees Valley Ware 4 sherds from same glazed jug, speckled yellowish green glaze
1 glazed jug sherd, yellow glaze
1 glazed jug rim sherd, fairly gritty fabric, patchy green glaze with yellow margin (fig 51 15)
Humber Ware 2 small sherds including 1 glazed

	Medieval						Post-medieval									
	SP	SC	TV	EC	H	M?	Del	BE	NF	St	S2	P?	PC	BW	MD	Date
6	1	2	5		11											14–15th
7				1												13–14th
8								1								17–18th
9		1														13th
24								9						1		19th
25								4				1		3		19th
26				1				1	2	3	4	5	7	1		18–19th
30	2	2			2											14–15th
32		1			1											?14th
112			6			1										13–14th
116			2													13–14th
127					1											14–15th
128			1													13–14th
129					2											14–15th
138					1											14–15th
140			4													13–14th
147					1											14–15th
158					4											14–15th
161					2											14–15th
165					1											14–15th
204																19–20th
205							4				1	2				c 1700
206		6	7		16							1				14–15th
209						2										?
210			3		3											14–15th
	3	12	28	2	45	3	4	15	2	3	5	11	7	5	1	

Key ·

SP – Splashed Ware
SC – Scarborough Ware
TV – Tees Valley Ware
EC – East Cleveland Ware
H – Humber Ware
M? – ?Medieval
DE – Delft (Tin Glazed Earthernware)
BE – Brown Glazed Earthernware
NF – Nottinghamshire Stoneware
S1 – Staffordshire Slipware
S2 – Staffordshire Stoneware
P? – ?Post-medieval
PC – Pearlware/Creamware
BW – Blue & White Transfer Ware
MD– Modern Salt-glazed Stoneware

Discussion

The pottery from the excavations at 63–4 Baxtergate forms a fairly small assemblage (c 130 sherds), hence there are difficulties in drawing firm conclusions from it However, the assemblage does provide a range of fabrics from early medieval to recent date

The earliest fabric is Splashed ware, a quartz-gritted fabric with splashes of weak, flaky purplish glaze The probable date is 12th century

The ensuing fabric is Tees Valley ware, with a range of forms from elaborate jugs (fig 49 3, 50 4–6) to cook pots and jars (fig 50 11) Tees Valley ware has been recovered in some quantity from another recent excavation in Whitby, at Abbeylands Farm (Hunter, 1990) Other decorated jugs occur in Scarborough ware (figs 50 7, 51 16–18) There is also a small number of coarse vessels in 'East Cleveland' (fig 51 12 and 18) and Potter Brompton/Staxton wares (fig 50 1) In addition a large number of Humberware sherds are present (in fact the largest number of sherds is in Humberware). Humberware may at first be contemporary with Tees Valley ware, but later replaces it to some extent (Wrathmell, 1987, 39)

Early post-medieval fabrics are represented by Ryedale-type ware (eg the chamber-pot, fig 51 22) and a brown-glazed coarse ware (eg the jar, fig 51 13) Recent and modern pottery includes creamwares and pearlwares, Nottingham stoneware and a small, ornate jug in ?Staffordshire stoneware (fig 51 14)

Figures 49 and 50 illustrate significant sherds from the Trial excavations

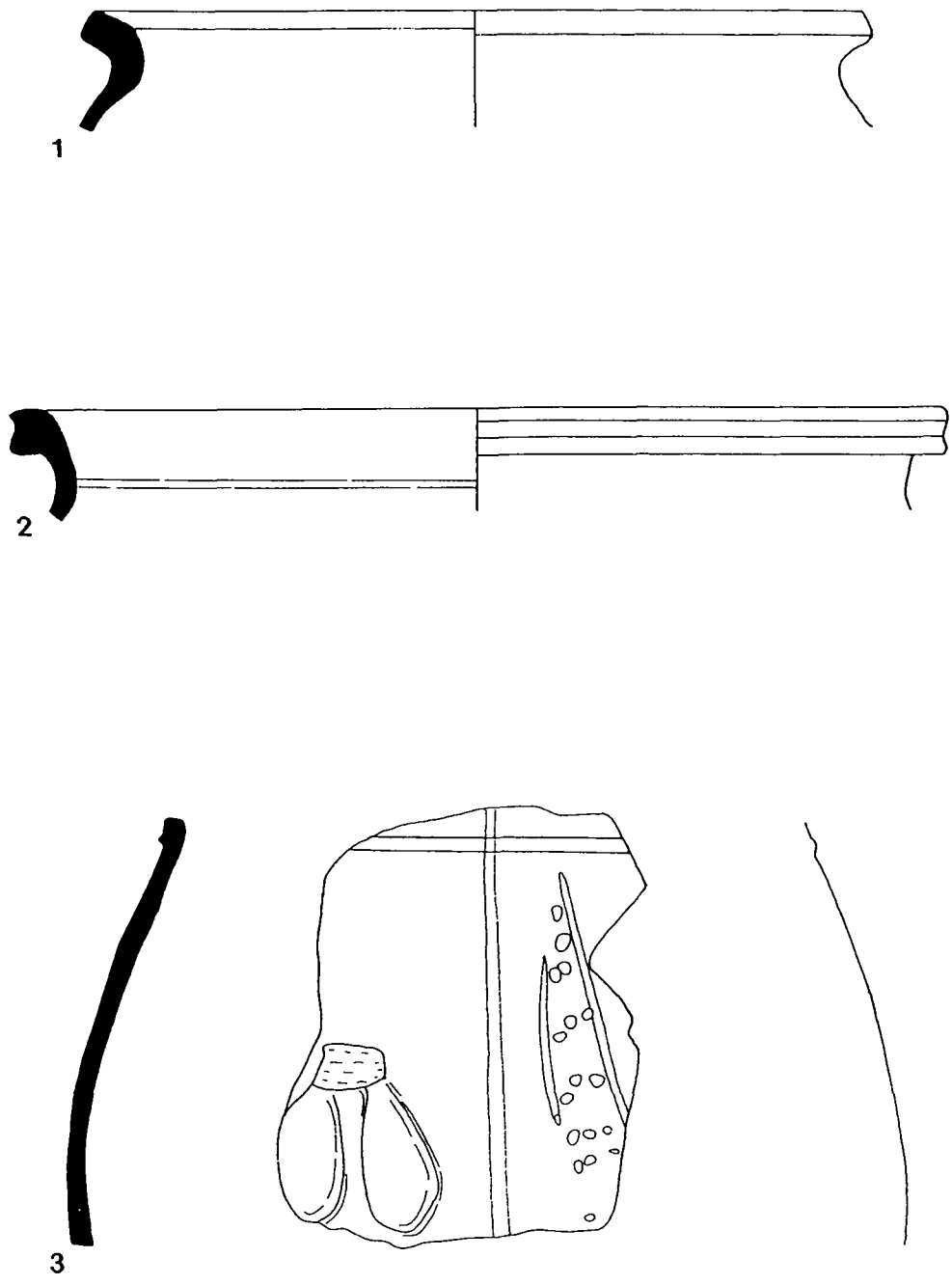

Figure 49 Pottery from Trial excavation, context 10 Scale 1 2

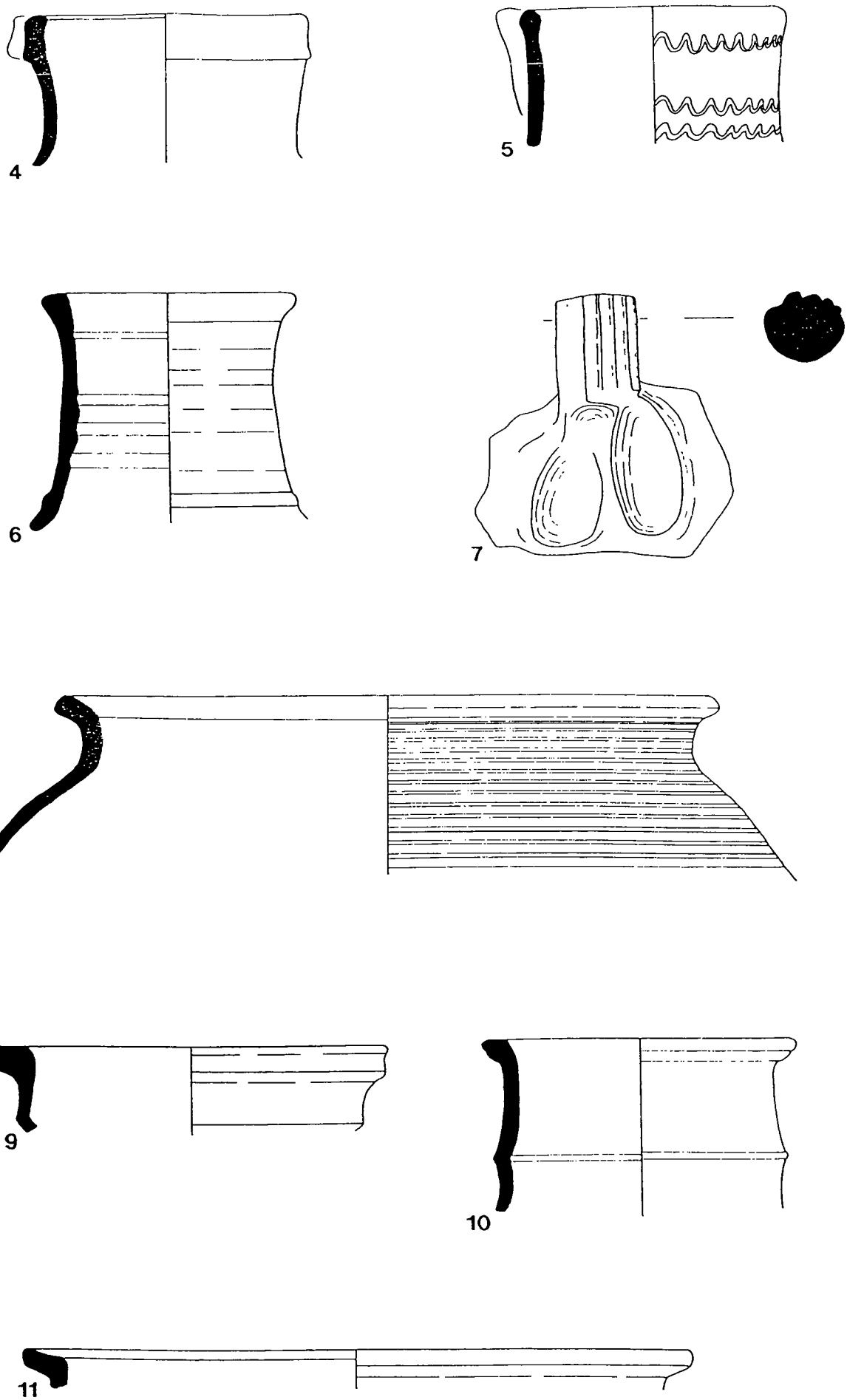

Figure 50 Pottery from Trial excavation, contexts 22 and 51. Scale 1 2

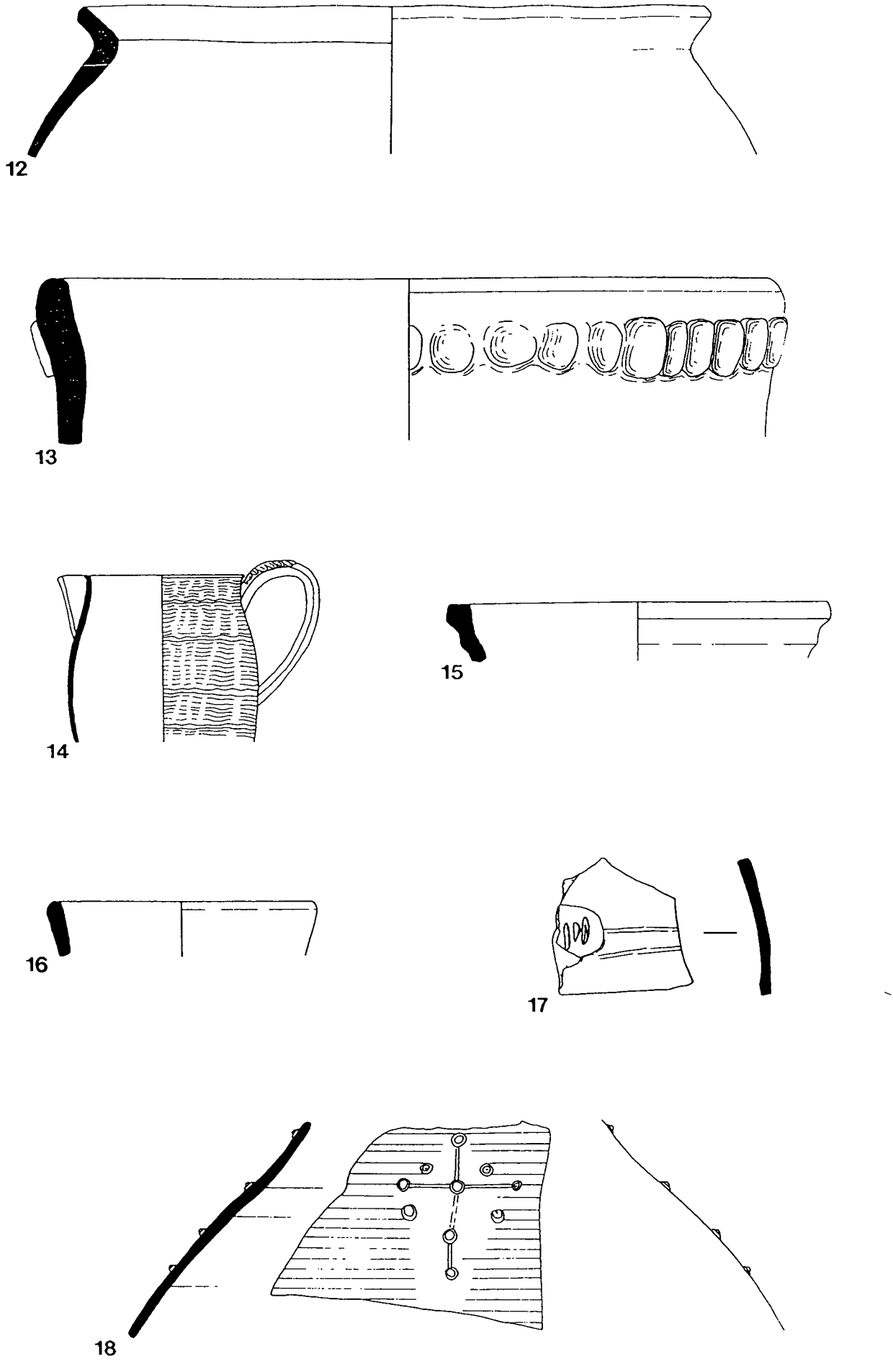

Figure 51 Pottery from contexts 24, 26, 30, 32 and 206 Scale 1 2

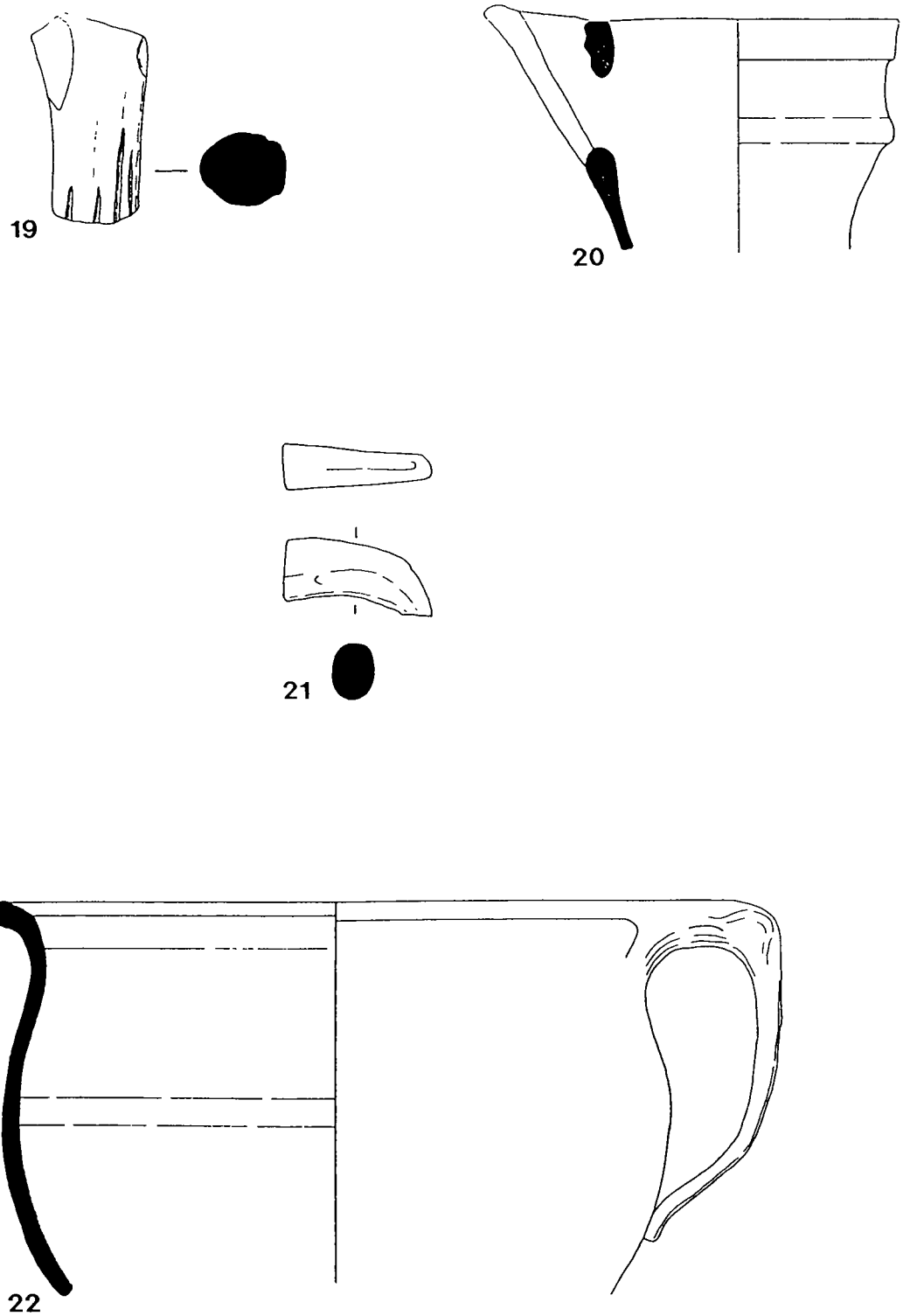

Figure 52 · Pottery from contexts 6, 147 and unstratified Scale 1 2

APPENDIX 4

Archive Listing

Trench 1	Plan No	Photograph No	Date	Author
	1	7	24 9 92	AEF
	2	8	24 9 92	AEF
	3	9	25 9 92	AEF
	4	10	25 9 92	AEF
	5	11	25/29 9 92	AEF
	6	16	29 9.92	AEF
	7	18	29 9.92	AEF
	8	19	29 9.92	AEF
	9	--	29 9 92	AEF
	10	24	1 10.92	AEF
	11	25	1/2 10 92	AEF
	12	1	2 10 92	AEF
	13	2	2 10 92	AEF
	14	3	6 10 92	AEF
	15	12	6 10 92	AEF
	15a	16	6 10 92	AEF
	16	17	7 10 92	AEF
	17	20	7 10 92	AEF
	18	21 & 22	7 10 92	AEF
	19	--	8 10 92	AEF
	19a	24 & 29	8 10 92	AEF
	20	30	8 10 92	AEF
	21	33	8 10 92	AEF
	22	34	8 10 92	AEF & KCG
	23	35	8 10 92	AEF & KCG
	24	36	8 10.92	AEF
	25	--	9 10 92	AEF & KCG
	26	1	9 10 92	AEF & KCG
	27	2	9 10 92	AEF & KCG

Trench 1

Section No	Photograph No	Date	Author
1	1	12 10 92	AEF & KCG
2	2	12 10 92	AEF & KCG
3	3	12 10 92	AEF & KCG
4	-	12 10 92	AEF & KCG

Trench 2	Plan No	Photograph No	Date	Author
	1	26	6.10 92	KCG
	2	27	6 10 92	KCG
	3	28	7.10 92	KCG
	4	29	8 10.92	KCG

Trench 2

Section No	Photograph No	Date	Author
1		8 10 92	KCG
2		8 10 92	KCG
3		8.10 92	KCG
4		8 10.92	KCG

Area A

Section No	Photograph No.	Dale	Author
A2 – south	21	1 10 92	AEF

Area B

Section No	Photograph No	Dale	Author
B1 – east	ˆ	28 9 92	AEF
B3 – west	ˆ	5 10 92	AEF

Area D

Section No	Photograph No	Date	Author
D1 – south/north	6	5 10 92	AEF
D1 – south/east	7	5 10 92	AEF
D2 – north	31 & 32	13 10 92	KCG
D3 – north	--	13 10 92	KCG

Misc Areas

Section No	Photograph No	Date	Author	Description
1	3	22.9 92	AEF	Main east
2	ˆ	29 9 92	AEF	Well – west
3	22 & 23	1 10 92	AEF	A3,B3,A2, – south
4	ˆ	5 10 92	KCG	Well – west
5	ˆ	5 10 92	KCG	Well – south
6	--	9 10 92	KCG	West found – west
7	ˆ	13 10 92	KCG	East found I – east
8	ˆ	13 10 92	KCG	East found I – west
9	--	13 10 92	KCG & AEF	East found II – east
10	--	13 10 92	KCG & AEF	East found II – west
11	--	13 10 92	KCG & AEF	East found III – east
12	--	13 10 92	KCG	East found IV – west
13	--	14 10 92	KCG & AEF	East found V – east
14	13–16	20 10 92	AEF	Drain Trench

Misc Area	Plan No	Photograph No	Date	Author	Description
	1	10–12	14 10 92	KCG & AEF	Timbers
	2	1–2	28 10 92	AEF	Well
	3	--	2/3 11 92	AEF	Site strip

APPENDIX 5

Photographic Archive

1 View of site after demolition Facing north
2 View of site after demolition. Facing north
3 Trench 1 after context 100 removed Facing east
4. Trench 1 after contexts 101, 102, 105 & 106 removed Facing east
5. Trench 1 after contexts 103, 104, 107, 108 & 109 removed Facing east
6 Trench 1 after contexts 111, 112, & 113 removed Facing east
7. Trench 1 after contexts 114, 115, 116, & 117 removed Facing east
8 Trench 1 after contexts 122, 123, & 124 removed Facing east
9 Trench 1 after contexts 120, 121, & 126 removed Facing east
10 Trench 1 after context 125 removed.Facing east
11. Trench 1 after contexts 127 & 130 removed Facing east
12. Trench 1 after contexts 119 & 129 removed Facing east
13. Trench 1 after contexts 131, 132 & 172 removed Facing east
14 Trench 1 after contexts 133 removed Facing east
15 Trench 1 after contexts 128 removed Facing east
16 Trench 1 after contexts 135, 136, 137, 138 & 173 removed Facing east
17. Trench 1 after contexts 140 & 142 removed Facing east
18 Trench 1 after contexts 141, 143, & 144 removed Facing east
19 Trench 1 after context 145 removed Facing east
20 Trench 1 after contexts 146 removed Facing east
21 Trench 1 after contexts 147, 148, 149 & 150 removed Facing east
22 Trench 1 after contexts 152, 154, 156 & 157 removed Facing east
23 Trench 1 after context 158 removed Facing east
24 Trench 1 after contexts 153, 155, & 158 removed Facing east
25 Trench 1 after contexts 159 & 160 removed Facing east
26 Trench 1 after contexts 161 & 162 removed Facing east
27 Trench 1 after contexts 163 & 164 removed Facing east
28 Trench 1 after context 165 removed Facing east
29 Trench 1 after context 166 removed Facing east
30 Trench 1 Section 1-2 Facing north
31 Trench 1· Section 3-4 Facing east
32 Trench 1· Section 5-6 Facing south
33 Trench 2 after contexts 200 & 201 removed Facing west
34 Trench 2 after contexts 202, 203, 204 & 205 removed Facing west
35 Trench 2 after contexts 206, 208 & 209 removed Facing west
36 Trench 2 Section 7-8 Facing north
37 Trench 2· Section 9-10. Facing east
39 Trench 2· Section 11-12 Facing south
40 Trench 2· Section 13-14 Facing west
41 West Foundation Section 15-16 Facing west
42 West Foundation Section 17-18 Facing west
43 West Foundation Section 19-20 Facing west
44 East Foundation Section 21-22 Facing west
45 East Foundation Section 23-24 Facing west
46 East Foundation· Section 25-26 Facing east
47 East Foundation· Section 27-28 Facing east
48 East Foundation· Section 27-28 Facing east
49 East Foundation: Section 29-30 Facing north
50 East Foundation Section 29-30 Facing north
51 Central Area Section 31-32 Facing north
52 Central Area· Section 33-34 Facing west
53 Central Area Section 35-36 Facing west
54 Trench 3· Section 37-38 Facing east

APPENDIX 6

Report on wood material from Baxtergate 92, Whitby.

This verbal report is to accompany individual timber record sheets for each of the wooden pieces examined. Record sheets were only made out for samples that actually contained wood that could be examined. The sheets contain detail in the form of notes and sketches of the pieces (and form part of the archive) The species identifications have been provided by Dr Allan Hall of the Environmental Archaeology Unit of York University

Descriptions

Stake 3 Sample washed through 1mm sieve Comprises 3 small splinters of wood, 3 small bones and 2 nut frags. in a clayey matrix

Stake 4 Sample washed through 1mm sieve Comprises 2 small eroded wood frags in a clayey matrix. Not identifiable to species

Stake 6 Sample washed through a 1mm sieve Comprises 3 very small charcoal frags in a clayey matrix

Stake 7 Sample washed through a 1mm sieve Comprises a number of charcoal, bone and nut frags m a clayey matrix

Stake 8 Sample washed through a 1mm sieve A clayey matrix with small pebbles, and occasional organic-rich soil inclusions

Stake 9. Sample washed through a 1mm sieve Comprises 3 small charcoal frags , 1 nut frag and 1 small wood splinter m a clayey matrix

Stake 10 Fragments of small stake or rod, complete with bark 20mm av diameter, length indeterminate Species Alder No remains of point or other worked features Ring count not possible

Stake 11 Sample washed through 1mm sieve 2 small frags of nut in a clayey matrix

Stake 13. Stake, in 2 pieces, 443mm long, 48mm wide, 37mm thick Subrectangular in shape, with bark present on 1 side. Species Alder Approx 1/4 split, with 5-faceted pencil-point tip No clear toolmarks visible 20 rings present, av 7 per cm Fast-grown wood, probably the result of coppicing

Stake 18 Stake tip, 1/2 round, 70mm long and 27mm av diameter, bark present Species Alder 2 point facets, at right-angles to each other No clear loolmarks Total of 5 rings (i e 5 years growth) Fast-grown wood, probably the resuh of coppicing

Stake 19 Sample washed through a 1mm sieve Comprises several very small frags of wood and charcoal dispersed through the sample, plus frags of bone

Stake 20 Possible stake, point missing, 1/2 split away along most of length 190mm in length, 31mm av diameter Species· Alder 2 side branches trimmed off towards one end, though cut marks indistinct Total of 6 rings (i e 6 years growth) Slow grown

Context 500. Tree stump, species Oak Slump hollow and rotted at root end, axe felling scar on the upper end 2 main cuts the shallow "bird's mouth" cut from one side (to set direction of fall) and the steeper main cut from the other The individual axe blows on each cut are now indistinct Ring

count not possible owing to irregularity of growth and hollowness, but the wood obviously very poorly grown

Context 501 Tree stump, species· Oak Stump hollow and rotted at root end, with axe felling scar at the upper end Two main felling cuts at opposite sides of the trunk of approximately equal size. It is unclear which is the "bird's mouth" cut and which is the main felling cut, each being of similar depth and pitch Individual axe cuts very indistinct due partly to a heavy iron-rich deposit . A large side root has been axed away flush with the side of the stump The grain is very knotty and irregular and a ring count not possible, although the wood is very poorly grown, the rings being very narrow.

Context 502 1 large and 3 smaller pieces of wood, possibly part of the same timber Species· Oak The larger piece is 180mm long, 97mm wide and 28mm thick, sub-rectangular in section and of tangential conversion All surfaces are heavily iron-stained and eroded or roughly split. No ring count possible, but the wood is very poorly grown

Context 503 Tree stump, with roughly 1/3 split away Species. Oak All surfaces are eroded, especially the root end The upper end is a felling scar, and, although eroded to a gentle curve, the remains of a "bird's mouth" cut is visible on 1 side, opposite the deeper main felling cut No ring count possible, although the wood appears very poorly grown

Context 504 2 separate lengths of withie· (a) 201mm long x 20mm av diameter, (b) 345mm long x 14mm av diameter Species both Alder Both are heavily iron-stained and have diagonal cut at one end, probably made with either an axe or a bill hook (a) has 3 years growth; (b) 1 year

Discussion

Little can be inferred from such a small collection of samples The two species present, oak and alder, are typical of the area, and the poorly grown nature of the three stumps might indicate an exposed growing position on impoverished soil The fact that the stumps have quite well preserved felling scars on their upper surfaces, but no sign of cut marks on the roots on the underside of the stumps, would indicate that the stumps rotted 'in situ' in their growing positions, unless they were well rotted underneath before being extracted and moved from their growing positions The tool marks are not well enough preserved to provide much information, although the use of a felling axe may be inferred from the felling scars on the stumps, an axe used for trimming - such as the square-headed axe - could have been used for pointing the stakes, and a general purpose tool, such as the bill-hook, used to trim the ends of the withies or rods

Jim Spriggs
York Archaeological Wood Centre
20 5 93

APPENDIX 7

Biological remains from excavations of medieval deposits at 63–64 Baxtergate, Whitby

Allan Hall, Deborah Jaques, Harry Kenward and Frances Large

Practical and Interpretative methods

Sample processing

Twelve samples of sediment from excavations at 63–4 Baxtergate, Whitby were investigated for plant and animal remains All were described in the laboratory using a standard pro forma and 1 kilogram subsamples of each processed using techniques described by Kenward et al (1980). In each case, paraffin flotation was carried out to extract insects and other invertebrates Plant remains were examined from the resulting flots and from 'washovers' from the residues The latter were oven dried and then checked for bone and shell

Plant remains

Lists of plant taxa identified from flots, washovers and residues were made using a four-point scale of quantification (1 - one or a few individuals/fragments per kg; 2 - approx 5–10 individuals or modest numbers of fragments per kg, 3 - 10–100 individuals or many fragments per kg; 4 - >100 or abundant fragments per kg) To provide a crude kind of analysis of the results, each identifiable taxon in each list was assigned a score of 1 to 3 for their value as indicators of one or more ecological and 'use' groups Thus, for example, a common waste ground weed such as fat-hen, Chenopodium album, scores 3 in the 'annual nitrophile weed' group CHEN, whilst deadly nightshade, Atropa bella-donna, scores 3 for EPIL (tall herb vegetation of woodland margins and clearings), 2 for CALC (plants of calcareous soils) and 1 for HERB (plants potentially used as medicinal herbs), while linseed or flax, Linum usitatissimum, scores 3 for FOOS (foodplants), FOOO (oil-seeds) and FIBR (fibre plants) From the combination of scores for abundance and indicator values were calculated the AIVs (abundance-indicator value, cf Hall and Kenward 1990) Tins gives a general measure of how significant a particular group of plants or an inferred vegetation type are for each sample

Intestinal parasite eggs

A small subsample from each sample was checked quickly for parasite eggs using the method outlined by Dainton (1992), which involves scanning a 'squash' of disaggregated sediment in water

Insect remains

The assemblages of adult beetles and bugs of the groups used to calculate 'main statistics' (see below) were 'scan' recorded (sensu Kenward 1992) unless otherwise stated Other invertebrates were recorded semi-quantitatively This method employs a five-pomt scale (Kenward et al 1986), abundance for each taxon being estimated as 1, 2, 3, 'several' or 'many' The last two are converted to 6 and 15 respectively for statistical purposes, a conversion discussed by Kenward (1992) Preservation was roughly quantified on a five point scale for chemical erosion and fragmentation

Counts are for 'minimum number of individuals' represented by the recorded remains, and the figures given may include both positive and 'probable' identifications

The manuscript lists and notes made during recording were entered to the University of York VAX Mainframe computer and processed using a Pascal system written by HK, producing 'main statistics' and species lists in rank and taxonomic order for each assemblages, together with files of main statistics, species records and notes for the whole site These were interrogated using the DATATRIEVE system

The interpretative methods employed in this report are essentially those used for many sites by Kenward and co-workers (see Kenward 1978, with refinements discussed, for example, by Kenward 1982; 1988; Hall and Kenward 1990) The interpretation of assemblages rests on certain 'main statistics' of whole assemblages of adult beetles and bugs, and upon ecologically-related groups of species The main statistics used include· a measure of species-richness (or diversity), Fisher et al.s' (1943) alpha, for the whole assemblage and for components of it, proportions of 'outdoor' species, aquatics, waterside species, phytophages (plant feeders), species associated with dead wood, moorland/heathland taxa, and decomposers (species associated with decomposing matter of some kind) The last category is subdivided into species associated primarily with rather dry habitats, those found mostly in rather, to very, foul habitats, and a residuum not easily assignable to one of these The identification of an 'outdoor' component in what are sometimes clearly natural or semi-natural assemblages may appear curious, but is in fact useful when working with any deposits associated, even if rather indirectly, with human occupation The index of diversity offers a useful indication of the presence or absence of autochthonous fauna (i e remains of insects which bred in or on the developing deposit), low values indicating breeding communities, high ones faunas of mixed origins Note that 'significantly' low values differ for the various components of assemblages; the more inherently rich a component is, the higher the value of the index of diversity for a living community will be Thus, 'outdoor' communities associated with natural vegetation tend to give a high value of alpha, while very specialised communities, such as those of decaying matter deposited by humans, or of stored gram, have low or very low ones

A component of the assemblages referred to in this report is 'house fauna' This is a group identified on the basis of archaeological records as apparently typical of primitive buildings housing people, stock, or stored organic material such as hay or straw It is not necessarily suggested that they formed a single community; species living in timber, wattle, thatch, floors and stored products may be present in any particular case The species are not likely to be found together today as a rule, since the habitats harbouring them have largely disappeared This component of archaeological insect assemblages is discussed by Hall and Kenward (1990), Kenward and Hall (forthcoming) and, largely by allusion, by Kenward and Allison (in press)
A further group alluded to is that containing species which may be indicative of imported hay-like cut vegetation, this includes certain Apion, Sitona, and Hypera species and a variety of others

Results

A complete list of plant taxa recorded from the site is given in Table 1. The lists of plant taxa recorded from each sample are presented in Appendix 1 in sample/context order and statistics derived from these lists in Appendix 2 (the numbers of taxa, percentage taxa and AIV are shown for each group and within each set of groups the order is from highest AIV to lowest) The groups and scores used in Appendix 2 are explained in Appendix 3

Evidence of intestinal parasitic worms was only recorded in a single case (sample 147); the negative results for all the other samples are not mentioned in the sample-by-sample account below

A complete list of invertebrate taxa recorded from the site is given in Table 2 The species lists (in rank order) and main statistics for the insect assemblages which were scan-recorded or rapid-scanned are presented in Appendix 4 The use of main statistics for rapid-scan recorded groups is discussed by Kenward (1992); in short, the statistics may be used for interpretation, but with suitable caution

Archive

With the exception of a few extracted specimens, all the plant remains are stored in the flots (in IMS) or in oven-dried residues at the EAU. Paper and electronic records are also stored there

The insect material from the processed samples is stored m IMS at the EAU. The manuscript records of identifications are also stored at the Unit

The computer input files and processed 'database' files for the site are stored in the University of York central Mainframe computer at the time of writing A set of hard copies of the processed data for each sample is stored at the EAU

Review of results, sample by sample

The samples are considered in context order with archaeological comments from the excavator in brackets

Context 7 [?occupation deposit/demolition; C13/14]

Mid grey-brown to dark grey, crumbly, slightly sandy silty clay with moderate amounts of wood to 60 mm, and traces of hazel (Corylus avellana) nutshell

The small flot included moderate numbers of fly puparia, a few beetle fragments and a very few plant macrofossiis The residue consisted largely of wood fragments to 50 mm (including some fragments with clear evidence of cut faces/edges), and some twig fragments to 20 mm, together with a few more plant macrofossiis Amongst these were traces of wheat/rye (Triticum/Secale) 'bran' and corncockle (Agrostemma githago) seed fragments likely to have originated in flour or flour-based food The remaining plant taxa were all typical weeds of disturbed soils consistent with occupation sites

A small assemblage of adult beetles and bugs of the groups used in calculating 'main statistics' was recovered 36 individuals of 31 taxa Other invertebrate remains included 'many' fly puparia and mites, 'several' fly larvae and scale insects, a flea (not identifiable to species on the parts recovered) and a part of a poorly preserved louse abdomen, probably of Pediculus humanus, the human louse

The beetles were rather well preserved in chemical terms, but many were very fragmented, with numerous tmy pieces of cuticle Tins made identification difficult m many cases

Main statistics for a group of this size can only be used with great caution Over a quarter of the individuals were of 'outdoor' taxa, suggesting accumulation in an exposed place or importation of 'soil' or other materials Decomposer taxa were moderately well represented (over half of the individuals), with a substantial proportion of 'dry' decomposers (about a fifth of the assemblage, although only seven individuals!)

There were four individuals of Anotylus nitidulus Unfortunately the ecological significance of this species in archaeological assemblages is poorly understood In addition, it may have been abundant in the 'background fauna' in many places in the past Only two other taxa were represented by more than one individual (Cryptophagus sp and Lathridius minutus group) These, together with some of the other recorded taxa, are seen as evidence of a strong human influence Indeed, apart from the marine littoral Cercyon depressus (Hansen 1987) the whole assemblage would be unremarkable from, for example, Anglo-Scandinavian Coppergate, York (Kenward and Hall forthcoming; Hall and Kenward, forthcoming)

Beyond this clear influence of human beings the interpretation of this group is diflicult It may have formed m the open, with the addition of species from human ejectamenta The scale insects may have been imported with branches used for wattle

Context **50** [?open area build-up, C13/14]

Mid grey-brown, crumbly, sandy silty clay with traces of stones 2-20 mm, brick/tile, charcoal, wood, fish bone and a fleck of marine mollusc shell

There was nothing but a trace of coal to 5 mm in the flot; the residue consisted mostly of coal to 10 mm and sand, with a little eroded fish bone

Context **103** [base of floor deposit]

Dark grey (with paler grey-brown to orange-brown patches or thin lenses), crumbly (working plastic), silty clay sand with much fine charcoal or soot

There were a few identifiable plant remains in the tiny flot, the only one present as moderate numbers of seeds being toad-rush (Juncus bufonius), likely to have been blown or brought with mud on feet from plants growing on wet paths in the area The remaining plant taxa offered little further interpretative information The residue consisted mostly of sand and fine coal (to 15 mm) with a little fish and ?mammal bone

There were very few insect remains - only single individuals of four taxa of adult beetles, and a single psyllid bug nymph The beetles included three taxa typical of occupation deposits

Context **129** [occupation deposit, C14/15]

Mid grey-brown with thin layers of orange-brown, crumbly to layered, working plastic, very humic, clay silt with traces of marine mollusc shell

The small flot mainly comprised very decayed plant detritus with two individuals of probable weed taxa The residue was mostly sand with much coal to 10 mm and a few fragments of bone

Context **138** [occupation deposit, C14/15]

Buff, dark brown and orange, plastic, very slightly sandy silty clay with traces of charcoal and fish bone

The flot and residue were unusual for this series of samples in being dominated by a single plant taxon: seeds of dyer's rocket or weld (Reseda luteola) were abundant in both Other plant taxa included a few typical weeds of medieval urban occupation deposits and there was a little fish bone, some of it burnt Charcoal to 10 mm was quite common in the residue

Weld was an important dyeplant through the Middle Ages and into the early modern period, collected or grown for its strong yellow dye, typically obtained from the flowering spikes at the time of seed set It is quite likely that the archaeological evidence for its use would be a concentration of seeds in a deposit containing dyebath waste Unfortunately, however, it is a prolific seed producer and a common weed of disturbed places and is quite frequently recorded from medieval urban deposits where, as here, there is no supporting evidence for dyeing or other aspects of textile working, although sample 147 produced a hint (in the form of tentatively identified ectoparasites of sheep) that wool may have been processed on the site

Context **145** [levelling/dump deposit]

Bright red-orange, crumbly more or less pure sand with traces of ?rotted bone, ?charcoal and marine mollusc shell

The tiny flot yielded only a single very decayed rush (Juncus sp.) seed, the residue consisting of red-brown rotted sandstone and sand with a trace of charcoal to 10 mm.

Context **147** [occupation deposit; C14]

Mid grey-brown with thin layers of mid orange-brown, crumbly, layered, very humic silty sand with fine and coarse herbaceous detritus and traces of marine mollusc shell

The flot and residue for the subsample of this sample examined were rather rich in plant remains. For the most part they were weeds of disturbed and cultivated soils, but there was a component of bracken (Pteridium aquilinum) stalk and frond fragments that was quite prominent. One likely explanation for this is that it represents litter from a floor but clearly there was a range of human occupation debris, for eggshell, eggshell membrane, cockle and mussel shell fragments, wood chips, fish bone, a fish otolith and charcoal were all present, the last of these in moderate amounts The most abundant of the 'weeds' were Atriplex sp(p) , Brassica rapa, Anthemis cotula and Ranunculus sardous, perhaps most likely to occur in gardens or waste places, but there were also some typical cornfield taxa (Chrysanthemum segetum, Scandix pecten-veneris) The only other 'useful' plants were flax or linseed, Linum usitatissimum, of which a single seed was recorded and bread/club wheat (Triticum aestivo-compactum), of which a single charred grain was noted The presence of a single fruit of sea arrow-grass (Triglochin maritima) in a deposit formed so close to the sea is perhaps not surprising, although this taxon is recorded from Roman and medieval deposits as far inland as York, where it is thought possibly to have arrived in herbivore dung from animals grazed on coastal salt-marsh

A single whipworm (Trichuris sp) egg was recorded from the subsample examined for evidence of intestinal parasites Such 'trace' amounts of eggs cannot be regarded as interpretatively significant

The insect remains were chemically fairly well preserved, but were very fragmentary, with a large number of tiny pieces of cuticle which would have been prohibitively time-consuming to record The material was accordingly rapid-scan recorded

The assemblage was notable for the presence of 'many' human lice, Pediculus humanus The identification of these was confirmed by the presence of male genitalia in two entire abdomens; they were identical to the material illustrated by Ewing (1932) Both adults and nymphs were present

In addition to the human lice there were remains of an adult and a puparium of what appeared to be the sheep ked Melophagus ovinus, and two Damalinia sp lice, perhaps also from sheep

There were about 39 adult beetles of 35 taxa Clearly caution must be exercised in interpreting so small a group, but it included some characteristic elements A fifth of the remains were of 'outdoor' taxa Some of these may, conceivably, have been imported in cut, hay-like, vegetation, but this is highly speculative Two thirds of the assemblage was contributed by decomposers, a substantial proportion of these being typically associated with relatively dry habitats Atomaria nigripennis, with three individuals the most abundant taxon, is a strong synanthrope associated in archaeological deposits with a group of species regarded as typical of buildings ('house fauna', see above) Here it was found with several other taxa of similar affinities· Xylodromus ?concinnus, Mycetaea hirta, Aglenus brunneus, Tenebrio obscurus and ?Blaps sp being particularly significant Other component of the fauna, if they lived in situ, indicate rather more foul conditions

Context 161 [occupation deposit; C14]

Dark grey to mid orange-brown (with evidence of oxidation), crumbly (working just plastic), slightly sandy clay silt with traces of stones 6-20 mm, wood fragments, fish scale and marine mollusc shell

There was a small assemblage of plant remains in the flot and residue, most of them weeds and other plants typical of medieval urban occupation deposits Pteridium stalk and frond fragments were again present, and there was a single fragment of a flax seed capsule and two seeds of this plant The presence of cereal/grass stalk and leaf/stem epidermis fragments perhaps indicates that this deposit, too, contained litter The residue consisted mostly of decayed (including ?worked) wood fragments, quartz sand and other plant detritus

Insects were not very abundant, there were 31 individuals of 25 beetle and bug taxa of the groups used in calculating statistics, while other remains included an unidentifiable flea There were also 'many' mites A large proportion of the fossils were fragmentary

Apart from the substantial proportion of decomposers (two thirds) the main statistics were unremarkable in view of the small size of the assemblages

There were three Cercyon depressus, associated with organic litter, especially wrack, at the high tide line Other remains were primarily of species likely to occur in or around buildings, but there were single specimens of Ulopa reticulata and Bradycellus ruficollis, associated with heath/moor vegetation, where there is heather (Calluna vulgaris) These were perhaps imported with cut vegetation

Context 165 [?marine deposits, C14]

Mid grey-brown, crumbly (working plastic), sandy clay silt with herbaceous detritus, traces of stones 20-60 mm and moderate amounts of wood fragments

The small assemblage of plant remains from the flot and residue included moderate amounts of bracken stalk, especially in the 2-4 mm fraction There was some grass 'chaff and stalk material, perhaps also from litter A half-achene of hemp (Cannabis sativa) and a few weed and other taxa made up the rest of the assemblage

Insect remains were rare (N = 14, S = 12) and often highly fragmentary There were 'many' mites, 'several' fly puparia, and assorted other remains including unidentifiable fragments of a flea Several taxa associated with human occupation were recorded, but little could be made of this group

This was clearly not a purely 'marine' deposit, indeed, the biota gave no evidence at all for such an origin

Context 166 [?marine deposits/?ditch fill]

Slightly heterogeneous, slightly orange, mid brown (with some lumps of grey clay and patches of black oxidised sandy material), sandy silt with traces of stones 2-6 mm and abundant charcoal to 15 mm, some roots present which might be ancient

Bracken stalk and frond fragments were again moderately frequent in this sample and fragments of grass 'chaff and probably also vegetative fragments points again to a component of probable 'litter' Weeds were also quite frequent and diverse, and there was a further half-achene of hemp and a seed of flax A few mosses were present, mostly represented by only one or two shoot fragments. These were all of the larger, branched kinds frequently recorded from urban archaeological deposits and likely to have been used in buildings or for sanitary purposes These, and the presence of heather or

ling (Calluna vulgaris) shoot fragments and a flower capsule, may merely indicate another component of the litter evidenced by the bracken, however

Few invertebrates were present There were 'many' mites, 'several' fly puparia, a probable sheep ked (Melophagus ovinus) and a flea, assorted other remains and 22 individuals of 21 beetle and bug taxa Chemical preservation was variable, and the remains were rather fragmentary

'Outdoor' forms were proportionally abundant (over a third of the individuals) and decomposers not well represented (about two-fifths of the assemblage) Only Anotylus nitidulus, a possible background element, was represented by more than one individual (there were two) There were some species typical of human occupation sites but no clear interpretation could be made

Taking the biota as a whole, there is nothing to suggest that this deposit is other than occupation build-up

Context 167 [?marine deposits/?ditch fill, above natural]

Black to mid orange-grey-brown to buff (with darker/paler coloration resulting from oxidation/reduction), plastic (with some thin beds of more or less pure pale grey-brown clay), slightly sandy silty clay with traces of stones 2-6 mm and of marine mollusc shell
The tiny flot gave only a few identifiable plant remains, mostly weeds There was a little bark and mussel shell (both to 30 mm) in the residue, but otherwise this consisted only of decayed wood and sand

The small biota recorded suggests that this deposit probably formed sub-aerially, it was certainly not primarily a marine deposit

Context **206** [demolition build-up; C14/15]

Mid grey-brown with orange- and purplish-brown blotches, crumbly (working plastic), slightly sandy silty clay, with traces of stones 2-6 mm, coal, mammal bone, and marine mollusc, and moderate amounts of charcoal

There were single seeds of toad-rush and a poppy species in the flot, the residue consisted of sand and angular gravel (to 25 mm), with fish bone to 25 mm and some coal to 15 mm

Discussion

The unavoidably very limited scale of excavation placed severe limits on the potential of the biological remains as a source of information about ecological conditions and human activity on the site Bulk-sieving of the more substantial contexts and the collection of larger samples might well have provided considerably more information had it been feasible, providing clearer interpretative information

Two particular aspects of the evidence recovered are worthy of further discussion The first of these is the presence in several samples of both plant and insect remains suggestive of litter - in the sense of dryish coarse straw-like plant debris The bulk of this is in the form of bracken stalk and pinnule fragments, but there was some grass-like detritus in 165, for example Amongst the insect assemblages, there were small quantities of 'house fauna' (see especially context 147) The traces of heather in 166 might also be part of this 'litter' component and heather-associated insects were recorded from 161, although there were no remains of the plant there Sample 147 also gave a weak hint of hay-like cut vegetation from the insects, but the tenuousness of the argument here must be emphasised

Samples 165, 166, 167 were from cuts thought by the excavator to have fills perhaps of marine origin Apart from a single sea arrow-grass (Triglochin maritima) fruit m the sample from 147, small numbers of Cercyon depressus from contexts 7 and 161, and the marine mollusc shell from several samples, there was no clear evidence for deposition of marine sediment In particular there were no examples of small marine invertebrates or calcareous algae, both of which might be anticipated to be present had sea water deposited fine sediment here. The marine influence indicated by Cercyon depressus is hardly surprising bearing in mind the location of the sites. These beetles may have lived on the site in organic matter which had been flooded by salt water, but they may equally have had a background origin A single specimen of C. depressus was found in deposits at the crannog site at Buiston, Ayrshire (Kenward et al 1993) and considered to have been of background origin; that this beetle may be abundant in deposits laid down by salt water is clear from records of large numbers of individuals from the Chapel Lane Staith site in Hull (Kenward 1979) The lack of other 'wrack' taxa (Backlund 1945) at Baxtergate suggests a background origin to be quite likely

In general, where preservation was sufficiently good, and where there were adequate numbers of remains, the samples from this site appeared to be from occupation deposits In particular, the presence of many human louse remains in the sample from the occupation deposit 147 strongly suggests that this was either a floor layer or was an accumulation which received sweepings from such a layer.

The fragmented nature of much of the insect material, combined with about average chemical preservation, is of note The remains may have been crushed by trampling during deposition, but such damage might have resulted from recent drying out of the deposits or compression by heavy plant

The sheep keds, unfortunately only tentatively identified, and the associated Damalinia lice, may have come from wool that was cleaned on the site, but too few remains were present for any definite origin to be identified

The rather limited information obtained from this investigation should not act as a discouragement to further investigation of biological remains from sites in Whitby This material has proved the potential for preservation in many sites m at least parts of the town Whitby is of interest as a representative of small towns somewhat isolated by land but with good sea communications· a likely entry point for trade materials and accidentally imported alien plants and animals. In addition, it is as important from an historical point of view to understand conditions in small towns like Whitby as well as in grander ones such as York, London and Carlisle

It is important that intensive sampling is undertaken during any further excavations in Whitby, it is better to collect material and subsequently reject it following assessment than the collect too selectively and lose potentially important material

Appendices

Appendix 1. Plant remains and other components recorded from a series of samples from 63-4 Baxtergate, Whitby (WB2). Order is taxonomic, following *Flora Europaea* (Tutin *et al.* 1964-80) and Smith (1978). Materials other than identifiable plant remains are given after the species lists.

Context 7	Sample 7/T
Pteridium aquilinum (pinn fgts)	1
Corylus avellana	1
Polygonum persicaria	1
Polygonum lapathifolium	1
Rumex sp(p)	1
Chenopodium album	2
Atriplex sp(p).	2
Agrostemma githago (sf)	1
Hyoscyamus niger	1
Gramineae	1
Triticum/Secale ('bran' fgts)	1
beetles	1
charcoal	1
fly puparia	2
sand	2
stones	1
twig fgts	1
wood fgts	3

Context 50	Sample 50/T
no identifiaole plant taxa	
coal	2
fish bone	1
sand	3

Context 103	Sample 103/T
Potentilla cf reptans	1
Anagallis arvensis	1
Solanum nigrum	1
Juncus bufonius	2
Carex sp(p).	1
beetles	1
charcoal	1
coal	2
fish bone	1

Context 129	Sample 129/T
Chenopodiaceae	1
Conium maculatum	1
charcoal	2
coal	1
fish bone	1
sand	3

Context 138	Sample 138/T
Urtica dioica	1
Reseda luteola	4
Conium maculatum	1
Galeopsis Subgenus Galeopsis	1
Sambucus nigra (sf)	1
beetles	1
burnt fish bone	1
charcoal	1
coal	1
fish bone	1
sand	2

Context 145	Sample 145/T
Juncus sp(p).	1
charcoal	1
sand	4

Context 147	Sample 147/T
Pteridium aquilinum (stalk fgts)	2
Pteridium aquilinum (pinn fgts)	1
Corylus avellana	2
Polygonum aviculare agg	1
Rumex sp(p)	1
Rumex acetosella agg	1
Chenopodium album	1
Atriplex sp(p).	2
Ranunculus Section Ranunculus	1
Ranunculus sardous	1
Ranunculus flammula	1
Brassica rapa	2
Linum usitatissimum	1
Viola sp(p).	1
Scandix pecten-veneris	1
Aethusa cynapium	1
Solanum nigrum	1
Anthemis cotula	1
Anthemis cotula (ch)	1
Chrysanthemum segetum	1
Lapsana communis	1
Triglochin maritima	1
Juncus bufonius	1
Gramineae	1
Triticum aestivo-compactum	1
Danthonia decumbens	1
Carex sp(p).	2
Neckera complanata	1
beetles	2
charcoal	2
cockle shell fgts	1
eggshell fgts	1
eggshell membrane fgts	1
fish bone	1
mussel shell fgts	1
otoliths	1
sand	3
wood chips	1
wood fgts	2

Context 161	Sample 161/T
Pteridium aquilinum (stalk fgts)	1
Pteridium aquilinum (pinn fgts)	1
Corylus avellana	1
Polygonum aviculare agg.	1
Polygonum persicaria	1
Chenopodium album	1
Agrostemma githago (sf)	1
Linum usitatissimum	1
Linum usitatissimum (caps fgts)	1
Galeopsis Subgenus Galeopsis	1
Prunella vulgaris	1
Hyoscyamus niger	1
Anthemis cotula	1
Lapsana communis	1
Gramineae (epid fgts)	1
Gramineae/Cerealia (c/n)	1
Carex sp(p)	1
Sphagnum sp(p) (lvs)	1

beetles	1
coal	1
fish bone	2
periwinkle shells	1
sand	2
stones	1
wood fgts	2

Context 165	Sample 165/T
Pteridium aquilinum (stalk fgts)	2
Corylus avellana	1
Cannabis sativa	1
Polygonum aviculare agg.	1
Polygonum lapathifolium	1
Rumex acetosella agg	1
Atriplex sp(p)	1
Anthemis cotula	1
Carduus/Cirsium sp(p).	1
Gramineae/Cerealia (w/l glb)	1
Gramineae/Cerealia (c/n)	1
beetles	1
fish bone	1
sand	2
stones	1
wood chips	1
wood fgts	2

Context 166	Sample 166/T
Pteridium aquilinum (stalk fgts)	2
Pteridium aquilinum (pinn fgts)	2
Alnus glutinosa (b/bs)	1
Corylus avellana	1
Cannabis sativa	1
Polygonum aviculare agg	1
Polygonum persicaria	1
Polygonum lapathifolium	1
Atriplex sp(p).	2
Agrostemma githago (sf)	1
Thlaspi arvense	1
Rubus fruticosus agg.	1
Rosa sp(p) (prickles)	1
Leguminosae (pods/fgts)	1
Linum usitatissimum	1
Aethusa cynapium	1
Calluna vulgaris (caps)	1
Calluna vulgaris (sht fgts)	1
Myosotis sp(p)	1
Galeopsis Subgenus Galeopsis	1
Hyoscyamus niger	1
Knautia arvensis	1
Compositae (inv fgts)	1
Anthemis cotula	1
Chrysanthemum segetum	1
Carduus/Cirsium sp(p).	1
Gramineae (w/l chaff)	1
Gramineae/Cerealia (c/n)	1
Triticum/Secale ('bran' fgts)	1
Dicranum sp(p)	1
Neckera complanata	1
Thuidium tamariscinum	1
Calliergon cuspidatum	1
Homalothecium sericeum/lutescens	1
Hypnum cf. cupressiforme	1
Rhytidiadelphus triquetrus	1
Hylocomium splendens	1
beetles	1
charcoal	1
dicot lf fgts	1
fish bone	1
fly puparia	1
mammal bone	1
sand	3
stones	1
twig fgts	1
wood fgts	2

Context 167	Sample 167/T
Urtica dioica	1
Rumex acetosella agg.	1
Atriplex sp(p).	1
Aphanes microcarpa	1
Anthemis cotula	1
Carex sp(p)	1
bark fgts	1
fish bone	1
mussel shell fgts	1
sand	2
stones	1
wood fgts	1

Context 206	Sample 206/T
Papaver argemone	1
Juncus bufonius	1
coal	1
fish bone	1
sand	3
stone	1

Appendix 2. Statistics for assemblages of plant remains from 63-4 Baxtergate, Whitby (WB2). For explanation of AIV, see text. Below is a complete list of taxa with scores in groups used to calculate AIVs, definitions of the groups and the parts of the plants recorded.

Context 7 Sample 7/T Number of taxa 11

Group		Number of taxa	%taxa	AIV
Uses				
	FOOS	2	18	6
	USEF	1	9	2
Vegetation				
	CHEN	5	45	16
	BIDE	3	27	8
	CAKI	1	9	4
	QUFA	1	9	3
	SECA	1	9	3
	ARTE	1	9	2
	NACA	1	9	2
	QUER	1	9	2
	RHPR	1	9	2
Unclassified				
	UNCL	2	18	0

Context 50 Sample 50/T Number of taxa

no identifiable plant remains

Context 103 Sample 103/T Number of taxa 5

Group		Number of taxa	%taxa	AIV
Vegetation				
	ISNA	1	20	6
	CHEN	2	40	4
	SECA	2	40	4
	MOAR	1	20	1
Unclassified				
	UNCL	1	20	0

Context 129 Sample 129/T Number of taxa 2

Group		Number of taxa	%taxa	AIV
Vegetation				
	ARTE	1	50	2
	MOAR	1	50	2
Unclassified				
	UNCL	1	50	0

Context 138 Sample 138/T Number of taxa 5

Group		Number of taxa	%taxa	AIV
Uses				
	DYES	1	20	12
	FOOS	1	20	3
Vegetation				
	ARTE	4	80	18
	EPIL	2	40	4
	QUFA	2	40	4
	RHPR	2	40	4
	ALNE	1	20	2
	CHEN	1	20	2
	MOAR	1	20	2
	SECA	1	20	2
Ecology				
	CALC	1	20	8

Context 145 Sample 145/T Number of taxa 1

Group		Number of taxa	%taxa	AIV
Unclassified				
	UNCL	1	100	0

Context 147 Sample 147/T Number of taxa 28

Group		Number of taxa	%taxa	AIV
Uses				
	FOOS	3	11	12
	USEF	2	7	6
	FOOO	2	7	5
	FIBR	1	4	3
Vegetation				
	CHEN	13	46	32
	SECA	10	36	20
	NACA	4	14	10
	RHPR	3	11	8
	ARTE	3	11	7
	QUFA	2	7	7
	MOAR	3	11	6
	QUER	2	7	6
	ISNA	2	7	5
	PLAN	2	7	5
	BIDE	1	4	4
	CAKI	1	4	4
	ASTE	1	4	3
	EPIL	1	4	2
	FEBR	1	4	2
	LITT	1	4	2
	SCCA	1	4	2
	SESC	1	4	2
	PHRA	1	4	1
Mosses				
	LIGN	1	4	2
	SLIT	1	4	2
	WOOF	1	4	2
Ecology				
	FUGE	1	4	2
Unclassified				
	UNCL	4	14	0

Context 161 Sample 161/T Number of taxa 18

Group		Number of taxa	%taxa	AIV
Uses				
	FOOS	3	17	9
	FIBR	2	11	6
	USEF	3	17	5
	FOOO	2	11	4
Vegetation				
	CHEN	7	39	15
	SECA	5	28	11
	ARTE	3	17	6
	RHPR	3	17	6
	PLAN	2	11	5
	NACA	2	11	4
	QUER	2	11	4
	QUFA	1	6	3
	BIDE	1	6	2
	EPIL	1	6	2
	MOAR	1	6	2
Mosses				
	BOGS	1	6	3
Unclassified				
	UNCL	2	11	0

Context 165 Sample 165/T Number of taxa 11

Group		Number of taxa	%taxa	AIV
Uses				
	USEF	3	27	6
	FIBR	1	9	3
	FOOO	1	9	3
	FOOS	1	9	3
Vegetation				
	CHEN	6	55	11
	NACA	2	18	6
	PLAN	2	18	5
	BIDE	2	18	4
	QUER	1	9	4
	RHPR	1	9	4
	SECA	2	18	4
	QUFA	1	9	3
	CAKI	1	9	2
	EPIL	1	9	2
	SESC	1	9	2
Unclassified				
	UNCL	1	9	0

Context 166 Sample 166/T Number of taxa 36

Group		Number of taxa	%taxa	AIV
Uses				
	FOOS	4	11	12
	USEF	3	8	9
	FIBR	2	6	6
	FOOO	2	6	6
	WOOD	1	3	1
Vegetation				
	CHEN	10	28	21
	NACA	5	14	16
	SECA	7	19	16
	RHPR	3	8	10
	BIDE	3	8	8
	QUER	2	6	8
	ARTE	3	8	6
	QUFA	2	6	5
	CAKI	1	3	4
	OXSP	2	6	4
	ALNE	1	3	3
	FEBR	1	3	3
	PLAN	1	3	3
	EPIL	1	3	2
	MOAR	1	3	2
Mosses				
	LIGN	4	11	7
	WOOF	4	11	7
	GRAS	3	8	6
	SLIT	3	8	6
	HEMO	3	8	5
	DUNS	2	6	4
	OLIT	2	6	3
	SOIL	2	6	3
	FENS	1	3	2
	MARS	1	3	2
	UNCL	1	3	0
Ecology				
	CALC	1	3	2
	FUGE	1	3	2
Unclassified				
	UNCL	5	14	2

Context 167 Sample 167/T Number of taxa 6

Group		Number of taxa	%taxa	AIV
Vegetation				
	CHEN	3	50	6
	EPIL	2	33	4
	SECA	2	33	4
	SESC	2	33	4
	ALNE	1	17	2
	ARTE	1	17	2
	BIDE	1	17	2
	CAKI	1	17	2
	NACA	1	17	2
	PLAN	1	17	2
	QUFA	1	17	2
	RHPR	1	17	2
Unclassified				
	UNCL	1	17	0

Context 206 Sample 206/T Number of taxa 2

Group		Number of taxa	%taxa	AIV
Vegetation				
	ISNA	1	50	3
	SECA	1	50	3
	CHEN	1	50	2

Appendix 3. Scores for taxa recorded from 63-4 Baxtergate, Whitby (WB2) used to calculate AIVs in Appendix 2. The groups are explained below.

Aethusa cynapium	mericarp(s)	CHEN = 2; SECA = 2
Agrostemma githago (sf)	seed fragment(s)	SECA = 3
Alnus glutinosa (b/bs)	bud(s) and/or bud-scale(s)	ALNE = 3; WOOD = 1
Anagallis arvensis	seed(s)	CHEN = 2; SECA = 2
Anthemis cotula	achene(s)	CHEN = 2; SECA = 2
Anthemis cotula (ch)	charred achene(s)	CHEN = 2; SECA = 2
Aphanes microcarpa	achene(s)	SECA = 2; SESC = 2
Atriplex sp(p).	seed(s)	BIDE = 2; CAKI = 2; CHEN = 2
Brassica rapa	seed(s)	ARTE = 2; CHEN = 3; EOOO = 1
Calliergon cuspidatum	leaf/leaves and/or shoot fragment(s)	EENS = 2, GRAS = 2; MARS = 2
Calluna vulgaris (caps)	capsule(s)	NACA = 3; OXSP = 2
Calluna vulgaris (sht fgts)	shoot fragment(s)	NACA = 3; OXSP = 2
Cannabis sativa	achene(s)	CHEN = 1; FIBR = 3, FOOO = 3
Carduus/Cirsium sp(p).	achene(s)	UNCL = 0
Carex sp(p).	nutlet(s)	UNCL = 0
Chenopodiaceae	seed(s)	UNCL = 0
Chenopodium album	seed(s)	CHEN = 3
Chrysanthemum segetum	achene(s)	FUGE = 2, SECA = 3
Compositae (inv fgts)	involucre fragment(s)	UNCL = 0
Conium maculatum	mericarp(s)	ARTE = 2; MOAR = 2
Corylus avellana	nut(s) and/or nutshell fragment(s)	FOOS = 3; QUFA = 3
Danthonia decumbens	caryopsis/es	MOAR = 2; NACA = 2
Dicranum sp(p).	leaf/leaves and/or shoot fragment(s)	UNCL = 0
Galeopsis Subgenus Galeopsis	nutlet(s)	ARTE = 2; CHEN = 2; EPIL = 2; SECA = 2
Gramineae	waterlogged caryopsis/es	UNCL = 0
Gramineae (epid fgts)	stem/leaf epidermis fragment(s)	UNCL = 0
Gramineae/Cerealia (c/n)	culm node(s)	USEF = 1
Gramineae/Cerealia (w/l glb)	waterlogged glume-base(s)	USEF = 1
Homalothecium sericeum/lutescens	leaf/leaves and/or shoot fragment(s)	CALC = 2; DUNS = 2; LIGN = 2; OLIT = 2, SLIT = 2; SOIL = 2
Hylocomium splendens	leaf/leaves and/or shoot fragment(s)	GRAS = 2; HEMO = 2; WOOF = 2
Hyoscyamus niger	seed(s)	ARTE = 2; CHEN = 2
Hypnum cf. cupressiforme	leaf/leaves and/or shoot fragment(s)	HEMO = 1; LIGN = 1; OLIT = 1; SOIL = 1; WOOF = 1
Juncus bufonius	seed(s)	ISNA = 3
Juncus sp(p).	seed(s)	UNCL = 0
Knautia arvensis	fruit(s)	FEBR = 3; MOAR = 2
Lapsana communis	achene(s)	ARTE = 2; CHEN = 2; RHPR = 2; SECA = 2
Leguminosae (pods/fgts)	pod(s) and/or pod fragment(s)	UNCL = 0
Linum usitatissimum	seed(s)	FIBR = 3; FOOO = 3; FOOS = 3
Linum usitaussimum (caps fgts)	capsule fragment(s)	FIBR = 3; FOOO = 1; FOOS = 3
Myosotis sp(p)	nutlet(s)	UNCL = 0
Neckera complanata	leaf/leaves and/or shoot fragment(s)	LIGN = 2; SLIT = 2;

		WOOF = 2
Papaver argemone	seed(s)	CHEN = 2; SECA = 3
Polygonum aviculare agg.	fruit(s)	CHEN = 2; PLAN = 3; SECA = 2
Polygonum lapathifolium	fruit(s)	BIDE = 2; CHEN = 2
Polygonum persicaria	fruit(s)	BIDE = 2; CHEN = 2
Potentilla cf. reptans	achene(s)	MOAR = 1
Prunella vulgaris	nutlet(s)	MOAR = 2; PLAN = 2
Pteridium aquilinum (pinn fgts)	pinnule fragment(s)	NACA = 2; QUER = 2; RHPR = 2; USEF = 2
Pteridium aquilinum (stalk fgts)	stalk fragment(s)	NACA = 2; QUER = 2; RHPR = 2; USEF = 2
Ranunculus Section Ranunculus	achene(s)	ARTE = 1; CHEN = 1, FEBR = 2; MOAR = 2; PHRA = 1; QUFA = 1; SECA = 1
Ranunculus flammula	achene(s)	LITT = 2; MOAR = 2; SCCA = 2
Ranunculus sardous	achene(s)	CHEN = 2; ISNA = 2; SECA = 2
Reseda luteola	seed(s)	ARTE = 3; CALC = 2; DYES = 3
Rhytidiadeiphus triquetrus	leaf/leaves and/or shoot fragment(s)	DUNS = 2; GRAS = 2; HEMO = 2
Rosa sp(p) (prickles)	prickle(s)	UNCL = 2
Rubus fruticosus agg.	seed(s)	ARTE = 2; FOOS = 3; NACA = 2; QUFA = 2; RHPR = 2
Rumex acetosella agg.	fruit(s)	CHEN = 2; EPIL = 2; NACA = 2; PLAN = 2; SESC = 2
Rumex sp(p)	fruit(s)	UNCL = 0
Sambucus nigra (sf)	seed fragment(s)	FOOS = 3, QUFA = 2; RHPR = 2
Scandix pecten-veneris	mericarp(s)	CHEN = 2; SECA = 2
Solanum nigrum	seed(s)	CHEN = 2; SECA = 2
Sphagnum sp(p). (lvs)	leaf/leaves	BOGS = 3
Thlaspi arvense	seed(s)	CHEN = 2; SECA = 2
Thuidium tamariscinum	leaf/leaves and/or shoot fragment(s)	LIGN = 2; SLIT = 2; WOOF = 2
Triglochin maritima	carpel(s)	ASTE = 3
Triticum aestivo-compactum	charred caryopsis/es	FOOS = 3
Triticum/Secale ('bran' fgts)	waterlogged periderm fragments	FOOS = 3
Urtica dioica	achene(s)	ALNE = 2; ARTE = 2; EPIL = 2; QUFA = 2; RHPR = 2
Viola sp(p).	seed(s)	UNCL = 0;

Uses

DYES	Plants used in dyeing and mordanting
FIBR	Plants used for extraction of fibre
FOOF	Plants used as flavouring, including herbs and spices
FOOO	Plants with oil-seeds
FOOS	Plants forming a major component of diet - cereals, pulses, nuts, fruit,

	vegetables
USEF	Plants used in ways other than those covered by other groups in this category
WOOD	Parts of woody plants other than fruits/seeds

Vegetation

ALNE	Plants of alder carr
ARTE	Nitrophilous tall-herb weed communities of waste places, river banks, waysides and hedgerows
ASTE	Plants of upper salt-marsh and sea-cliff vegetation
BIDE	Nitrophilous weed communities of pond edges, ditches and other places subject to periodic inundation
CAKI	Nitrophilous weedy communities of shingle beaches and sandy strandlines
CHEN	Nitrophilous weed communities of cultivated and other disturbed land (especially rootcrop fields and gardens)
EPIL	Nitrophilous woodland edge and clearing communities
FEBR	Plants of drier, typically calcareous, grassland
ISNA	Short-lived dwarf rush communities of winter-wet (often sandy) habitats, pond edges, etc.
LITT	Rooted aquatic vegetation at the edge of (usually) oligotrophic waters
MOAR	Plants of grassland, including the wetter hay meadows and pastures, and adjacent paths
NACA	Plants of grass and dwarf-shrub- (typically *Calluna*-) dominated dry heaths and moors
OXSP	Plants of raised-bogs
PHRA	Freshwater reedswamp communities
PLAN	Plant communities of trampled places
QUER	Deciduous woodland on poorer soils
QUFA	Deciduous woodland on better soils
RHPR	Woodland edge scrub communities
SCCA	Communities of poor and intermediate fens (acid to mildly basic peat)
SECA	Weeds of cereal fields
SESC	Established vegetation of sand dunes and other sandy acidic soils

Ecology

CALC	Calcicole plants
FUGE	Calcifuge plants

Mosses

BOGS	Mosses found in bogs
DUNS	Mosses of dune slacks
FENS	Mosses of fens
GRAS	Grassland mosses
HEMO	Mosses of heathland/moorland
LIGN	Mosses of living and dead bark and wood

MARS	Mosses of marshes
OLIT	Mosses of rocks, stones and walls in unshaded places
SLIT	Mosses of shaded, moist rocks, stones, and walls
SOIL	Mosses of bare soil, especially arable fields
WOOF	Mosses of woodland floor habitats, principally humus and litter
UNCL	Unclassified in any group

Appendix 4. Main statistics and species lists in rank order for the insect assemblages from 63-4 Baxtergate, Whitby (WB2). Nomenclature follows Kloet and Hincks (1964-7). Main statistics (other than S and N) are given only where N was greater than 9.

Site: WB2 Context: 7 Sample: 7/T - beetle/bug main statistics

Erosion = 2 Fragmentation = 4; Weight = 1.000kg

Number of individuals estimated as	N =	36
Number of taxa	S =	31
Index of diversity (alpha)	alpha =	104
Standard error of alpha	SE alpha =	48
Number of 'certain' outdoor taxa	SOA =	6
Percentage of 'certain' outdoor taxa	%SOA =	19
Number of 'certain' outdoor individuals	NOA =	6
Percentage of 'certain' outdoor individuals	%NOA =	17
Number of 'certain' and probable outdoor taxa	SOB =	10
Percentage of 'certain' and probable outdoor taxa	%SOB =	32
Number of 'certain' and probable outdoor individuals	NOB =	10
Percentage 'certain' and probable outdoor individuals	%NOB =	28
Diversity index for OB not calculated, NOB = SOB or NOB < 20		
Number of aquatic taxa	SW =	1
Percentage of aquatic taxa	%SW =	3
Number of aquatic individuals	NW =	1
Percentage of aquatic individuals	%NW =	3
Number of damp ground/waterside taxa	SD =	1
Percentage of damp ground/waterside taxa	%SD =	3
Number of damp ground/waterside individuals	ND =	4
Percentage of damp ground/waterside individuals	%ND =	11
Number of strongly plant-associated taxa	SP =	4
Percentage of strongly plant-associated taxa	%SP =	13
Number of strongly plant-associated individuals	NP =	4
Percentage of strongly plant-associated individuals	%NP =	11
Number of heathland/moorland taxa	SM =	0
Number of heathland/moorland individuals	NM =	0
Percentage of heathland/moorland individuals	%NM =	0
Number of wood-associated taxa	SL =	2
Number of wood-associated individuals	NL =	2
Percentage of wood-associated individuals	%NL =	6
Number of decomposer taxa	SRT =	15
Percentage of decomposer taxa	%SRT =	48
Number of decomposer individuals	NRT =	20
Percentage of decomposer individuals	%NRT =	56
Number of 'dry' decomposer taxa	SRD =	5
Percentage of 'dry'decomposer taxa	%SRD =	16
Number of 'dry' decomposer individuals	NRD =	7
Percentage of 'dry'decomposer individuals	%NRD =	19
Number of 'foul' decomposer taxa	SRF =	4
Percentage of 'foul' decomposer taxa	%SRF =	13
Number of 'foul' decomposer individuals	NRF =	4
Percentage of 'foul' decomposer individuals	%NRF =	11
Diversity index for RT not calculated, NRT = SRT or NRT < 20		
Number of individuals of grain pests	NG =	0
Percentage of individuals of grain pests	%NG =	0
Number of individuals of grain pests	NG =	0
Number of uncoded taxa	SU =	7
Percentage of uncoded individuals	PNU =	19

Site: WB2 Context: 7 Sample: 7/T - species list in rank order

Taxon	Number	%	Rank	Ecodes
Anotylus nitidulus (Gravenhorst)	4	11	1	rt d
Cryptophagus sp. A	2	6	2	rd
Lathridius minutus group	2	6	2	rd
Auchenorhyncha sp.	1	3	4	oa p
Psylloidea sp.	1	3	4	oa p
?Pterostichus sp.	1	3	4	ob
Carabidae sp.	1	3	4	ob
Helophorus aquaticus or grandis	1	3	4	oa w
Cercyon depressus Stephens	1	3	4	rf
Phyllodrepa ?floralis (Paykull)	1	3	4	rt
Gyrohypnus sp.	1	3	4	rt
Xantholinus glabratus (Gravenhorst)	1	3	4	rt
Philonthus sp. A	1	3	4	u
Philonthus sp. B	1	3	4	u
Aleocharinae sp.	1	3	4	u
Aleocharinae sp. A	1	3	4	u
Aleocharinae sp. B	1	3	4	u
?Geotrupes sp.	1	3	4	oa rf
Aphodius granarius (Linnaeus)	1	3	4	ob rf
Aphodius sp.	1	3	4	ob rf
?Melolonthinae/Rutelinae/Cetoninae sp.	1	3	4	oa p
Clambus sp.	1	3	4	rt
Anobium ?punctatum (Degeer)	1	3	4	1
Cryptophagus sp. B	1	3	4	rd
Atomaria sp.	1	3	4	rd
?Ephistemus globulus (Paykull)	1	3	4	rd
Corticaria sp.	1	3	4	rt
Salpingidae sp.	1	3	4	1
?Chrysomelinae sp.	1	3	4	oa p
Coleoptera sp. A	1	3	4	u
Coleoptera sp. B	1	3	4	u

Site: WB2 Context: 103 Sample: 103/T - beetle/bug main statistics

Erosion = 4 Fragmentation = 0; Weight = 1.000kg

Number of individuals estimated as	N = 4
Number of taxa	S = 4

Site: WB2 Context: 103 Sample: 103/T - species list in rank order

Taxon	Number	%	Rank	Ecodes
?Anobium sp.	1	25	1	1
Ptinus sp.	1	25	1	rd
?Lathridius minutus group	1	25	1	rd
Coleoptera sp.	1	25	1	u

Site: WB2 Context: 147 Sample: 147/T - beetle/bug main statistics

Erosion = 3 Fragmentation = 4; Weight = 1.000kg

Number of individuals estimated as	N =	39
Number of taxa	S =	35
Index of diversity (alpha)	alpha =	160
Standard error of alpha	SE alpha =	81
Number of 'certain' outdoor taxa	SOA =	5
Percentage of 'certain' outdoor taxa	%SOA =	14
Number of 'certain' outdoor individuals	NOA =	5
Percentage of 'certain' outdoor individuals	%NOA =	13
Number of 'certain' and probable outdoor taxa	SOB =	7
Percentage of 'certain' and probable outdoor taxa	%SOB =	20
Number of 'certain' and probable outdoor individuals	NOB =	7
Percentage 'certain' and probable outdoor individuals	%NOB =	18
Diversity index for OB not calculated, NOB = SOB or NOB < 20		
Number of aquatic taxa	SW =	1
Percentage of aquatic taxa	%SW =	3
Number of aquatic individuals	NW =	1
Percentage of aquatic individuals	%NW =	3
Number of damp ground/waterside taxa	SD =	1
Percentage of damp ground/waterside taxa	%SD =	3
Number of damp ground/waterside individuals	ND =	1
Percentage of damp ground/waterside individuals	%ND =	3
Number of strongly plant-associated taxa	SP =	3
Percentage of strongly plant-associated taxa	%SP =	9
Number of strongly plant-associated individuals	NP =	3
Percentage of strongly plant-associated individuals	%NP =	8
Number of heathland/moorland taxa	SM =	0
Number of heathland/moorland individuals	NM =	0
Percentage of heathland/moorland individuals	%NM =	0
Number of wood-associated taxa	SL =	2
Number of wood-associated individuals	NL =	2
Percentage of wood-associated individuals	%NL =	5
Number of decomposer taxa	SRT =	21
Percentage of decomposer taxa	%SRT =	60
Number of decomposer individuals	NRT =	25
Percentage of decomposer individuals	%NRT =	64
Number of 'dry' decomposer taxa	SRD =	7
Percentage of 'dry'decomposer taxa	%SRD =	20
Number of 'dry' decomposer individuals	NRD =	10
Percentage of 'dry'decomposer individuals	%NRD =	26
Number of 'foul' decomposer taxa	SRF =	1
Percentage of 'foul' decomposer taxa	%SRF =	3
Number of 'foul' decomposer individuals	NRF =	1
Percentage of 'foul' decomposer individuals	%NRF =	3
Index of diversity of decomposer component	alpha RT =	60
Standard error	SE alpha RT =	31
Number of individuals of grain pests	NG =	0
Percentage of individuals of grain pests	%NG =	0
Number of individuals of grain pests	NG =	0
Number of uncoded taxa	SU =	5
Percentage of uncoded individuals	PNU =	13

Site: WB2 Context: 147 Sample: 147/T - species list in rank order

Taxon	Number	%	Rank	Ecodes
Atomaria nigripennis (Kugelann)	3	8	1	rd
Xylodromus ?concinnus (Marsham)	2	5	2	rt
Cryptophagus sp.	2	5	2	rd
Carabidae sp. A	1	3	4	ob
Carabidae sp. B	1	3	4	ob
Helophorus sp.	1	3	4	oa w
Cercyon depressus Stephens	1	3	4	rf
Cercyon sp.	1	3	4	u
Ptenidium sp.	1	3	4	rt
Omalium ?rivulare (Paykull)	1	3	4	rt
Omalium sp.	1	3	4	rt
Omaliinae sp.	1	3	4	u
Platystethus ?nitens (Sahlberg)	1	3	4	oa d
Anotylus sculpturatus group	1	3	4	rt
Oxytelus sculptus Gravenhorst	1	3	4	rt
Rugilus sp.	1	3	4	rt
Xantholinus sp.	1	3	4	u
Philonthus sp.	1	3	4	u
Aleocharinae sp.	1	3	4	u
Anobium punctatum (Degeer)	1	3	4	1
Ptinus sp.	1	3	4	rd
Monotoma sp.	1	3	4	rt
Atomaria sp. A	1	3	4	rd
Atomaria sp. B	1	3	4	rd
Mycetaea hirta (Marsham)	1	3	4	rd
Lathridius minutus group	1	3	4	rd
Corticaria sp.	1	3	4	rt
Aglenus brunneus (Gyllenhal)	1	3	4	rt
?Blaps sp.	1	3	4	rt
Tenebrio obscurus Fabricius	1	3	4	rt
Tenebrio sp.	1	3	4	rt
Cerambycidae sp.	1	3	4	1
?Chaetocnema concinna (Marsham)	1	3	4	oa p
Apion sp.	1	3	4	oa p
?Sitona sp.	1	3	4	oa p

Site: WB2 Context: 161 Sample: 161/T - beetle/bug main statistics

Erosion = 3 Fragmentation = 4; Weight = 1.000kg

Number of individuals estimated as	N =	31
Number of taxa	S =	25
Index of diversity (alpha)	alpha =	59
Standard error of alpha	SE alpha =	26
Number of 'certain' outdoor taxa	SOA =	3
Percentage of 'certain' outdoor taxa	%SOA =	12
Number of 'certain' outdoor individuals	NOA =	3
Percentage of 'certain' outdoor individuals	%NOA =	10
Number of 'certain' and probable outdoor taxa	SOB =	5
Percentage of 'certain' and probable outdoor taxa	%SOB =	20
Number of 'certain' and probable outdoor individuals	NOB =	5
Percentage 'certain' and probable outdoor individuals	%NOB =	16

Diversity index for OB not calculated, NOB = SOB or NOB < 20

Number of aquatic taxa	SW =	0
Percentage of aquatic taxa	%SW =	0
Number of aquatic individuals	NW =	0
Percentage of aquatic individuals	%NW =	0
Number of damp ground/waterside taxa	SD =	1
Percentage of damp ground/waterside taxa	%SD =	4
Number of damp ground/waterside individuals	ND =	2
Percentage of damp ground/waterside individuals	%ND =	6
Number of strongly plant-associated taxa	SP =	2
Percentage of strongly plant-associated taxa	%SP =	8
Number of strongly plant-associated individuals	NP =	2
Percentage of strongly plant-associated individuals	%NP =	6
Number of heathland/moorland taxa	SM =	2
Number of heathland/moorland individuals	NM =	2
Percentage of heathland/moorland individuals	%NM =	6
Number of wood-associated taxa	SL =	2
Number of wood-associated individuals	NL =	3
Percentage of wood-associated individuals	%NL =	10
Number of decomposer taxa	SRT =	16
Percentage of decomposer taxa	%SRT =	64
Number of decomposer individuals	NRT =	21
Percentage of decomposer individuals	%NRT =	68
Number of 'dry' decomposer taxa	SRD =	5
Percentage of 'dry'decomposer taxa	%SRD =	20
Number of 'dry' decomposer individuals	NRD =	6
Percentage of 'dry'decomposer individuals	%NRD =	19
Number of 'foul' decomposer taxa	SRF =	3
Percentage of 'foul' decomposer taxa	%SRF =	12
Number of 'foul' decomposer individuals	NRF =	5
Percentage of 'foul' decomposer individuals	%NRF =	16
Index of diversity of decomposer component	alpha RT =	32
Standard error	SE alpha RT =	16
Number of individuals of grain pests	NG =	0
Percentage of individuals of grain pests	%NG =	0
Number of individuals of grain pests	NG =	0
Number of uncoded taxa	SU =	3
Percentage of uncoded individuals	PNU =	10

Site: WB2 Context: 161 Sample: 161/T - species list in rank order

Taxon	Number	%	Rank	Ecodes
Cercyon depressus Stephens	3	10	1	rf
Anotylus nitidulus (Gravenhorst)	2	6	2	rt d
Anobium punctatum (Degeer)	2	6	2	l
Lathridius minutus group	2	6	2	rd
Corticaria sp. A	2	6	2	rt
Ulopa reticulata (Fabricius)	1	3	6	oa p m
Auchenorhyncha sp.	1	3	6	oa p
Trechus ?micros (Herbst)	1	3	6	u
Bradycellus ruficollis (Stephens)	1	3	6	oa m
Carabidae sp.	1	3	6	ob
Cercyon atricapillus (Marsham)	1	3	6	rf
Megarthrus sp.	1	3	6	rt
Xylodromus ?concinnus (Marsham)	1	3	6	rt
Anotylus complanatus (Erichson)	1	3	6	rt

Anotylus rugosus (Fabricius)	1	3	6	rt
Gyrohypnus ?angustatus Stephens	1	3	6	rt
Staphylininae sp.	1	3	6	u
Aleocharinae sp. A	1	3	6	u
Aphodius sp.	1	3	6	ob rf
Cryptophagus sp.	1	3	6	rd
Atomaria sp. A	1	3	6	rd
Atomaria sp. B	1	3	6	rd
Mycetaea hirta (Marsham)	1	3	6	rd
Corticaria sp. B	1	3	6	rt
Cisidae sp.	1	3	6	1

Site: WB2 Context: 165 Sample: 165/T - beetle/bug main statistics

Erosion = 3 Fragmentation = 4; Weight = 1.000kg

Number of individuals estimated as	N =	14
Number of taxa	S =	12
Index of diversity not calculated, n = s or n < 20		
Number of 'certain' outdoor taxa	SOA =	2
Percentage of 'certain' outdoor taxa	%SOA =	17
Number of 'certain' outdoor individuals	NOA =	2
Percentage of 'certain' outdoor individuals	%NOA =	14
Number of 'certain' and probable outdoor taxa	SOB =	3
Percentage of 'certain' and probable outdoor taxa	%SOB =	25
Number of 'certain' and probable outdoor individuals	NOB =	3
Percentage 'certain' and probable outdoor individuals	%NOB =	21
Diversity index for OB not calculated, NOB = SOB or NOB < 20		
Number of aquatic taxa	SW =	0
Percentage of aquatic taxa	%SW =	0
Number of aquatic individuals	NW =	0
Percentage of aquatic individuals	%NW =	0
Number of damp ground/waterside taxa	SD =	1
Percentage of damp ground/waterside taxa	%SD =	8
Number of damp ground/waterside individuals	ND =	2
Percentage of damp ground/waterside individuals	%ND =	14
Number of strongly plant-associated taxa	SP =	1
Percentage of strongly plant-associated taxa	%SP =	8
Number of strongly plant-associated individuals	NP =	1
Percentage of strongly plant-associated individuals	%NP =	7
Number of heathland/moorland taxa	SM =	0
Number of heathland/moorland individuals	NM =	0
Percentage of heathland/moorland individuals	%NM =	0
Number of wood-associated taxa	SL =	1
Number of wood-associated individuals	NL =	1
Percentage of wood-associated individuals	%NL =	7
Number of decomposer taxa	SRT =	6
Percentage of decomposer taxa	%SRT =	50
Number of decomposer individuals	NRT =	8
Percentage of decomposer individuals	%NRT =	57
Number of 'dry' decomposer taxa	SRD =	1
Percentage of 'dry'decomposer taxa	%SRD =	8
Number of 'dry' decomposer individuals	NRD =	1
Percentage of 'dry'decomposer individuals	%NRD =	7
Number of 'foul' decomposer taxa	SRF =	0
Percentage of 'foul' decomposer taxa	%SRF =	0
Number of 'foul' decomposer individuals	NRF =	0

Percentage of 'foul' decomposer individuals	%NRF =	0
Diversity index for RT not calculated, NRT = SRT or NRT < 20		
Number of individuals of grain pests	NG =	0
Percentage of individuals of grain pests	%NG =	0
Number of individuals of grain pests	NG =	0
Number of uncoded taxa	SU =	2
Percentage of uncoded individuals	PNU =	14

Site: WB2 Context: 165 Sample: 165/T - species list in rank order

Taxon	Number	%	Rank	Ecodes
Xylodromus concinnus (Marsham)	2	14	1	rt
Anotylus nitidulus (Gravenhorst)	2	14	1	rt d
Auchenorhyncha sp.	1	7	3	oa p
Bembidion ?properans Stephens	1	7	3	oa
Carabidae sp.	1	7	3	ob
Ptenidium sp.	1	7	3	rt
Acrotrichis sp.	1	7	3	rt
Staphylininae sp.	1	7	3	u
Anobium punctatum (Degeer)	1	7	3	1
Lathridius minutus group	1	7	3	rd
Aglenus brunneus (Gyllenhal)	1	7	3	rt
Coleoptera sp.	1	7	3	u

Site: WB2 Context: 166 Sample: 166/T - beetle/bug main statistics

Erosion = 3 Fragmentation = 4; Weight = 1.000kg

Number of individuals estimated as	N =	22
Number of taxa	S =	21
Index of diversity (alpha)	alpha =	206
Standard error of alpha	SE alpha =	184
Number of 'certain' outdoor taxa	SOA =	5
Percentage of 'certain' outdoor taxa	%SOA =	24
Number of 'certain' outdoor individuals	NOA =	5
Percentage of 'certain' outdoor individuals	%NOA =	23
Number of 'certain' and probable outdoor taxa	SOB =	8
Percentage of 'certain' and probable outdoor taxa	%SOB =	38
Number of 'certain' and probable outdoor individuals	NOB =	8
Percentage 'certain' and probable outdoor individuals	%NOB =	36
Diversity index for OB not calculated, NOB = SOB or NOB < 20		
Number of aquatic taxa	SW =	1
Percentage of aquatic taxa	%SW =	5
Number of aquatic individuals	NW =	1
Percentage of aquatic individuals	%NW =	5
Number of damp ground/waterside taxa	SD =	1
Percentage of damp ground/waterside taxa	%SD =	5
Number of damp ground/waterside individuals	ND =	2
Percentage of damp ground/waterside individuals	%ND =	9
Number of strongly plant-associated taxa	SP =	3
Percentage of strongly plant-associated taxa	%SP =	14
Number of strongly plant-associated individuals	NP =	3
Percentage of strongly plant-associated individuals	%NP =	14
Number of heathland/moorland taxa	SM =	0
Number of heathland/moorland individuals	NM =	0

Percentage of heathland/moorland individuals	%NM =	0
Number of wood-associated taxa	SL =	2
Number of wood-associated individuals	NL =	2
Percentage of wood-associated individuals	%NL =	9
Number of decomposer taxa	SRT =	8
Percentage of decomposer taxa	%SRT =	38
Number of decomposer individuals	NRT =	9
Percentage of decomposer individuals	%NRT =	41
Number of 'dry' decomposer taxa	SRD =	3
Percentage of 'dry'decomposer taxa	%SRD =	14
Number of 'dry' decomposer individuals	NRD =	3
Percentage of 'dry'decomposer individuals	%NRD =	14
Number of 'foul' decomposer taxa	SRF =	2
Percentage of 'foul' decomposer taxa	%SRF =	10
Number of 'foul' decomposer individuals	NRF =	2
Percentage of 'foul' decomposer individuals	%NRF =	9

Diversity index for RT not calculated, NRT = SRT or NRT < 20

Number of individuals of grain pests	NG =	0
Percentage of individuals of grain pests	%NG =	0
Number of individuals of grain pests	NG =	0
Number of uncoded taxa	SU =	4
Percentage of uncoded individuals	PNU =	18

Site: WB2 Context: 166 Sample: 166/T - species list in rank order

Taxon	Number	%	Rank	Ecodes
Anotylus nitidulus (Gravenhorst)	2	9	1	rt d
Auchenorhyncha sp.	1	5	2	oa p
Bembidion lampros or properans	1	5	2	oa
Pterostichus melanarius (Illiger)	1	5	2	ob
Cercyon depressus Stephens	1	5	2	rf
Cercyon sp.	1	5	2	u
Ochthebius sp.	1	5	2	oa w
Ptenidium sp.	1	5	2	rt
Staphylininae sp. A	1	5	2	u
Staphylininae sp. B	1	5	2	u
Aleocharinae sp.	1	5	2	u
Aphodius sp.	1	5	2	ob rf
Elateridae sp.	1	5	2	ob
Anobium ?punctatum (Degeer)	1	5	2	1
Lyctus linearis (Goeze)	1	5	2	1
Cryptophagus sp.	1	5	2	rd
Atomaria sp.	1	5	2	rd
Lathridius minutus group	1	5	2	rd
Corticaria sp.	1	5	2	rt
Chrysomelinae sp.	1	5	2	oa p
Longitarsus sp.	1	5	2	oa p