

**NEW QUAY ROAD
WHITBY
NORTH YORKSHIRE**

**A REPORT ON AN
ARCHAEOLOGICAL WATCHING BRIEF
AND EXCAVATION**

by

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Cover illustration

General view looking south-east, with Area 1 in foreground

CONTENTS

ABSTRACT

1. INTRODUCTION
2. METHOD STATEMENT
3. LOCATION, TOPOGRAPHY AND GEOLOGY
4. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND
5. ARCHAEOLOGICAL FIELDWORK RESULTS
6. CERAMIC BUILDING MATERIAL
7. POTTERY
8. SMALL FINDS
9. ENVIRONMENTAL ASSESSMENT
10. ARCHAEOLOGICAL DISCUSSION AND CONCLUSION
11. BIBLIOGRAPHY
12. ACKNOWLEDGEMENTS

Appendix 1: Ceramic building material records

List of Illustrations

	page
Figure 1	4
Figure 2	5
Figure 3	6
Figure 4	9
Figure 5	19
Figure 6	19
Figure 7	20
Figure 8	24
Figure 9	24
Figure 10	44

List of Tables

Table 1	27
Table 2	28
Table 3	28
Table 4	29
Table 5	36
Table 6	40

List of Plates

Plate 1	Watching brief, looking east. Wall 1030 (left) butted by wall 1031 (Right)	16
Plate 2	Area 1, looking north-west. Riverside wall 1187 with later riverside wall 1176 (far left)	21
Plate 3	Area 1, looking north-east. South-west side of quay 1118 (centre) with culvert 1113 (bottom)	22
Plate 4	Area 2, south-east facing section	25

List of Abbreviations

CBM	Ceramic building material
MAP	Malton Archaeological Projects
MPRG	Medieval Pottery Research Group
OD	Ordnance Datum
OSA	On-site Archaeology
YAT	York Archaeological Trust

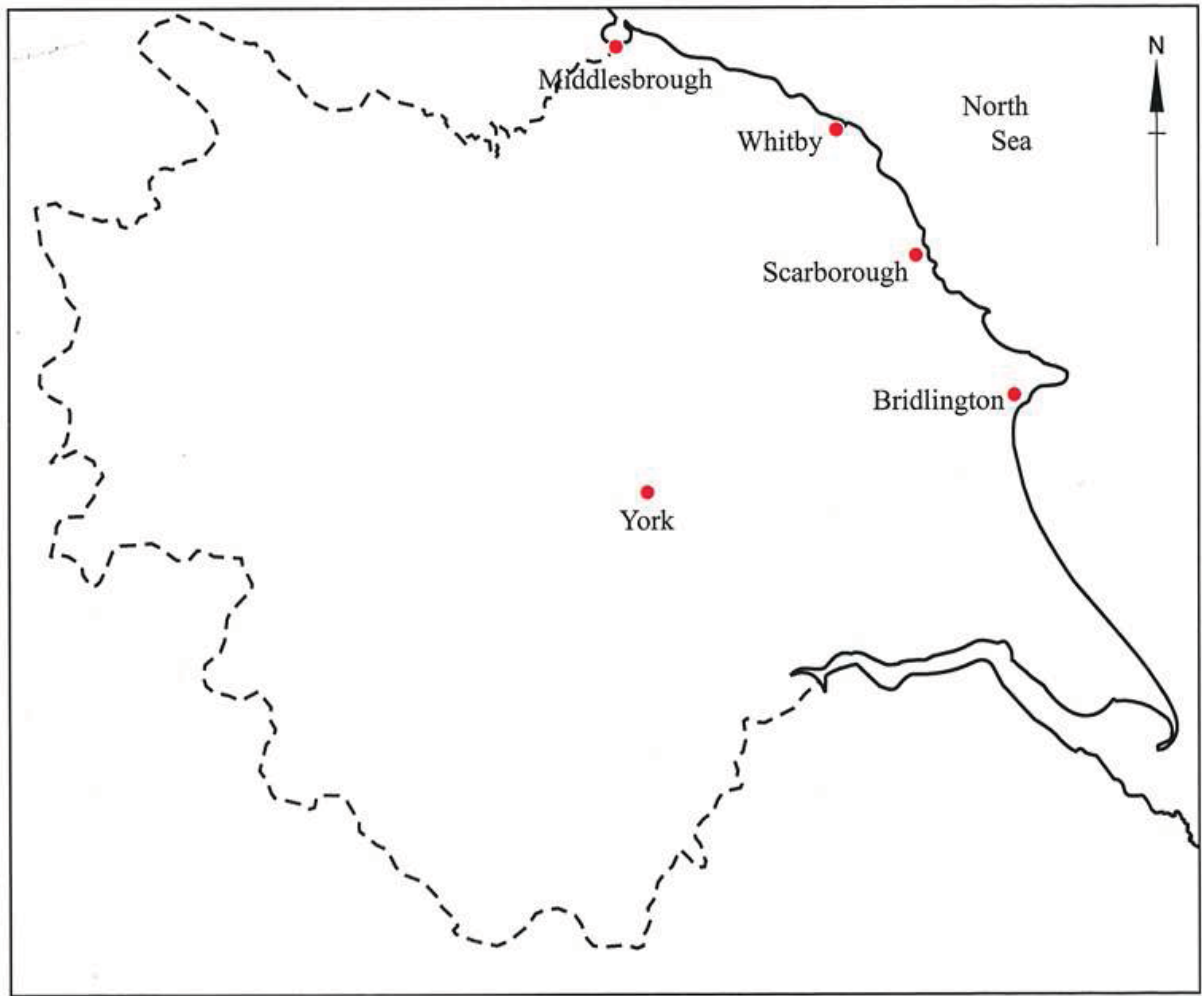
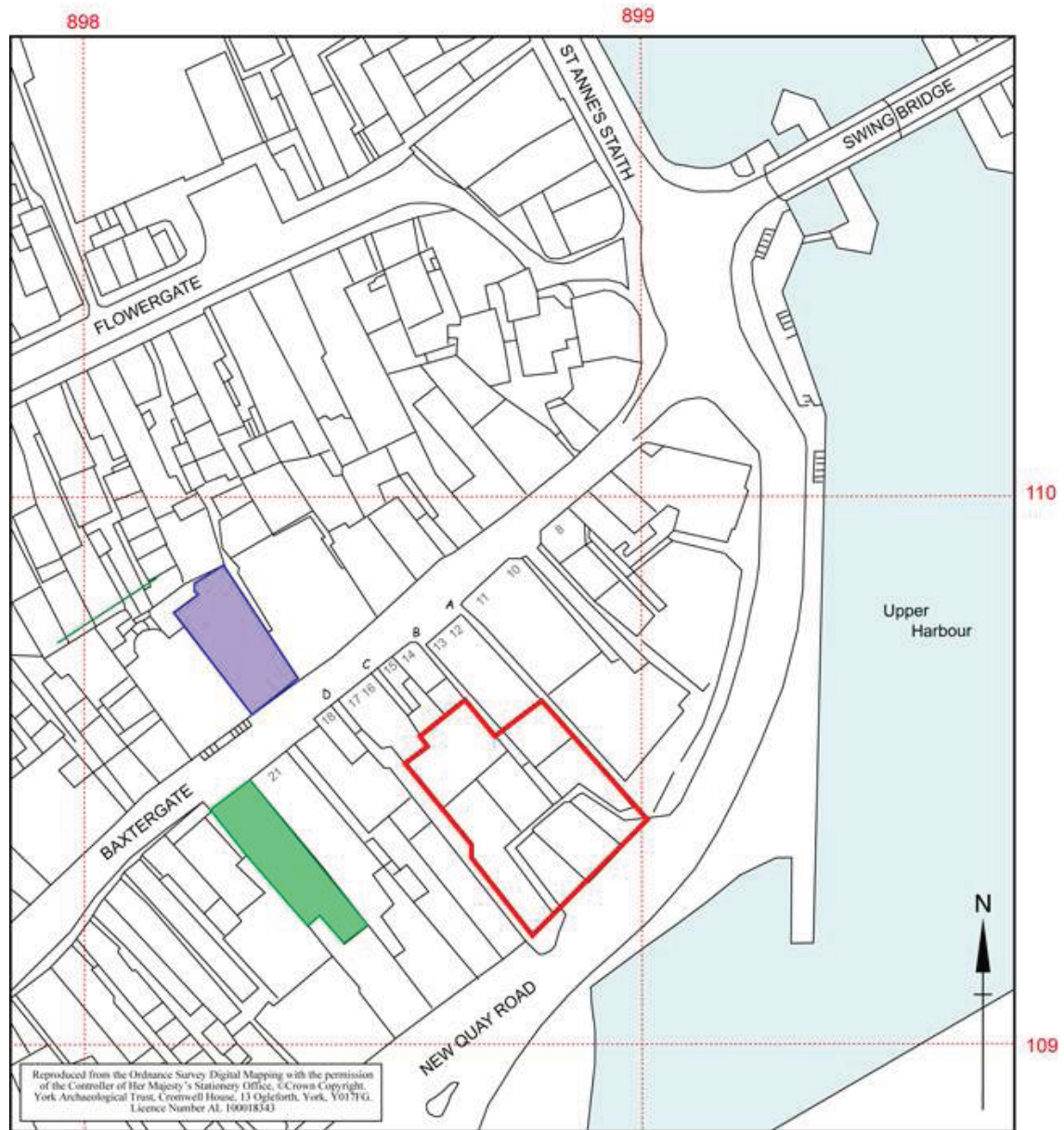





Figure 1 Location of Whitby





KEY:

- | | | | |
|---|-----------------------------|---|--------------------------------|
|  | O.S.A. site (22 Baxtergate) |  | M.A.P. site (63/64 Baxtergate) |
|  | Y.A.T. site (New Quay Road) | A - D | Lanes mentioned in text |

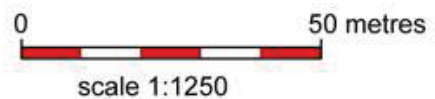


Figure 2 Archaeological site location plan

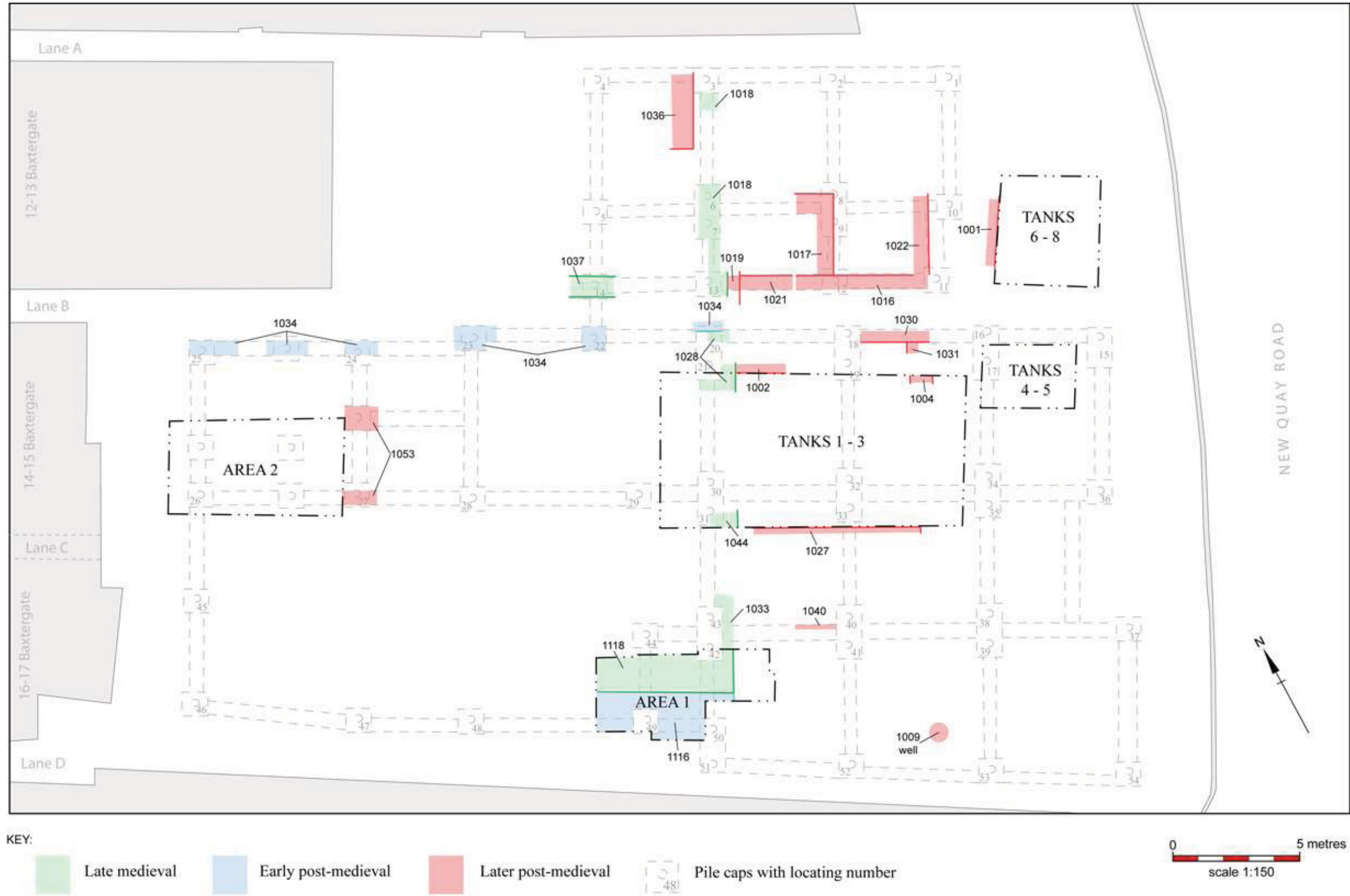


Figure 3 Plan of main observed features

ABSTRACT

A watching brief and limited excavation at New Quay Road, Whitby produced well-preserved evidence of occupation on the west bank of the River Esk, dating from the 12th century onwards. Successive reclamations extended the occupied land further into the river from the late medieval period onwards. Well-preserved environmental evidence indicated a medieval population with a varied diet. Finds from post-medieval reclamation material points to the presence of a number of crafts, including metal-working, in the vicinity at that time.

1. INTRODUCTION

Between 28th January and 25th February 2004, York Archaeological Trust (YAT) carried out a watching brief on the site of the former Eve's Garage at New Quay Road, Whitby (NZ 8988 1094; Figs 1 and 2) during the redevelopment of the property. The discoveries made during the watching brief prompted a phase of controlled archaeological excavation and recording between 22nd March and 15th April.

The work was undertaken on behalf of Severfield-Reeve DesignBuild, in accordance with a written scheme of investigation agreed with the Heritage Unit at North Yorkshire County Council. All records are currently stored at YAT under the Whitby Museum accession code WHITM:2004/4.

2. METHOD STATEMENT (Figure 3)

2.1 *Watching Brief*

Most of the groundworks undertaken by the builders were monitored. A major element of these works was the excavation of pits some 1.5m square and 1.2-4m deep, to accommodate the concrete pile caps. The concrete ground beams that were laid between the piles were around 0.6m wide by 1m deep, and were largely dug into modern deposits.

The other main element of the groundworks was the removal of eight petrol tanks in three trenches. The watching brief was largely confined to recording the trench sections, as the archaeological deposits therein had, of course, been removed to accommodate the tanks themselves. In one or two cases petrol was found to have contaminated the deposits surrounding the tanks; in particular, deposits up to 10m north-west of Tanks 6-8 had to be excavated to a depth of up to 2m in order to remove the contamination.

The archaeological evidence noted was fragmentary, as it largely comprised isolated observations at the pile cap positions, or interpretation of trench sections. Very few finds were recovered. Contexts 1000-1040 were assigned during the watching brief stage.

2.2 *Excavation*

During the watching brief, a stone waterfront of possible medieval date was identified running north-east / south-west across the middle of the site. In order to confirm the presence of this feature and to obtain a more precise date for its construction and use, it

was agreed to carry out a controlled archaeological excavation. Area 1 lay towards the south-west side of the site. After the removal of post-medieval and modern deposits (up to 1.5m thick overall) by machine, excavation then commenced by hand. The maximum depth reached in this trench was about 1m OD, 2.7m below ground level.

During the excavation of Area 1, a revision to the building design required the machine excavation of a trench up to 2m deep at the north-west end of the site (Area 2). Monitoring of this excavation indicated that possible medieval deposits were present in the lower half. Consequently the trench sections were recorded according to standard archaeological practice.

Contexts 1100-1191 were assigned during the excavation stage. 1100-19 and 1174-91 were allocated to Area 1, and 1120-73 were assigned to Area 2.

3. LOCATION, TOPOGRAPHY AND GEOLOGY (Figures 2 - 3)

The site is positioned on the west bank of the River Esk in the centre of Whitby, about 100m south-west of Whitby Bridge. It fronts onto New Quay Road to the south-east, and backs onto properties facing Baxtergate to the north-west. The property to the north-east of the site is the Angel Hotel.

The local urban topography appears to be typical of the Whitby townscape. Lanes, presumably of medieval origin, ran from Baxtergate to New Quay Road, allowing access to the land behind the buildings on the street frontages. Although the layout was largely obliterated on the site under discussion when the properties were amalgamated to form Eve's Garage, four lanes were still visible extending from Baxtergate to the north-west end of the site; one, on the south-west side, still provided access from Baxtergate for residents in the adjacent property, even during the current building works. It is likely that the lanes had once divided the site into three blocks, with each block comprising a pair of properties, so that each property had access to one lane (Figs. 2 and 3, Lanes A-D). The corresponding properties on Baxtergate are still divided to three pairs on this basis; 12-13 to the north-east, 14-15 in the middle, and 16-17 to the south-west.

The site lies on low-lying land in the valley of the River Esk, where the river cuts through the North Yorkshire Moors to the sea. The current ground level is around 4m OD at the north-west end of the site, and slopes down gently to about 3.5m OD at the south-east end. On the north-west side of Baxtergate less than 50m away, the ground rises sharply up to the headland known as The Craggs, the top of which is about 60m OD. There is geological and documentary evidence for major cliff falls and landslips caused by erosion of the cliffs on both sides of the valley, with loss of life on occasion, into the modern period.

The geology of the area is alluvium over sandstones, limestones and mudstones of the Great and Inferior Oolite Formation of the Middle Jurassic Period (Kent 1980, 53f.). A borehole survey carried out on the site in 2002 indicated that the upper part of the alluvium mainly comprised soft silts and clays to a depth of around 15m, with underlying sands and gravels extending down to at least 20m (Solmek 2002).



Figure 4 Site layout shown on Wood's 1828 map of Whitby

4. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

4.1 *Introduction*

Although Whitby is famed for its Anglo-Saxon and medieval abbeys, very little is known about the origins of the important port and town. Monitoring and recording during this development provided a rare opportunity to assess the archaeological importance of the town west of the Esk.

4.2 *Documentary evidence*

The earliest mention of the Whitby area is as the site of the monastery of *Streoneshalh*, which was founded in 657 by St Hilda as a house for men and women on the headland near the present abbey. The land was granted by King Oswy of Bernicia, and the monastery served as the royal cemetery for Oswy's family. Oswy presided over the Synod of Whitby in 664, which crucially resolved differences between Celtic and Roman Christian practices. The monastery was apparently destroyed in a Danish raid in 867, but the presence of an ecclesiastical community by the late 11th century is indicated by the place-name *Prestebi* (settlement of priests) in Domesday Book. Whitby is an Anglo-Scandinavian place-name, with the meaning of either 'white farmstead' or 'farmstead of Hviti' (Mills 1998, 376). Both names were employed until Presteby fell out of use in the 14th century, which suggests they originally referred to two different locations. The 'Whitby' place-name may have been applied to a harbour settlement that served the religious community of 'Presteby' on top of the headland, in which case it probably stood on the east bank of the river. The medieval street name Alder's Waste Ghaut also points to an Anglo-Scandinavian settlement on the east bank (Whitworth 2002, 8). One of the villas held by the manor of Whitby at the time of Domesday was *Florun*, which is thought to mean 'flat area.' This name could be preserved in the street name Flowergate, which lies on the edge of the low-lying area along the west bank of the River Esk (Mills 1998, 141). If *Florun* was situated on the west bank of the river, it would suggest that Whitby was restricted to the east side of the river at the time. The early eminence of the settlement on the east side of the River Esk is indicated by the construction of Spital Bridge by 1109, which improved access from the York road to the east side of the river (VCH, 507).

The abbey was re-founded under the Benedictine rule around 1074 by William de Percy, who granted the abbey the ancient monastery and two carucates of land in 'Prestebi.' By 1096 the same William had granted Whitby's harbour and seaweed rights to the abbey. By 1135 Alan de Percy had granted the abbey a large territory comprising the Manors of Whitby, Sneaton, Fylingdales and Hackness. This land was separated from the wapentake of Langbaugh, with all rights being handed over to the abbey; the resultant Liberty of Whitby Strand was itself classified as a wapentake in 1316. In 1128 Henry I granted to the abbey a fair at Whitby on the feast of St Hilda (VCH 503f.), and had granted the abbey burghage in Whitby by that date. The burghage area was established by an abbey charter in about 1128 and covered 48 acres, although approximately half of this comprised inter-tidal mudflats. Whitby was therefore a manorial borough under the abbey, which held many rights over the town. Many such boroughs were founded by ecclesiastical landowners in an attempt to profit from burghage rents (Miller et al. 1995,

270f.). For a short time (about 1185-1201) the town was conferred with the status of a borough independent of the abbey; however the abbey soon regretted this decision, and had the crown dismiss the charter. The burgesses tried in vain to regain their independent status on more than one occasion during the medieval period. However the burgesses retained burgage rights, which secured their tenancy for a modest rent - 5 pence per toft in the case of Whitby (Edwards 1924, 204).

It is likely that the place-name 'Whitby' came to be applied to both sides of the River Esk (at the expense of Florun) because the borough of Whitby – that is, the burgage plots rented out by the abbey - were established on both banks of the river to maximise the number of riverside plots available (Barker 2004). The abbey may have been responsible for the construction of a fortified gatehouse on the high ground at the west end of medieval Flowergate, thereby protecting the west side of the town. Traces of a substantial stone building, dated to the 12th century on architectural grounds, survive incorporated into standing buildings at the corner of Flowergate and Brunswick Street (Harrison 1954).

Whitby benefited from the influence of the abbey, and the 1301 lay subsidy returns record that it paid more in tax than any other Yorkshire town except York. The vigour of the Whitby fishing industry from an early date is demonstrated by the fish payments in lieu of tithes by the town in the 11th century; subsequently the abbey made payments to St Leonard's Hospital in York in herrings. Although the 1301 returns do not mention a merchant or a master of a ship, an increase in trading from the port is indicated by references to projected and existing quays during the 14th century. The abbey had its own landing-place with warehouses at Low Lathes Abbey accounts of 1394-6 show that the town traded in fish, coal and wool. Around 1400 nine owners of fishing vessels are recorded. Three gilds were active during the 14th and 15th centuries. The borough had been attractive enough to be raided by the Scots in 1327, and the port was sufficiently large to accommodate a captured French fleet in 1451. Whitby was one of the 30 English ports expected to provide a ship-of-war in times of trouble during the medieval period. On the other hand, Whitby did not gain the measure of civic freedom attained by boroughs under secular lordship. Furthermore its hinterland was poor, forcing it to rely on coastal shipping, fishing and provision of port facilities for the abbey. The borough remained small, amounting to about 100 houses throughout the medieval period.

Whitby Bridge is first mentioned in 1351, reflecting a need to link the two parts of the town by this time. A marketplace was established close to the bridge at the junction of Baxtergate, Flowergate and Haggergate, which were probably the three main medieval streets on the western side of the river mentioned in a Whitby Abbey charter in 1177x1179 (VCH, 507f.). The earliest street recorded by name was Flowergate (then *Floregate*) in 1222. Haggergate was recorded as *Hakelsougate* in 1269, and Baxtergate is first documented in 1401 (Whitworth 2004).

The dissolution of Whitby Abbey in 1539 adversely affected the town. When the crown demanded four ships-of-war in 1544, the burgesses complained that the harbour was in disrepair, they did not have sufficient ships, and their chief mariners were already away in the king's service (VCH, 511). The trading fleet was reduced to two vessels by 1600. However, the rise of the alum mining industry nearby in the early 17th century brought

about a revival. By 1612 at least 12 ketches sailed from Whitby; in 1625 the port was capable of building the Great Neptune, then the largest merchant ship in England, and three warships were built there in 1626-7. During the Civil War the town was strongly garrisoned by the king, but it surrendered to General Fairfax himself in 1644. The decline of the ruling Cholmley family loosened manorial bonds on the town, and it remained prosperous into the 19th century. A fleet of about 250 vessels carried about a third of the coal exported from north-east England, half the timber imports from Norway and a fifth of Britain's immense trade with the Baltic. A whaling industry flourished between 1753 and 1837. As a harbour-of-refuge, Whitby was able to finance piers and dry docks, and built up a large ship-building industry. Although the shipping trade declined in the 19th century, the arrival of the railway in 1836 introduced the tourist trade (Barker 2004). Shipping and fishing have remained part of the town's economy to the present day. Whitby became an independent Borough in 1832. The Liberty of Whitby Strand, which had passed from the abbey to the Lords of the Manor at the Dissolution, was finally bought by Whitby Urban District Council in 1906.

In respect of the local urban topography, Baxtergate is recorded in 1574 as a king's highway and contained several burgage tenements. The properties on the south-east side of the street are recorded as being bounded to the rear by the River Esk (Young 1817, 481). The earliest reliable map of the New Quay Road area by Wooler (published 1740) shows properties lining the south-east side of Baxtergate and running down to the riverside. Indentations in the riverside limits of the properties suggest the construction of a riverside wall, at least partly on an individual property basis. However Charlton's map of 1778 appears to show a significant encroachment of the Baxtergate properties into the river, apparently to a more straight riverside wall, with an open quay separating the buildings from the riverside. The situation appears largely unchanged during the 19th century according to a map by Wood in 1828 (Fig. 4) and the 1st edition Ordnance Survey map of 1853. The quay is identified as Dock End by Wood. However, Dock End is drawn as a riverside road running between Whitby Bridge and the railway station at the end of the 19th century (Home 1895). A photograph taken about this time shows that Dock End was passable to motor vehicles, with a small timber quay on its river side for the use of shipping (Sythes 1997, 14). The road was widened and renamed New Quay Road in the 1920s.

4.3 *Previous archaeological evidence*

Very little evidence of prehistoric or Roman activity has been found in Whitby. Roman pottery has been found in the abbey grounds, and a coin of Hadrian was dug up on the west side of the river at Bagdale (Young 1817, 473; Edwards 1924, 21). It has been speculated that a late Roman signal station stood on the east cliff, but was subsequently lost due to coastal erosion (Bell 1998).

Anglian occupation, including the royal monastery, on the east headland, has long been attested archaeologically (Peers et al., 1943). Of greater interest in the case of this report are the Anglian finds made east of Church Street during 1867-76. Bone combs and spindle whorls, pottery, whetstones, loomweights and animal bones were recovered from deposits over 2m thick in total (White 1984), and it is possible this material is derived from a port that served the religious community on the headland above.

Groundworks along Baxtergate have long indicated that the street ran along a sand bank at the edge of the River Esk, and old mooring posts are still found there occasionally. It is likely that Baxtergate was originally a natural riverside landing, with buildings standing only on its north-west side. The excavation of a modern cellar under The Plough public house (19-20 Baxtergate) revealed a section of sandstone wall some 15m south-east of the street; this structure may represent the first, medieval reclamation in this part of the town, with the riverside wall providing deeper water mooring for larger boats (Daysh 1958).

Excavations at 63-64 Baxtergate (on the north-west side of the street) produced evidence of occupation, including floors and posts, dating from the 14th century onwards, close to the street frontage (MAP 1992). Residual 12th-13th century pottery hinted at earlier occupation in the vicinity. At the north-west end of the property, huge sandstone boulders embedded in the natural clay indicate that this area suffered from cliff falls and was not occupied. The top of the natural clay was at 5.5m OD at the north-west end of the site and at least 4m OD in the south-west corner, but only around 2.5m OD in the south-east corner. This could be interpreted as a relatively flat original land surface alongside the River Esk, possibly broken by a stream in the eastern part of the site running down to the river.

At 49-50 Baxtergate (on the north-west side of the street) boundary ditches appear to have been used to form plots of land which were occupied from at least the 13th century onwards (Waughman 1994). Groundworks at 22 Baxtergate (on the south-east side of the street) were too shallow to encounter archaeological deposits (OSA 1998).

5. ARCHAEOLOGICAL FIELDWORK RESULTS

5.1 *Watching Brief*

5.1.1 *Undisturbed natural deposits*

Light blue/grey silty clay, the top of which was 2.5m OD, was encountered in the west corner of the site (Piles 45-6 = 1014). In the centre of the site was a layer of cobbles in a light grey sand (Pile 14 = 1048; Pile 22 = 1026; Pile 42 = 1007; Tanks 1-3 = 1047). On the north-east side of the site the cobbles lay at about 0.8m OD, but to the south-west they were at the level of Ordnance Datum. This feature indicates an anomaly in the natural topography, perhaps a stream running into the River Esk. Cobbles 1007 were in turn overlain by a series of poorly-sorted sand and clay laminations, with occasional organic brown lenses, up to 0.5m thick overall (Pile 13 = 1025; Pile 42 = 1006; Tanks 1-3 = 1046; north-west of Tanks 6-8 = 1015). These deposits are interpreted as alluvium; their varied character probably reflects changes in the regime of the River Esk.

5.1.2 *Medieval*

The most notable possible medieval feature encountered was a large, 1m-wide sandstone wall aligned north-east / south-west. Towards the north-east side of the site, this structure consisted of roughly-squared 0.3m blocks and was at least three stones thick (Piles 3, 6-7, 13 = 1018). The sandstone blocks in 1018 measured 0.5 x 0.3 x 0.2m on average, and they were squared on the south-east elevation. This wall seems to have rested on occasional timber piles (unexcavated). The top was about 2m OD and the bottom 0.8m OD. A similar wall 4m to the north-west, aligned north-west / south-east (Pile 14, 1037), could be the north-west return, especially as Wall 1018 appears not to have continued south-west of Pile 13. If these two walls were related, they would appear to form the south corner of a quay extending into the River Esk, but confined to 13 Baxtergate and perhaps the properties to the north-east.

On the same alignment as 1018 towards the middle of the site was another massive wall (Pile 20 and north corner of Tanks 1-3 = 1028; west corner of Tanks 1-3 = 1044). The stones of the south-east elevation were squared and the courses were slightly offset, with the stones behind being more roughly hewn if not unworked boulders. The base of the wall appeared to be set in a trench dug into the alluvium. Further south-west, the rear of the wall comprised large boulders (Piles 42-3 = 1033). The north-east / south-west wall alignment represented by 1018/1028/1033/1044 was regarded as representing a riverside wall which formed the riverward end of the properties facing onto Baxtergate. The variable fabric of the wall and the presence of a possible return along the line of the south-east boundary of 13 Baxtergate indicated that this structure comprised reclamations by more than one property, but extending roughly the same distance into the River Esk.

Immediately to the rear of these walls, a series of mixed organic silty loam and light brown clay deposits, each 0.2-0.5m thick, was observed between 0.5m-2.0m OD (Pile 14 = 1038; Piles 30-1 = 1039; Pile 42 = 1032; Tanks 1-3 = 1045). These were regarded as levelling deposits, which formed the reclaimed land behind the riverside wall. Thin

mortar and sand layers, the top of which lay at 2.3m OD (Tanks 1-3 = 1049) were regarded as build-up that accumulated on the surface of this riverside.

Mixed mid-grey silty sand and organic dark grey silt loam with wood chips, charcoal and animal bone observed at about 0.5-1.5m OD (Tanks 1-3 = 1005; north-west of Tanks 6-8 = 1011), seemed to be the result of dumping waste from the waterfront into river silts that were accumulating against the medieval riverside wall.

5.1.3 *Earlier Post-medieval*

A major ground-raising episode early in the post-medieval period was indicated by thick, generally dark grey silty loam deposits which were observed in most of the groundworks. At the north-west end of the site the top of these deposits was about 3m OD and they were about 0.5m thick overall. They sloped down to about 2.5m OD towards the south-east end of the site. Immediately south-east of the possible medieval riverside wall these deposits were up to 1m thick overall (Tanks 1-3 = 1003; sewer trench, south corner = 1051), sealing the medieval alluvium to reclaim more land from the River Esk. Late 15th/16th century pottery was recovered from Context 1003.

Close to the north-east side of the site was a north-east / south-west aligned wall built of post-medieval bricks (1036). Beneath the brick courses were two courses of sandstone; the stones in the upper course measured about 0.2m x 0.15m, whereas those in the lower course were up to 0.6m long by 0.2m high. The sandstones rested on a layer of brick rubble. The wall returned to the north-west 1.5m from the north-east side of the site, and it ran to the south-west for 3.6m before terminating. Wall 1036 stood above the level of the existing alley that separated 12 Baxtergate from the New Angel hotel to the north-east, and the top of the sandstone courses was about 3.6m OD, very close to the existing ground level. A concrete surface had been laid against the south-west end of the wall, indicating that the building of which this wall was part stood into the modern era.

Perhaps the earliest post-medieval wall on the site was found on the 13 Baxtergate property. It was a north-east / south-west aligned brick wall, two bricks wide, which had been built against the upper part of the face of Wall 1018 (north-west of Tanks 6-8, 1019). As post-medieval dumps associated with reclamation of land from the River Esk were deposited against it, this wall appears to have been part of a building constructed during the reclamation.

A substantial sandstone wall aligned north-east / south-west was observed some 4m south-east of the possible medieval waterfront (North-west of Tanks 6-8, 1017). Five courses of squared sandstone blocks survived, with the top at about 2.5m OD and the base at 1.7m OD. The blocks ranged in size from 0.25 x 0.1m to 0.7m x 0.2m. At its north-east end 1017 returned to the north-west for a least 1m. The wall rested on a bed of orange sand with much cobbles and brick/tile (1012), which in turn was supported by at least two timber piles measuring 0.15m square (1023, unexcavated). An underlying layer of compact, light brown clay, above the alluvium and averaging 0.3m thick (1052), may also have been intended to support this structure. Wall 1017 was interpreted as the riverside wall of the 13 Baxtergate property and therefore represented a modest, individual reclamation beyond the medieval riverside.

The interpretation of Wall 1017 as part of a localised reclamation is supported by the presence of dark grey sand (1029), regarded as alluvium, which lay against the south-east elevation of the wall. Meanwhile, silty sandy alluvium (1050) occurring at 1.6-2.0m OD (a similar depth to Alluvium 1029), some 4m south-east of the possible medieval riverside wall (1033) towards the south-west side of the site indicates that the 16-17 Baxtergate properties were not extended at the same time.

Cutting Wall 1017 and butted against Wall 1019, an observed length of 4m, was a north-west/south-east wall (1021). It comprised six (surviving) brick courses on two courses of roughly-hewn sandstone; the top of the sandstone foundations was about 2.1m OD. The south-east continuation of Wall 1021 was probably observed as a single course of sandstone blocks measuring an average of 0.5m long by 0.3m high by 0.3m wide, bonded with and set on light brown clay, at about 2m OD (1016). Just over 2m north-west of Tanks 6-8 this wall turned to the north-east for at least 3m (1022). Walls 1016, 1021-2 appeared to form a brick building that had been added on to the structure represented by Wall 1019, towards the riverward end of 13 Baxtergate. A course of post-medieval bricks (1024), resting on north-west/south-east sandstone Wall 1037 (see medieval, above), could be part of the same building or another to the north-west.



Plate 1

Watching brief looking east. Wall 1030 (left) butted by wall 1031 (right)

In the north-west side of the trench dug to remove Tanks 6-8 was a north-east / south-west brick wall surviving to a height of about 1m (1001). The bricks rested on at least one course of large, roughly hewn sandstone blocks, and the brick dimensions suggest the wall dates to the 17th/18th centuries. The brick courses extend below 2m OD, which is deep for a post-medieval wall foundation. It is possible that this was the south-east wall of a building that stood right on the river edge of the 13 Baxtergate property, as shown on the Wood 1828 map (Fig.4); it could be part of the same building as 1016/1021-2. Thick,

mixed dark grey silty clay and light brown clay deposits (1010), lying against the south-east face of Wall 1017 at around 2m OD, would appear to be part of the reclamation episode associated with Wall 1001. Later 17th/18th century pottery was found in Context 1010.

Turning to the 14 Baxtergate property, immediately north-east of Tanks 1-3 was a massive wall aligned north-west / south-east (1030). It consisted of three (surviving) brick courses, three bricks wide, on a minimum of seven courses of large, squared sandstone blocks at least 1.2m deep (full width not observed). The uppermost course of stonework was offset from the brick wall, with its top edge chamfered flush to the brickwork; if this course of stone stood above its contemporary ground surface, the ground level would have been about 2.7m OD. The brick dimensions indicate a 17th/18th century date. Wall 1030 is thought to have been the foundation of a substantial post-medieval brick building toward the riverward end of the 14 Baxtergate property. It was probably constructed during a reclamation episode, as varied dump deposits (1043), each at least 0.1m thick and lying at about 2-2.5m OD, were dumped against the south-west face of the foundations.

A wall of roughly squared sandstone blocks aligned north-east / south-west was observed at 1.3-2.1m OD in the east corner of Tanks 1-3 (1004), set in a trench cut into Levelling deposit 1003. This structure measured 1m wide and 0.8m deep, and rested on a thin bed of tile and pot which dated to the later 17th/18th centuries. It is thought to have been the foundation of a wall, and could be associated with Wall 1030.

Coursed stonework 1.5m deep and at least 1m wide, with its base resting on occasional timber piles at about 1m OD, was observed in Piles 20 and 22-25 (1034). This evidence points to a massive foundation aligned north-west/south-east, on the north-east side of 14 Baxtergate. This structure was on roughly the same alignment as Wall 1030, and so could be part of the same post-medieval building. On the other hand, the top of the Wall 1034 is slightly lower than that of Wall 1030, and it lacks a brick superstructure; this could mean that it is medieval in date, and perhaps represents another localised reclamation episode.

A clay-bonded, roughly-hewn sandstone wall, aligned north-west / south-east, was observed at 1-2.5m OD (Tanks 1-3 = 1002). It terminated to the north-west barely 0.5m from the face of Wall 1028, and could have represented the construction of a quay beyond Wall 1028 as part of a localised reclamation further into the River Esk.

Two fragments of sandstone wall foundations were observed at about 2m OD towards the north-west end of the site in Pile 27 and an additional pile between Piles 27 and 24 (1053). They appeared to form a wall foundation aligned north-east / south-west, perhaps part of a building on the 15 Baxtergate property.

In the 16 Baxtergate property, a wall of coursed, roughly squared sandstone, on a bed of brown clay, was observed running north-west / south-east (1027). Its north-west end lay close to the possible medieval riverside wall 1044, and it terminated some 8m to the south-east of Wall 1044. Although truncated by a modern pipe, this wall was at least 1m high and survived to a height of about 2m OD. It was probably the foundation of a post-medieval building. A wall foundation comprising three courses of sandstone blocks up to

0.5m long (sewer trench, south corner = 1040), parallel to and some 4m south-west of Wall 1027, could have been part of the same building. Lenses of light brown-black silty loam (1050), lying to the north-east of Wall 1040 at 2.6-2.8m OD, appeared to be floor deposits within this building.

5.1.4 *Later Post-medieval and Modern*

Mixed, mid-grey silty sand alluvium and dark grey silty loam dump deposits (1020) accumulated against the face of Wall 1017 at about 1.7-2.2m OD. They are interpreted as waste disposal and silting against the riverside wall; this deposit contained 12th-14th century pottery. Subsequently, thick dark grey silty loam dumps extended across the entire site. The top of these deposits was about 3.5m OD at the north-west end of the site, sloping down to 3m OD to the south-west (Piles 50-1 = 1041). They probably marked a general raising of the ground level during the later post-medieval period.

Butting the south-west side of Wall 1030 was a brick wall on a single sandstone foundation course (1031). The brick dimensions suggest a later post-medieval (18th-19th century) date for this wall. Wall 1031 appears to be an internal partition, added to the building represented by Wall 1030 on the 14 Baxtergate property.

A well (1009) was found towards the south corner of the site. Within a cut about 1m in diameter and at least 1.5m deep (1008) was a circular, rendered lining of small sandstone blocks set in light brown clay, with a sandstone slab cap. The well had been backfilled with silty loam, stone and brick (1013). Adjacent to the well was a surface of cobbles and square setts at about 3m OD (1035) which was probably contemporary with the well. The well and surface were considered to be 19th century in date, and presumably marked the position of a yard on the 17 Baxtergate property, adjacent to the alley that separated that property from the 18 Baxtergate property.

Bricks and sandstone setts (1042), overlying the demolished Wall 1031 and butting against Wall 1030, indicated a 19th century surface at 2.9m OD on the 14 Baxtergate property.

The post-medieval structures were sealed by concrete on a rubble base. In several instances concrete surfaces were found at about 3m OD, about 0.5m below the current ground level, which suggests there had recently been a major ground raising episode across the site to form the current ground level.

5.2 *Excavation*

5.2.1 *Area 1 (Figures 5 – 7)*

Area 1 was a controlled archaeological excavation, intended to investigate a possible stone riverside wall identified during the watching brief. This trench lay towards the south-west side of the site. If the pairs of properties separated by lanes originally extended back this far from Baxtergate, Area 1 would have straddled the boundary between Nos. 16 and 17. It was an irregular L-shape area situated between four pile positions, and measured up to 7m (north-west / south-east) by 3.6m.

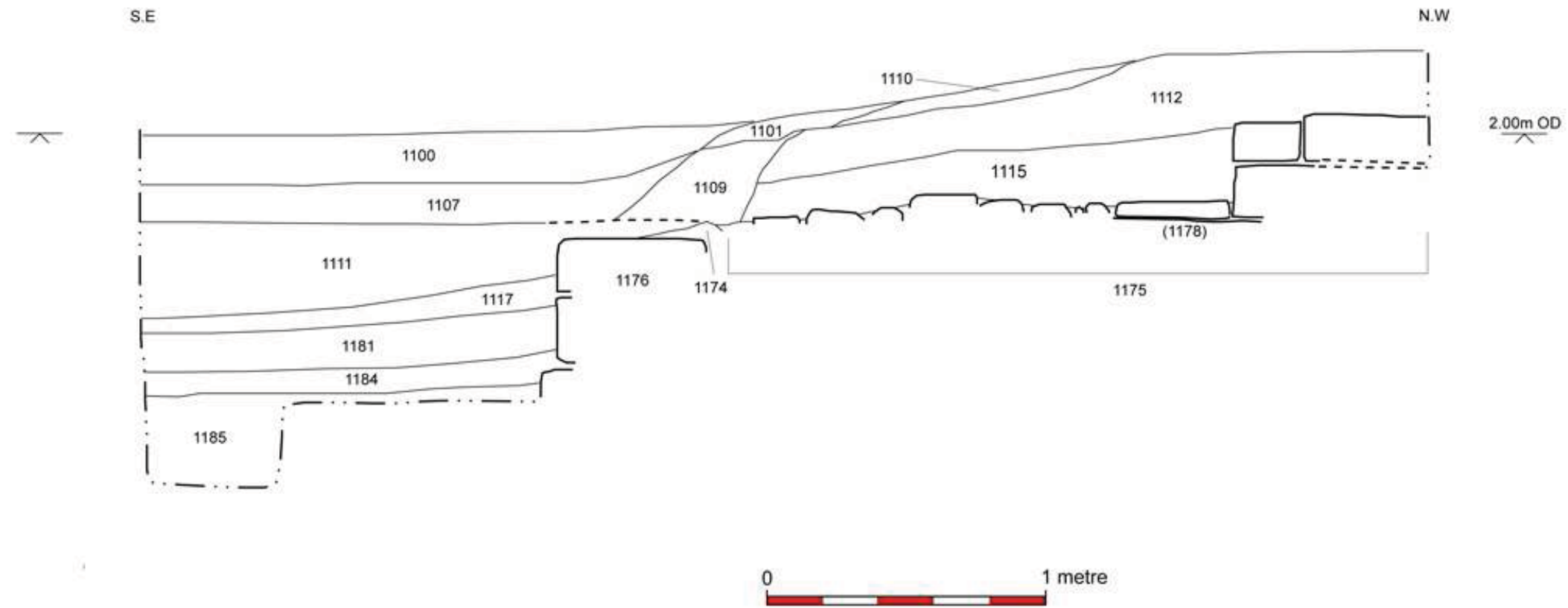


Figure 5 North-east facing section (through quay 1116)

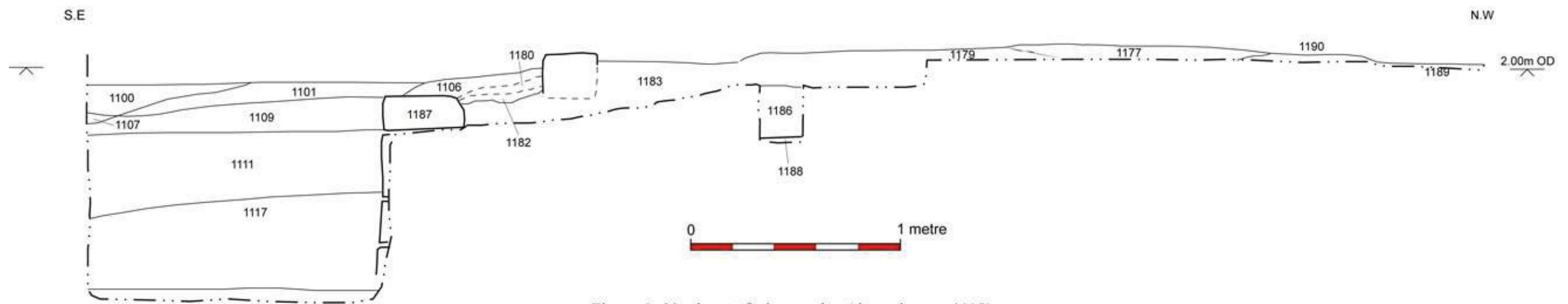


Figure 6 North-east facing section (through quay 1118)

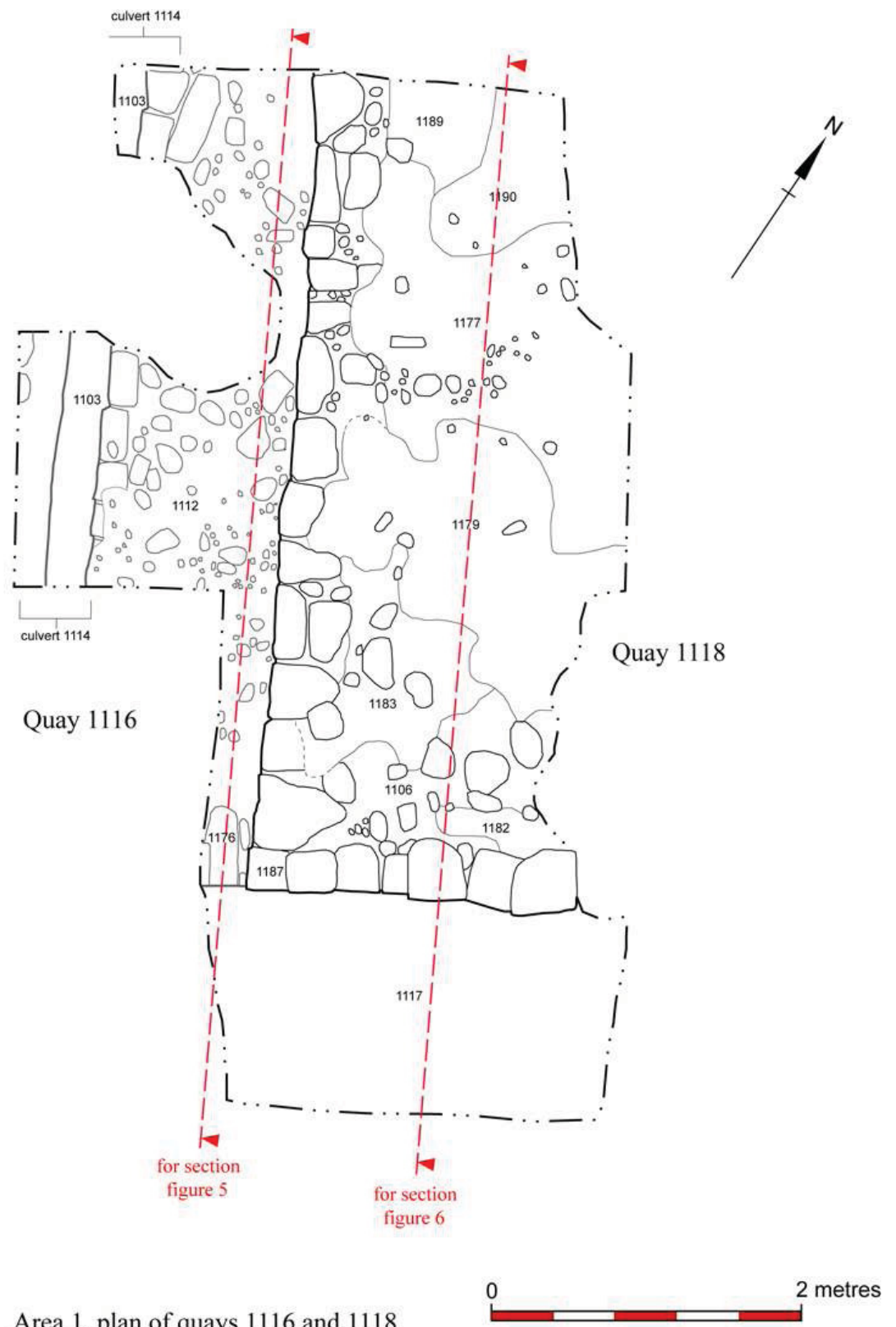


Figure 7 Area 1, plan of quays 1116 and 1118

The earliest feature encountered was a wall of roughly squared sandstone blocks, squared on the external (south-east) face, aligned north-east / south-west (1187). It comprised at least five courses, the lowest three of which were bonded with clayey sand, the next with silty clay and the uppermost with clay. The courses measured 0.15-0.3m high, and the stones (excluding small filler stones) were 0.30-0.64m long. This wall ran for 2.1m from the north-east side of the trench before turning north-west and running for a further 5.3m. The top of the south-east elevation was 2.08m OD, but it is possible that the top of the wall was higher originally; all but one stone of the top course was missing, leaving a concave surface along the upper edge of the wall. The wall extended down to 1m OD, but the bottom was not reached; probing indicated it continued for at least another 0.3m. Wall 1187 is considered to be a riverside wall.



Plate 2

Area 1 looking north-west. Riverside wall 1187 with later riverside wall 1176 (far left)

To the rear of Wall 1187 were two clay layers (1183/1189, 1186) overlying a silty clay layer (1188), at least 0.4m thick overall. There were indications that each layer corresponded to a course of Wall 1187, suggesting that the wall and the layers were built up in tandem. The layers formed the ground surface behind the wall, with the whole structure forming a quay (1118) extending into the River Esk. The return to the north-west appeared to correspond with the boundary between 16 and 17 Baxtergate, which suggests that this quay marked a reclamation restricted to 16 Baxtergate. Tile of 14th-16th century date was found in Context 1183, whereas the latest pot sherd from 1186 suggests a 17th/18th century date.

Overlying the back of the second highest course and lying against the top course of Wall 1187 was a layer of small chalk fragments in light brown/green clay (1182). As this

deposit was very different to the deposits that formed the make-up of Quay 1118, it was suspected that 1182 represented a repair to the face of the wall. Pottery and CBM from this context indicates a 15th/16th century date.

Subsequently, the south-east elevation of Quay 1118 was extended to the south-west through the addition of another sandstone wall (1176). There were at least four slightly offset courses of sandstone blocks, squared on the external face and bonded with light brown clay; these courses did not correspond with those in Wall 1187. A mortar packing (1174) was found against the north-west side of the wall. To the north-west of Wall 1176 were at least four layers of flat-laid roughly hewn sandstone blocks and slabs with occasional cobbles and set in compact light brown clay, a minimum of 0.6m thick overall (1115, 1175, 1178, 1191). These layers evidently formed the new ground level behind the wall. Above 1191 was a 0.1m-thick layer of



Plate 3

Area 1 looking north-east. South-west side of quay 1118 (centre) with culvert 1113 (bottom)

small-medium stones and cobbles set in dark brown silty loam (1112), which formed a firm surface. This structure

(1116) is thought to have been the extension of Quay 1118 into the 17 Baxtergate property to the south-west. The only dating evidence obtained was 14th-16th century CBM from Context 1174.

The uppermost layer of stone blocks (1191) incorporated a drain, formed by laying the blocks in such a way as to form a channel 0.3m wide by 0.3m deep (1113/1114). It was aligned north-west/south-east, but curved more northwards to the north-west; the underlying stone layer 1115 acted as the base. The drain contained mid grey sand (1108), light brown clay (1104) and dark grey gritty silt loam (1103). CBM found in Contexts 1103 and 1108 dates to the 14th-16th centuries, but the uppermost fill (1103) also contained late 17th century pottery.

Lying against Walls 1187 and 1176 on their south-east sides was a series of mid grey silty sands with occasional organic lenses, at least 0.55m thick overall, the top of which

was about 1.30m OD (1181, 1184-5). These are interpreted as alluvial deposits. Similar deposits were found filling the concavity in the upper surface of Wall 1187 (1106, 1180); 1106 also contained many sandstone fragments. It is possible that these deposits were also alluvial, and represented the partial destruction of the riverside wall due to severe flooding. The pottery and CBM from these contexts dates to the 17th/18th centuries.

Several patchy, mostly silt loam layers accumulated on the surfaces of Quays 1116 and 1118 (1110, clay 1177, 1179, 1190 with frequent shell); 1110 also sealed the infilled drain 1113. These deposits are interpreted as build-up material that formed whilst the quays were in use. Pottery and CBM from these contexts are dated to the 17th/18th centuries.

Above the alluvium was a range of deposits, up to 0.7m thick overall: light orange/grey sand (1100/2), black silt loam with moderate clinker, tile and sandstone (1101), light brown silty clay (1105), orange sandy loam with frequent pebbles (1107), organic silt loam with moderate sandstone fragments and occasional tile fragments (1109), organic mid grey sand with moderate small sandstone fragments and occasional iron pan lenses 1111, and sandy clay (1117). These are regarded as levelling deposits, sealing the alluvium and the upper edge of the riverside wall as part of reclamation further into the river. Similar deposits (removed by machine) sealed Quays 1116 and 1118 to a depth of about 0.5m (to about 2.7m OD) and were probably part of the same reclamation episode. Pottery and CBM from these contexts indicate a 17th/18th century date for this activity.

Above the levelling deposits were modern deposits, about 0.8m thick overall (removed by machine).

5.2.2 Area 2

Area 2 was a rectangular trench measuring 6.8m (north-west / south-east) by 4m, to a depth of around 2m below ground level, at the north-west end of the site. It was excavated by machine, and the north-west and north-east sides were then studied and recorded (Figs 7 and 8).

Perhaps the earliest deposit recorded in Area 2 was a dark brown, organic sandy loam with black organic lenses (1154), which is thought to be peat. It was at 2.1m OD in the north corner of the area, then sloped down steadily to the south-west and south-east (beyond the limit of excavation). To the south-east of 1154 was a soft, light grey silty clay with frequent small-large patches of soft black organic silty clay which were concentrated in the uppermost 0.15m (1155), overlain by a similar deposit but with charcoal and wood flecks (1168); these deposits were at least 0.55m thick overall, with the top at 1.8m OD. Deposits 1154-5 and 1168 are interpreted as undisturbed natural deposits, probably the result of alluviation and peat formation along the margins of the River Esk.

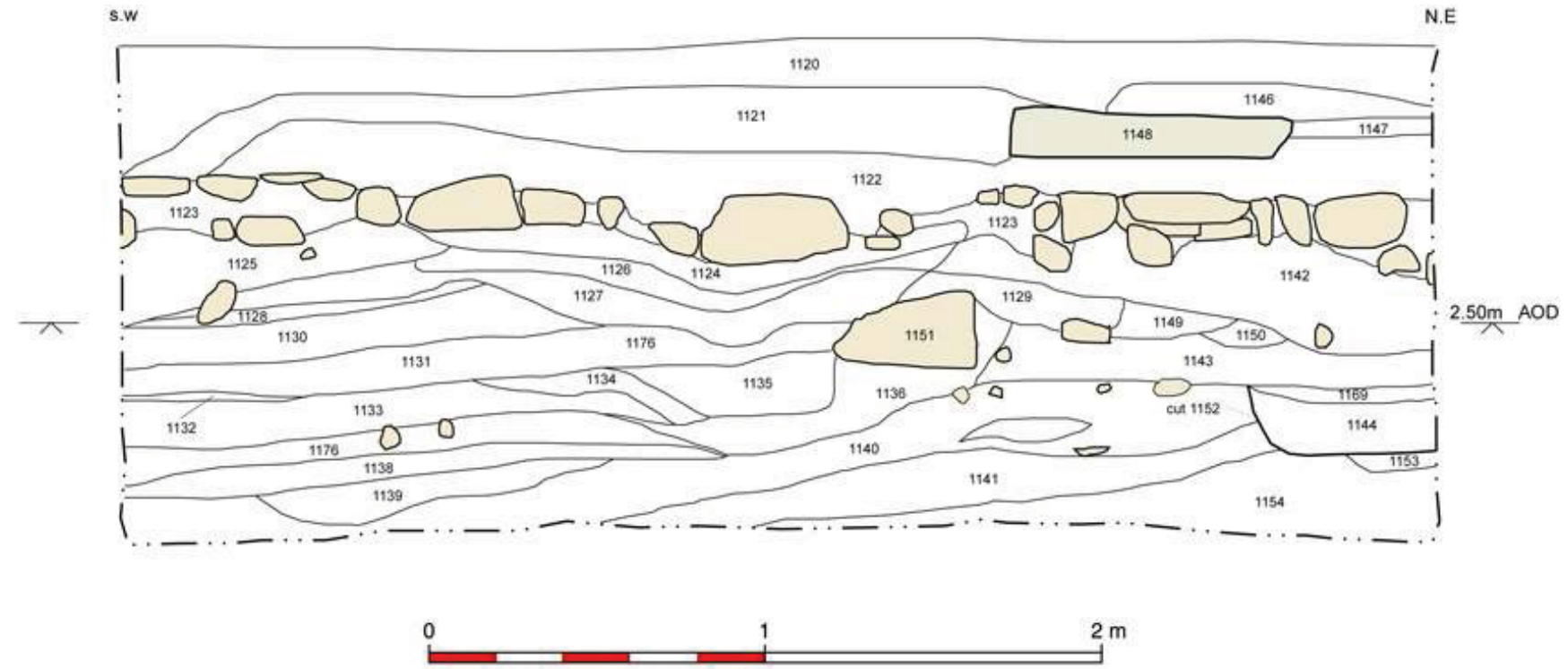


Figure 8 Area 2, south-east facing section



Figure 9 Area 2, south-west facing section

+

Above 1154-5 were several layers (1138-41, 1145, 1153, 1163-7, 1170, 1172-3) with a wide range of textures (clay to sand), colours (light yellow/brown to black) and inclusions (organic material, charcoal and mortar). These layers comprised many smaller deposits, which suggested that they were derived from a variety of sources, including waste material from occupation nearby. The top of these deposits was 2.35m OD at the north corner of the trench, sloping down to 2.1m OD to the south-west and south-east, and they were around 0.3m thick overall. One of the earliest of these contexts (1170) contained 12th century pottery, otherwise 13th/14th century pottery was recovered from Contexts 1140 and 1145.



Plate 4
Area 2, south-east facing section

Cutting layers 1140 and 1165 was a pit measuring at least 0.55m across by 0.2m deep (1152). It contained mid grey/brown clay silt with moderate charcoal flecks (1144), which was sealed with a thin layer of silty clay with frequent charcoal, mortar and red silty clay (possibly daub) flecks and small pieces (1169). This feature was interpreted as a rubbish pit, which presumably lay close to an area of settlement. Fill 1144 contained 12th/13th century pot.

The series of deposits overlying Pit 1152 at the north-west end of Area 2 were very mixed in terms of texture and colour, but tended to have moderate to frequent inclusions of charcoal flecks (1127-37, 1143, 1149-50). It is likely that these were dumps of domestic waste, although it is possible that some were occupation/floors within insubstantial buildings; a large sandstone block (1151) within this sequence could have been a pad to support the upright of a timber building. The top of these deposits was about 2.6m OD. Further to the south-east, the deposits tend to be fewer but thicker (0.15m on average) and more extensive. These soft silty clay deposits were also more

homogeneous with fewer inclusions (1160-2, 1171); they were regarded as dumps if not levelling deposits, raising the ground level to around 2.4m OD. Pottery of 12th century date from Contexts 1161 and 1171 was evidently residual, but the general lack of 14th century pottery from these and other contexts (1137 and 1143) favours a 13th century date for the earlier part of this activity. 13th/14th century pottery from Contexts 1130-1 and 1136 suggest a slightly later date for the latter part of this activity.

Above 1160 at the east corner of the trench was compact orange/brown silty clay (1159). This was in turn overlain by a 0.2m-thick layer of compact, mid grey silty clay with frequent small-large stones and moderate mortar flecks, which extended to the north corner of the trench (1142/1158). The corresponding deposits to the south-west were smaller and varied (1124-6). These deposits appear to have formed a compact stony surface, at about 2.7m OD. Pottery of 12th-14th century date was found in Context 1142, and of mid 13th-early 14th century date in 1124.

A layer of small-large sandstone fragments set in silty clay (1123) at the north-west end of Area 2, is interpreted as a low wall, aligned north-east / south-west to support the sill beam of a timber building. The top of this structure was 2.9m OD.

Above sill wall 1123 was a clay loam with frequent charcoal flecks (1122). The top of this deposit was around 3m OD, and it contained late 15th-mid 16th century pottery. Above 1158 towards the east corner of the trench were the incomplete remains of a compact, mid grey silty clay layer up to 0.2m thick (1157) and friable, grey silty clay (1156). They were regarded as dump deposits. Layers 1156-7 were the uppermost surviving deposits below recent machine clearance.

A slab of concrete (1148) adjacent to a silty mortar layer (1147) in the north corner of the trench marked a ground level in fairly recent times. The concrete slab was overlain by dark brown silty sand (1121, 1146), which might have acted as a levelling deposit. Above 1121 and 1146 was the concrete and hardcore surface of the current building works (1120).

6. CERAMIC BUILDING MATERIAL (by Jane McComish)

A total of 20.485kg of ceramic building material (CBM) was analysed from the site. The CBM was recorded following standard YAT procedures, which included developing a fabric series for the site.

6.1 *Fabrics*

Fabric	Weight	Weight as a % of total	Forms present	Fabric description
WH1	9020	44.03%	Brick	Dark red, uncompacted. Occasional coal, streaks and patches of minute sand.
WH2	3850	18.79%	Brick	Dark red, uncompacted. Frequent minute sand.
WH3	1225	5.98%	Brick	Light red, uncompacted. Occasional coal, limestone, quartz and voids (limestone).
WH4	3560	17.38%	Pan	Medium red, uncompacted. Occasional coal, grass voids, fine sand and limestone voids.
WH5	1300	6.35%	Pan	Medium red, uncompacted. Occasional coal, quartz and moderate limestone voids.
WH6	650	3.17%	Pan	Medium red, uncompacted. Occasional coal and mica. Moderate limestone voids.
WH7	300	1.46%	Pan	Medium red, uncompacted. Occasional coal and mica. Moderate limestone voids.
WH8	185	0.90%	Plain	Dark red, compacted. Occasional coal, moderate limestone voids and quartz
WH9	100	0.49%	Plain	Pale red, compacted. Occasional limestone, mudstone, large quartz fragments and limestone voids. Moderate small quartz
WH10	145	0.71%	Plain	Dark red, uncompacted with a slightly streaky appearance. Occasional coal, grass voids and mica.
WH11	75	0.37%	Plain	Dark red, uncompacted. Frequent fine sand, occasional limestone.
WH12	75	0.37%	Plain	Medium red uncompacted. Occasional fine sand and coal. Moderate irregular limestone voids.
TOTAL WEIGHT	20485			

Table 1: Summary of brick and tile fabrics present

A total of 12 fabrics were identified which are described in Table 3 above, three were seen only on bricks (WH1-3), four were pan tile fabrics (WH4-7) and the remainder were plain tile fabrics (WH8-12). As this fabric series is based upon a single site it is impossible to know how these fabrics were used either chronologically or spatially within Whitby as a whole. They will however for a basis for any further research into CBM fabrics within the town.

6.2 Forms

The only forms present were a tiny quantity of plain tiles of 13-16th century date, abundant pantile fragments of 17th century or later date and bricks of post-medieval date. The overwhelming majority of the material was 17th century or later.

The bulk of the material recovered was brick. Distinguishing between medieval and post-medieval bricks can be difficult, and is normally done on the basis of size. Unfortunately many of the brick fragments from this site were too small to obtain any measurements and so could not be dated on the basis of size. Fragments where the thickness of the bricks survived were all clearly of post-medieval date. In addition, all of the bricks were slop-moulded, (where the mould is wetted rather than sanded). Slop moulding is a technique more commonly associated with the post-medieval period though it is occasionally present on medieval bricks (S. Garside-Neville pers. comm.). The size and method of manufacture strongly suggests that all the bricks present are of post-medieval date.

Form	Total weight	Weight as a % of total
Plain	680	3.32%
Pan	5710	27.87%
Brick	14095	68.81%

Table 2: Summary of CBM forms present

Context	Spot date	Forms
1002	16-18th	Brick
1004	17th+	Pan
1010	19th+	Wall Tile
1012	16-18th	Brick
1100	17th+	Brick, Pan
1101	17th+	Brick, pan
1103	14-16th	Plain
1108	14-16th	Plain
1109	17th+	Pan
1111	17th+	Brick, Pan
1117	17th+	Brick, Pan
1174	14-16th	Plain?
1179	17th+	Brick, Pan, Plain
1180	17th+	Pan
1181	17th+	Brick, Pan, Plain
1182	14-16th	Plain
1183	14-16th	Plain
1184	16-18th	Brick, Plain

Table 3: Spot dating of CBM

6.3 Conclusion

The quantity of material recovered is relatively small, largely of 17th century or later date, and contained nothing of particular significance. The fabric series created for the site will however be of use in studying any future sites in Whitby, which would enable a picture of the use of CBM within the town to be built up. In addition the material should help with the dating of individual contexts.

7. POTTERY (by Anne Jenner)

7.1 Introduction

Groups of pottery were recovered from the Watching Brief (10 sherds), excavation of Area 1 (210 sherds) and Area 2 (23 sherds), making 243 sherds in total. The following attributes were recorded: number of sherds, their fabric, form, date, and, where possible, comments are made about their likely provenance and condition. There are also further recommendations at the end of the report.

Context	Quantity	Spot date	Details
1003	4	late 15th/16th century	2 Local? Splash Glazed Ware collar rimmed wide strap handled pitcher, not dissimilar to those from Beverley, York and Lincoln but, despite the fabric having oxidized external surfaces and margins and a dark grey reduced core it is not identical to material from the above sources. The glaze is treacly with green and yellow areas and a metallic sheen. 12th century. (see Jennings 1992, 37 Nos 2 and 3). 2 Humber type Ware lower jug? wall late 15th/16th century.
1004	1	1650 - 1800	1 Post-medieval Red Earthenware.
1010	1	late 17 th /18 th century	1 English Red Earthenware. Local? 1650 - 1800
1020	1	12th -14th century	1 Local? Mottled green/brown lustrous glazed jug. Coarse sandy lightly reduced fabric with buff/orange internal surfaces, moderate mica, black and red iron ore and fairly laminar fracture. Occasional elongate voids where carboniferous? Material has been burnt out. Possibly from an unknown source near Whitby.
1102	3	late 17th/18th century	1 TGW. Plain white. Late 17th/18th century. 1 Coarse sandy ware. Local to Whitby? 12th - 14th century. 1 Red Earthenware with green glaze. 1650 - 1800
1103	2	late 17th century	1 Late medieval Humber-type ware. 15th/16th century 1 English Red Earthenware. 1650 - 1800
1106	3	late 17th/18th century	1 Ryedale-type of green glazed red earthenware bowl. 17th century.

			1 English stoneware. Late 17th/18th century. 1 burnt miscellaneous sherd.
1108	7	late 17th/18th century	1 burnt lightly sanded ware. 1 fine Reduced green glazed-type 4 with bubbled glaze like Ryedale-types. 15th/16th century - early 18th century. 1 English stoneware (underfired) with brown glaze. Late 17th/18th century. 2 abraded sherds of Reduced green glazed ware. 15th/16th century. 1 chip ?Cologne/Frechen stoneware. 1550 - 1700. 1 Late Reduced Green glazed ware. 15th/16th century
1109	9	17th/18th century	2 Ryedale-type ware with classic squared rim with slightly concave outer edge (often sooted round edge suggesting use as a lid over a wide cooking vessel). Late 16th - 18th century. 2 English Red Earthenware with brown glaze. 1650 - 1800. 2 Hambleton-type ware with mottled green glaze. Late 13th - late 16th century. 1 Late Humber ware. Late 15th/16th century. 1 Langerwehe stoneware jug. 1350 - 1500. 1 White coarse ware.
1110	5	17th/18th century	1 TGW saucer? Late 17th/18th century. 1 STSL. 1600 - 1800. 1 English Red Earthenware with thin walls and dark brown glaze. 17th/18th century. 1 Local? Post-medieval green glazed red ware. 1 Late RGG with thick walls and buff margins. 15th/16th century.
1111	20	17th - early 18th century	1 unknown brown glazed sherd with light reduced fabric. 1 TGW with lead glazed external surface. Early to mid 17th century. 1 SWSG. 1720 - 1770. 7 TGW with unusual decoration and light green colour on one sherd. Late 17th/18th century. 1 English Red Earthenware with folded handle copying Low Countries style. 1650 - 1800. 1 Ryedale-type post medieval green glazed ware. 4 English Red Earthenware. 1650 - 1800. 1 STSL Vessel with holes, probably used for warming food or under skirts with yellow glaze. 1600 - 1800. 2 Brandsby-type green glazed ribbed small rounded jugs. 1 English Red Earthenware with thin speckled glaze. 1600 - 1800.

1117	26	late 17th/early 18th century	<p>2 Westerwald jug sherds with manganese (purple) decoration. Purple is first used in around 1665 and becomes common in the 17th century, continuing into the early 18th century (Noel-Hume 1969, 281). Late 17th/early 18th century.</p> <p>7 Ryedale-type ware. Late 16th to early 18th century.</p> <p>3 STSL. 1600 - 1800.</p> <p>1 Black glazed ware. 1600 - 1700.</p> <p>1 Cologne/Frechen stoneware. 1550 - 1700.</p> <p>1 English Red Earthenware pipkin base and foot. 17th century.</p> <p>1 TGW with lead glazed external surface. 17th century.</p> <p>1 STSL (plain yellow glaze). 1600 - 1800.</p> <p>3 TGW with pinkish-white glaze. 1600 - 1800.</p> <p>1 TGW with white glaze. 18th century.</p> <p>2 TGW with decoration including dark blue script like ovals and manganese. Late 17th/18th century.</p> <p>1 Late medieval transitional purple glazed sherd with orange-skin surface texture. Late 15th/16th century.</p> <p>1 burnt buff coloured Martincamp flask (Hurst Type I. 1575 – 1550).</p> <p>1 English Red Earthenware lid. Burnt.</p>
1122	2	late 15th - mid 16th century	<p>1 Raeren jug. 1480 - 1550.</p> <p>1 Humber ware jug handle. Late 15th century.</p>
1124	1	mid 13th - early 14th century	<p>1 Tees Valley "B" ware (dominant in Hartlepool in the early mid 13th - early 14th century but iron-rich clays of this type are 1st used in the Industry in the mid 13th century).</p>
1130	1	13th/14th century	<p>1 Bichrome glazed jug rim with good even and lustrous suspension glaze not from East Yorkshire or the North-east. 13th/14th century.</p>
1131	1	13th/14th century	<p>1 Brandsby-type or similar but grittier small rounded jug neck. 13th/14th century</p>
1135	2	late 12th/13th century	<p>2 small chips splash glazed reduced ware. ? Early RGG. Late 12th/13th century.</p>
1136	1	13th/14th century	<p>1 Lightly reduced sandy Brandsby-type green glazed sherd with faint ?roller stamping. 13th/14th century</p>
1137	1	12th/13th century	<p>1 un-attributable medieval coarse ware with splash glaze, oxidized margin and reduced core. Local? 12th/13th century.</p>
1140	1	13th/14th century	<p>1 chip of mottled green glazed white ware with flecks of copper in the glaze. Abundant sub-angular white quartz and flecks of black iron ore. Not dissimilar to Brandsby-type ware but</p>

			much grittier. 13th/14th century.
1142	1	12th - 14th century	1 Medieval unglazed coarse ware. 12th - 14th century.
1143	2	12th - 14th century	1 Brandsby-type ribbed jug neck with lustrous green glaze. 13th/14th century. 1 Coarseware, unglazed, sooted. 12th - 14th century.
1144	1	12th/13th century	1 gritty coarse ware unglazed. Reduced light grey core with thick pinkish-buff margins. 12th -13th century.
1145	1	13th/14th century	1 Reduced green glazed ware with thick white external margin and light reduced core. 13th/14th century.
1161	2	12th century	2 Splash glazed ware. 12th century. One sherd heavily sooted with whitish slip/concretion on internal surface.
1170	3	12th century	3 Splash glazed ware sherds with sooting on base. 12th century.
1171	3	12th century	3 Splash glazed ware sherds. Two with sooting and one with white concretion inside.
1179	12	17th - early 18th century	1 Highly decorated medieval jug with applied strip with roller stamped notch decoration and mottled green glaze. Perhaps a finer version of the local white firing clay. The fabric is lightly reduced with white margins. It has abundant black iron ore and moderate quartz and haematite. Sparse burnt organic material is also present. These types of inclusion are not dissimilar to those found in RGG types 1 to 3 in the north-east (see Ellison 1981, 107). Occasional areas of rounded quartz and haematite up to 4mm across. 13th century. 1 Ryedale-type ware with mottled green glaze. Late 16th to early 18th century. 2 Cologne/Frechen stoneware Bellarmine with medallion. 1550 - 1700. 1 STSL yellow and brown marbled decoration. 1600 - 1800. 1 TGW with blue and white decoration. Late 17th/18th century. 4 English Red Earthenware. 1650 - 1800. 1 Ryedale-type ware but with red fabric. Late 16th - early 18th century. 1 CBM. Medieval.
1181	27	17th - 18th century	3 Cologne/Frechen stoneware. 1550 - 1650. 1 Westerwald stoneware. 1600 - 1800 3 STSL. yellow glazed pipkin base and foot. 1600 - 1800. 3 English Red Earthenware. 1650 - 1800. 1 English Red ware with dark brown glaze. 1650 - 1800. 1 Slip-trailed ware (local). 1600 - 1800.

			1 STSL with white slip on a red fabric. 1600 - 1800. 1 Tudor Green Bichrome ware with yellow internal glaze and green glaze externally. 15th/16th century. 5 Ryedale-type ware bowls. Late 16th - early 18th century. 1 burnt white ware. 2 Gritty local medieval coarse ware. 12th century. 1 Fine walled white ware with lustrous glaze. Local? 13th century. 4 Late RGG. 15th - 16th.
1182	1	15th/16th century	1 Tudor green glazed whiteware. 15th/16th century.
1184	23	late 17th/early 18th century	13 Ryedale-type ware. Late 16th - early 18th century. 3 Westerwald stoneware with manganese decoration. Late 17th/early 18th century. 1 White TGW. 18th century. 4 English Red Earthenware. 1600-1800. 2 Ryedale-type ware with red oxidised fabric. Late 16th - early 18th century.
1186	2	17th century	1 STSL with mottled brown iron glaze. 1600 - 1800. 1 Green glazed ware with white fabric and vertical applied strip. Late medieval.

Table 4: Pottery spot dating and details

7.2 Comments

7.2.1 Watching Brief (Contexts 1003; 1004; 1010; 1011)

The Splash glazed ware (1003 is of particular interest as it is of a classic 12th century form. The wide strap handle and collared rim are typical of shouldered jug/pitchers of this date (MPRG 1998 3.1.9). Although it does not appear to have any direct parallels in Yorkshire, Humberside or the north-east, the fabric is not dissimilar to that of the Beverley wares (Hayfield 1985, 374). However, it may represent a hitherto unknown industry, based in the Whitby area. The medieval green glazed sherd (1020) also points towards some sort of activity in the 12th and 13th centuries, and may be of a more local type.

Late medieval and post-medieval activity is indicated by the presence of late 15th/16th century Humber ware (1003) and the late 17th/18th century English Red Earthenware (1004).

7.2.2 Area 1 (Contexts 1102-3; 1106; 1108-11; 1117; 1179; 1181-2; 1184; 1186)

Most pottery types are of post-medieval date, particularly 17th/18th century. The lack of abrasion on these wares suggests that they were from primary deposits.

7.2.2.1 Medieval

The probably local sandy ware sherd (1102) is residual.

7.2.2.2 Late medieval/early post-medieval

Late 13th to early 16th century Humber ware jugs (1109) and Hambleton-type ware dishes (late 13th to 15th century) occur in small quantities (1101, 1109) suggesting little activity/use of pottery in the late medieval/early post medieval period. Ryedale-type dishes (late 16th century to early 18th century) are more common suggesting a slight increase in activity at this time. All the plain green glazed vessels might be considered to be of a fairly functional nature, some of which may be a local variation of a regional tradition. They may have been used for food preparation and cooking rather than presentation.

One burnt sherd from a Martincamp flask (possibly Hurst's Type I: 1475-1550 or Type III: 17th century) (1117), represented the only French import found on site. However, the condition and size of the sherd make it difficult to be certain whether it is a pre-dissolution or 17th century type.

7.2.2.3 Post-medieval

The functional, plain green glazed wares are augmented by the English Red Earthenwares in the 17th century, but alongside these the majority of the sherds appear to represent finer table wares. These include Staffordshire slip ware mugs, tankards and dishes, White salt-glazed stoneware bowls and tin-glazed ware dishes. These may reflect a certain level of affluence, over and above that reflected in the functional types mentioned above. The tin-glazed wares, for example, were decorated in blue, green, and orange. This might indicate their place of manufacture but also signify a need for something other than pure functionality and therefore a level of affluence not represented previously

It is mainly in the 16th century, as on many other sites in Britain, that any quantity of pottery from Germany is reflected in the ceramic assemblage, though one sherd, possibly of Langerwehe-type (AD 1350 – 1500) was found (1109).

The majority of the German stone wares might be considered to be of late 16th date at the earliest and probably 17th to 18th century in date. These include a few sherds of Werra-type ware dishes dating to 1550–1650 (1100-1), Cologne/Frechen jugs dating to 1550-1700 (1101, 1117, 1179) and manganese-decorated Westerwald jugs dating to 1680-1800 (1117, 1181, 1184).

7.2.3 Area 2 (Contexts 1122; 1124; 1130-1; 1135-7; 1140; 1142-5; 1161; 1170-1)

Splash glazed ware and coarse ware sherds of 12th century date occurred in the earliest deposits (1161, 1170-1) and residually in 13th/14th century contexts.

The Green-glazed wares indicate that much of the activity recorded in this area dates to the 13th/14th centuries (1135, 1143, 1145). Some of these are of a buff-coloured, perhaps

local clay, others are reduced. The reduced green-glazed wares form part of a widespread regional tradition, stretching from the Humber to Newcastle and the north-east, making it difficult to be certain of their precise provenance. However, the mid 13th to early 14th century Tees Valley Ware sherd (1124) is clearly from the Hartlepool area (P. Didsbury pers. comm.). These sherds may have arrived in Whitby overland or via the well-established shipping trade carrying coal, wool, hides and other products up the east coast or may have been part of a much wider trade network around the North Sea at this time (Dunning 1968).

The material found in Area 2 clearly reflects a fairly uninterrupted sequence, probably almost entirely of local/regional medieval ceramics, from the 12th century to the late 15th/early 16th century. It appears to be waste material from occupation to judge by the presence of associated layers with flecks of charcoal and sooting on many of the jar sherds, suggesting their use as cooking pots.

7.3 Recommendations

The possibly local 12th century Splashed glazed ware should be classified more accurately and compared with similar local and regional types. Further petrological study, including thin section and ICPS, is recommended.

The Reduced green-glazed wares and medieval fabrics should be characterised in order to understand the nature of the settlement and its economy.

Further characterisation and comparison of the tin-glazed wares with examples from known English and Scottish production sites including London, Liverpool and Bristol may shed further light on their provenance. Equally, the slip wares may be more local or emanate from numerous possible sites including Berwick along the east coast and further inland.

Other sites in the area have also produced small quantities of medieval pottery. In particular, 63-64 Baxtergate appears to have produced 12th-13th century pottery, albeit as residual material in 14th century contexts (MAP 1992). It would be useful to compare these assemblages with that from New Quay Road to elucidate the society and economy of the medieval town and to improve the usefulness of the pottery as a dating tool.

8. SMALL FINDS (by Nicola Rogers)

8.1 Comments

This small assemblage appears to be entirely of post-medieval date. The copper alloy pins are of a form occasionally found as early as the 16th century, but they are usually associated with the post-medieval period. The tobacco pipes are mostly late 17th- early 18th century in date, and all the vessel glass is typically post-medieval. The slag points to metalworking, perhaps taking place on the site, as some of the other finds appear to have metalworking debris attached.

Context	Description	Find	Material	Name
1010		SF00001	Lead Alloy	Key
1100	levelling	SF00012	Glass	Fragments
1100	levelling	SF00013	Fired Clay	Tobacco Pipe Fragments
1100	levelling	SF00014	Slag	Metal-working Slag
1100	levelling	SF00015	Iron Pot Coal Stone Slag	Fragment
1101	levelling	SF00004	Fired Clay	Tobacco Pipe Fragments
1101	levelling	SF00005	Glass	Fragment
1101	levelling	SF00006	Iron	Fragment
1101	levelling	SF00007	Iron	Wire
1101	levelling	SF00008	Iron	Nails
1101	levelling	SF00009	Slag	Slag
1102	levelling	SF00002	Fired Clay	Tobacco Pipe Fragments
1102	levelling	SF00003	Iron	Nail
1106	levelling	SF00042	Fired Clay	Tobacco Pipe Fragment
1108	backfill	SF00010	Glass	Fragment
1109	dump	SF00011	Fired Clay	Tobacco Pipe Fragments
1110	occupation	SF00043	Slag	Slag
1111	dump	SF00035	Glass	Fragments
1111	dump	SF00036	Fired Clay	Tobacco Pipe Fragments
1111	dump	SF00037	Copper Alloy	Pin
1111	dump	SF00038	Slag	Slag
1117	levelling	SF00020	Leather Iron	Object Shoe Heel
1117	levelling	SF00021	Glass	Fragment
1117	levelling	SF00022	Fired Clay	Tobacco Pipe Fragments
1117	levelling	SF00028	Glass	Fragment
1117	levelling	SF00030	Copper Alloy	Pin
1117	levelling	SF00031	Iron	Wire
1117	levelling	SF00032	Copper Alloy	Pins
1179	Structure make up	SF00023	Iron	Concretion
1179	structure make up	SF00024	Iron	metal working fragment
1179	structure make up	SF00025	Iron	Fragments
1179	structure make up	SF00026	Glass	Fragment
1180	natural	SF00039	Glass	Fragment
1180	natural	SF00040	Fired Clay	Tobacco Pipe Fragments
1181	natural	SF00016	Iron	Concretion
1181	natural	SF00017	Iron	Nails
1181	natural	SF00018	Stone	Fossil
1181	natural	SF00019	Fired Clay	Tobacco Pipe Fragments

1181	natural	SF00033	Copper Alloy	Pin
1181	natural	SF00034	Glass	Fragment
1184	natural	SF00027	Iron	Nails
1184	natural	SF00029	Copper Alloy	Pin
1184	natural	SF00041	Fired Clay	Tobacco Pipe Fragments

Table 5: Small finds by context

8.2 Recommendations

The small finds indicate the range of crafts taking place in the town during the post-medieval period, but not necessarily on this site. Other than the possible medieval pins further analysis of these finds is considered unnecessary.

9. ENVIRONMENTAL ASSESSMENT (by Örne Akeret, John Carrott, Juliet Mant, Deborah Jaques and Stewart Gardner; Palaeoecology Research Services Ltd)

9.1 Introduction

Three sediment samples ('GBA'/'BS' sensu Dobney et al. 1992) and one box of hand-collected bone were submitted to Palaeoecology Research Services for an evaluation of their bioarchaeological potential.

9.2 Methods

The sediment samples were inspected in the laboratory and their lithologies were recorded using a standard *pro forma*. Subsamples were processed, broadly following the procedures of Kenward *et al.* (1980; 1986), for the recovery of plant and invertebrate macrofossils. Before sieving the subsamples were disaggregated in water for 24 hours or more. Their volume was measured in waterlogged state. In the case of Samples 4 and 6 (Contexts 1155 and 1144), the very small residues were dried. The washover from Sample 4 was subjected to paraffin flotation and that from Sample 6 was dried after an initial examination as it was largely composed of charred material.

Plant remains (and the general nature of the residues, flots and washovers) were recorded briefly by 'scanning', identifiable plant taxa and other components being listed on paper. Notes on the quantity and quality of preservation were made for each fraction. Nomenclatures for plants follow Stace 1997.

For the hand-collected vertebrate remains, data were entered directly into a series of tables using a purpose-built input system and *Paradox* software. Subjective records were made concerning the state of preservation, colour of the fragments and appearance of broken surfaces ('angularity'). Additional information, such as dog gnawing, burning, butchery and fresh breaks, was noted, where applicable.

Fragments were identified to species or species group using the PRS modern comparative reference collection. Fragments not identifiable to species were described as the

‘unidentified’ fraction. Within this fraction fragments were grouped into categories: large mammal (assumed to be cattle, horse or large cervid) and medium-sized mammal (assumed to be caprovid, pig or small cervid). These are shown as ‘Unidentified’ in Table 6.

9.3 Results

The results are presented in chronological order. Archaeological information, provided by the excavator, is given in square brackets. A brief summary of the processing method and an estimate of the remaining volume of unprocessed sediment follows (in round brackets) after the sample number.

9.3.1 Context 1155 (?alluvial deposit, probably pre-dating medieval riverside activity)

Sample 4/T (2 kg/2.1 litres sieved to 300 microns with washover and paraffin flotation; approximately 2 litres of unprocessed sediment remain)

Moist, mid grey-brown (internally black – sulphide staining), brittle to crumbly (working soft), slightly sandy clay silt. There were no obvious inclusions.

The medium-sized washover (~200ml) and very small flot (~10ml) were mostly of well preserved (by anoxic waterlogging) plant remains. The washover consisted mainly of uncharred wood, straw, leaf fragments, buds and charcoal. Identified plant remains (from both the washover and the flot) included representatives of corncockle (*Agrostemma githago* L.), stinking chamomile (*Anthemis cotula* L.), mosses (Bryophyta – including *Sphagnum*), cornflower (*Centaurea cyanus* L.), petty spurge (*Euphorbia peplus* L. – one seed), flax (*Linum usitatissimum* L. – several capsule segments), apple/pear (*Malus/Pyrus* – pericarps), grass family (Poaceae), knotgrass (*Polygonum*), bracken (*Pteridium aquilinum* (L.) Kuhn), weld (*Reseda luteola* L.), blackberry (*Rubus fruticosus* L. agg.), dock (*Rumex*) and common nettle (*Urtica dioica* L.).

The flot also gave small numbers of very well preserved invertebrate remains. These included a few fly puparia and mites (*Acari*, one of which was suspiciously complete), sclerites of staphylinid and carabid beetles and some fragments of psyllid (jumping plant lice) wings. The remains were rather few for interpretation but their state of preservation suggests that a large subsample (of, say, 15 kg) would yield a useful assemblage.

The small residue (dry weight 0.14kg) was mostly sand and stones (most to 12mm), with mortar/plaster (1g), fragments of wood/bark (to 25mm; 5g) and a hazel (*Corylus*) nutshell fragment. A few small fragments of fish bone were recovered, but all were unidentifiable fish spines. There were also eleven fragments of shell (total weight ~1g), ten were unidentified fragments (to 6mm) and the eleventh a fragment of periwinkle (*Littorina littorea* (L.); to 15mm).

9.3.2 Context 1144 (pit fill in the back yard of medieval properties lining an adjacent street)

Sample 6/T (2 kg/2 litres sieved to 300 microns with washover; approximately 2 litres of unprocessed sediment remain)

Moist, mid grey-brown, brittle to crumbly (working soft), slightly sandy clay silt, with stones (of 6 to 20 mm and over 60 mm).

The small washover (~10 ml) was initially examined wet but then dried as it consisted mainly of small charred particles, some of which were wood, whilst others were fragments of straw or leaf. A few heather (*Calluna vulgaris* (L.) Hull) stems with leaves and several seeds of rush (*Juncus*) were also present. Other remains included a few grains and rachis segments of naked wheat (*Triticum aestivum/durum/turgidum*) and one seed of the pea family (Fabaceae).

The small residue (dry weight 0.31 kg) was mostly sand and stones (to 27 mm), with traces of mortar/plaster (to 18 mm; 3 g), shell (~10 fragments of unidentified marine shell; <1 g) and charcoal (to 18 mm; 3 g). A small assemblage of bone was recovered, which amounted to 87 fragments, of which 75 were fish and the remainder were mammal. The latter could not be identified to species; the fish bone, however, included the remains of ling (*Molva molva* (L.)), haddock (*Melanogrammus aeglefinus* (L.)), gadid, herring (*Clupea harengus* L.) and flatfish (Pleuronectidae). The ling quadrate represented a large fish of at least 1.5 metres in length.

9.3.3 Context 1179 (?dumping to form new ground surface of the quay – late medieval/post-medieval – some petrol contaminant evident)

Sample 10/T (2kg/2.1 litres sieved to 300 microns with paraffin flotation; approximately 3 litres of unprocessed sediment remain)

Moist, mid to dark grey-brown, brittle to crumbly and layered in places, slightly clay silty sand (?ashy). Stones (6-60mm) were present.

The tiny flot (~3ml) was mostly of plant detritus, with a few 'seeds' (see below) and traces of invertebrate cuticle (including one eroded and broken unidentified beetle elytron and two leg parts). The large wet residue (~1 litre) consisted of uncharred wood, charcoal and amorphous charred fragments. Only very few 'seeds' were present (a few in the flot) of the following taxa: goosefoot family (Chenopodiaceae), wild strawberry (*Fragaria vesca* L.) and grass family (Poaceae).

9.3.4 Hand-collected vertebrate remains

In total, one box of vertebrate remains (of approximately 20 litres), amounting to 132 fragments, was recovered from ten deposits, provisionally dating from the 16th to the 18th centuries. Several deposits were levelling layers, but dumps, an occupation layer and the in-fill of the quay also produced animal bone. Six of the fragments were measurable and there was one mandible with teeth *in situ*.

Material from the different contexts varied in preservation. Most fragments were recorded as being of good or fair preservation, however, some variability was noted within the material from Context 1111, whilst fragments from Context 1101 were rather poorly preserved. Colour of the remains was quite variable, although several deposits (1100, 1109, 1111, 1117, 1179 and 1181) included dark brown fragments, which may indicate waterlogged conditions.

Dog gnawing and burning were scarce, but fresh breaks were noted on the bones from most deposits. Evidence of butchery was also commonly encountered and included several split cattle metapodial shafts (Contexts 1100, 1117 and 1181) and many unidentified fragments of rib and shaft which had been heavily chopped.

Remains of cattle and sheep/goat were the most common, with a few fragments of both pig and fish also being recovered. Unidentified remains, including bones of both large and medium-sized mammals, accounted for much of the assemblage. The two fish bones were of gadid, with a premaxilla probably being cod (*Gadus morhua* L.).

A number of cattle bones, several of which were measurable, were noted as being from large animals. These fragments could provide useful information concerning the improvement of cattle during the late medieval/early post-medieval period.

Species		16 th -17 th century	18 th century
<i>Sus f. domestic</i>	Pig	-	2
<i>Bos f. domestic</i>	Cow	7	14
Caprovid	sheep/goat	7	7
Fish		1	1
Unidentified		25	68
Total		40	92

Table 6: Hand collected vertebrate remains

9.4 Discussion and statement of potential

The plant assemblages recovered from the three samples from New Quay Road showed considerable differences. Context 1144 produced many small charred fragments. These, together with the remains of charred heather (*Calluna vulgaris* (L.)), are perhaps most likely to represent debris from the burning of peat. There was an absence of larger charcoal fragments, which might suggest that peat (rather than wood) was being burnt as fuel. This was also the only deposit from which cereal remains were recovered.

Plant material from Context 1155 was primarily waterlogged and mostly well preserved. The rich assemblage included a large number of uncharred seeds and fruits which represented the remains of cultivated plants and of wild species of different habitats: arable land, waste places, heath land and possibly hedgerows.

In contrast, plant remains from Sample 10 (Context 1179) were rather sparse and interpretative conclusions could not be made.

Only Sample 4 (Context 1155) gave any quantity of invertebrate remains. These were few in number but often very well-preserved. The quantity of remains was too small to be of any great interpretative value but did suggest that processing of a very large subsample (of the order of 15 kg) would yield a useful assemblage.

Excavations at New Quay Road, Whitby produced a small assemblage of vertebrate remains dating to the late medieval/early post-medieval and post-medieval periods. Preservation was, on the whole, quite good, although few fragments that could provide age-at-death and biometrical data were recovered. The remains included some cattle butchery waste but there was also a component of domestic rubbish in the form of fish and medium-sized mammal remains. The small size of the assemblage renders this material of only limited interpretative value.

These remains do, however, show that there is some potential within this area for the survival of bones and further interventions in the vicinity may produce a larger assemblage of greater interpretative value. Material of post-medieval date is frequently neglected or discarded, however, where zooarchaeological data exists from well-dated early and later post-medieval assemblages, significant changes in the shape, size and age at death of domestic livestock has been seen. This type of evidence can provide specific information about changes in agricultural practices prior to and during this historically important period.

Information concerning the development of the fish trade is also somewhat sparse and Whitby is a significant centre for such activities. If a larger assemblage of systematically recovered fish remains were recovered from this part of Whitby then this might provide important information to aid our understanding of the exploitation of past fish stocks and for reconstructing trading patterns.

9.5 Recommendations

Whilst two of the samples did not contain enough identifiable plant material to justify further work, the well-preserved waterlogged remains from Context 1155 should be studied in greater detail. This sample shows considerable potential for archaeological interpretation and environmental reconstruction. Further study of the invertebrate remains from this deposit (in conjunction with the plant remains) would also be of value but would require the processing of a much larger subsample (of greater size than currently available) to produce an interpretatively valuable assemblage. Dating of this deposit would be required to provide a temporal context for the remains.

In spite of the paucity of data from animal bone assemblages of post-medieval date, further investigation of the vertebrate remains is not warranted because of the small size of this assemblage.

Any further excavations in this part of Whitby should allow for the systematic collection and assessment of samples from any deposits similar to Context 1155. In addition, the possibility of recovering a larger and more interpretatively valuable vertebrate assemblage should be considered (in particular any deposits with concentrations of fish remains should be investigated).

All of the remaining material from this excavation and the fossils extracted from the processed subsamples should be retained for the present.

All material is currently stored by Palaeoecology Research Services, along with paper and electronic records pertaining to the work described here.

10. ARCHAEOLOGICAL DISCUSSION AND CONCLUSION (Figure 10)

10.1 *Preservation and depth of archaeological deposits*

Medieval occupation deposits about 1m thick overall were present at the north-west end of the site. The top of these deposits is about 2.5m OD, some 1.5m below the current ground level. To the south-east and extending to the middle of the site are late medieval/early post-medieval levelling deposits up to 2m thick, associated with stone riverside walls. The top of these features also lie at about 2.5m OD, 1.5m below ground level.

Overlying the medieval deposits at the north-west end of the site are earlier post-medieval deposits about 0.5m thick, the top of which are 1m below ground level. Towards the south-east end of the site are earlier post-medieval levelling dumps and riverside walls, also within 1m of the current ground level.

At depths greater than 1.5m below ground level the deposits are damp and below 2m BGL they are waterlogged. Consequently, the preservation of organic material in the medieval deposits and the lower-lying post-medieval deposits is excellent.

10.2 *Period-by-period analysis*

10.2.1 *Prehistoric to Anglo-Scandinavian (to 11th century AD)*

The alluvial deposits encountered probably elucidate the river regime of the River Esk estuary prior to human settlement on the riverbank hereabouts. The combination of alluvium and organic deposits (presumably peat formation) points to the site lying on the tidal margins of the river.

No evidence was found of human activity on the site dating to these periods. Anecdotal evidence of a sandbank and mooring posts close to Baxtergate (see Daysh 1958) do not dispel the notion that alluvium from the River Esk extended right up to the solid geology through which the river channel was cut. As it seems the south-east side of Baxtergate was dry land soon after the Norman Conquest (see Medieval, below), any moorings in this area would point to earlier, probably Anglo-Scandinavian activity.

10.2.2 *Medieval (11th to 16th centuries)*

Levelling deposits overlying the alluvium at the north-west end of the site indicated that some 20m of land was reclaimed from the River Esk south-east of Baxtergate in the 12th century. This episode was followed by prolonged occupation activity dating to the 12th-14th centuries, which included the probable construction of a timber building represented by the sill wall on the 15 Baxtergate property. This evidence supports the documentary sources, which suggest that the town of Whitby was extended onto the west side of the River Esk by Whitby Abbey as a borough in the early 12th century. Traces of the medieval tenement layout along the south-east side of Baxtergate - narrow lanes running

down both sides of one or two narrow tenements in order to provide access beyond the buildings on the street front to the backyards - are still visible in the modern townscape. The environmental evidence indicated that the population benefited from a varied diet including fish, and used another readily available resource, peat, as fuel.

Later in the medieval period or early in the post-medieval period (15th-17th centuries), a further 15m of land was reclaimed from the River Esk by dumping waste into the river up to 2m thick, and the raised ground was revetted by a substantial riverside wall. The reclaimed land provided additional building space, as indicated by the sill wall found towards the north-west end of the site. The riverside wall would have provided deep-water mooring for larger boats. The amount of material required to create a new waterfront quickly can hardly have been obtained solely from the waste created on the properties in question. Such landfill was presumably the result of concerted action using material derived from a number of sources in the town.

The reclamation did not take place as a single operation; one reclamation was restricted to what is now 16 Baxtergate (and perhaps tenements to the north-east), and there is evidence that two other reclamations took place, with the dividing line being the boundary between 13 and 14 Baxtergate. The implication is that the reclamations were undertaken by individuals - in contrast with a single reclamation, which might be explained as an initiative by the Abbey as the landowner. Perhaps the burgesses did enjoy a measure of independence from the Abbey, or the reclamations took place after the closure of the Abbey at the Dissolution of the Monasteries in the middle of the 16th century. Although there is some doubt as to how economically successful the borough was, the need to create additional moorings for larger boats and the expansion of the tenements to create more living space point to increasing trading activity and an increasing population. This indicates that this part of the town at least enjoyed a degree of success into the modern period.

10.2.3 Post-medieval (16th to early 19th centuries)

At least two further reclamations took place at 13 Baxtergate, extending this property to some 50m from the street frontage. The evidence suggests that these reclamations also took place on a piecemeal basis. Then yet another phase of reclamation extended the dry land beyond the south-east edge of the site. A late 18th century or early 19th century date for this activity is supported by the Wood 1828 map of Whitby (Fig. 4), which shows the properties extending some 60m from the street. As with the medieval reclamations, the large amounts of material needed to win so much land from the river presumably came from a variety of sources in the town, as indicated by the range of domestic and industrial finds recovered from the contexts excavated in Area 1.

Brick buildings appear to have occupied much of the available space, except for lanes running along the tenement axis between the buildings leading to the occasional courtyard (with a well in at least one case). This townscape is depicted on 18th and 19th century maps of the area (Wooler 1740; Charlton 1778; Wood 1828; Pickernell 1841; Ordnance Survey 1853).

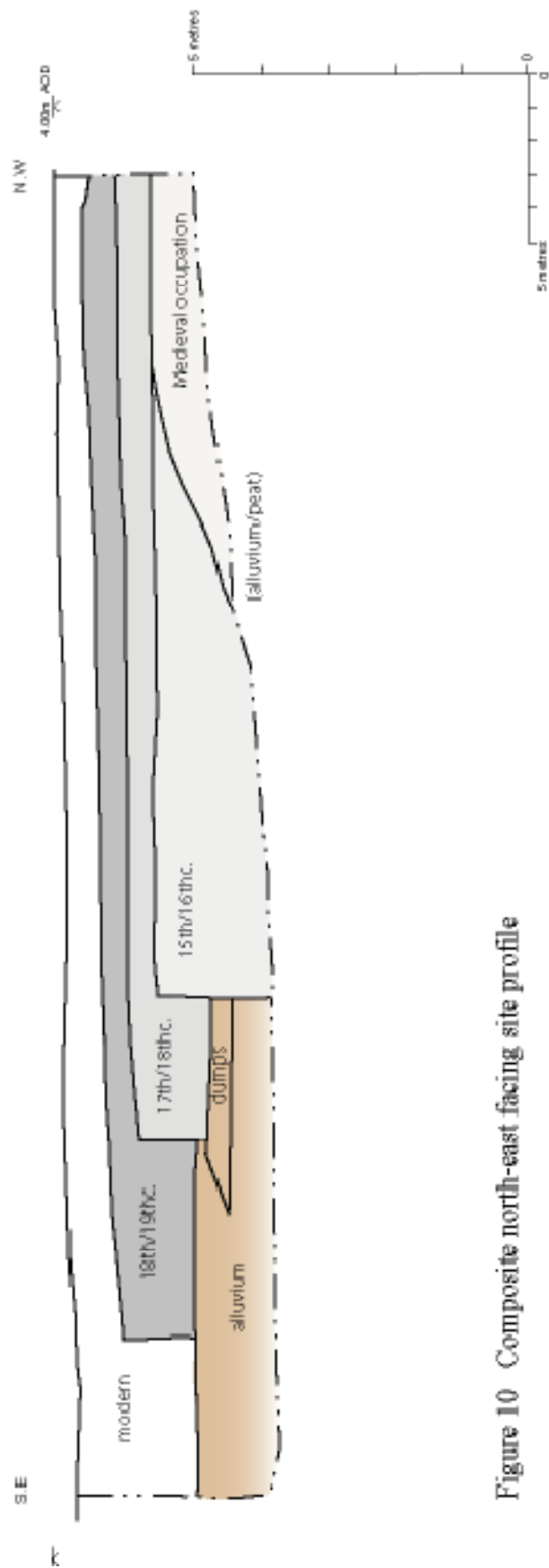


Figure 10 Composite north-east facing site profile

10.2.4 Modern (later 19th to 20th centuries)

Concrete surfaces largely reflect the use of the site as a garage in the later 20th century. The creation of New Quay Road in the 1920s and the Endeavour Wharf in the 1960s took place beyond the site and therefore cannot be identified from this fieldwork.

10.3 Conclusions

The watching brief and excavation at New Quay Road provided good evidence of medieval and post-medieval occupation and land-use between Baxtergate and the River Esk. This is thought to reflect the establishment of a borough with a market by Whitby Abbey in the early 12th century, which flourished as part of the town and port of Whitby. Several massive sandstone walls in the south-east half of the site appear to represent piecemeal reclamation of land from the River Esk during the medieval and post-medieval periods.

Evidence of medieval occupation was identified at the north-west end of the site. The likelihood is that archaeological remains of occupation of 12th century and later date, including the remains of timber buildings, lie in the vicinity of the Baxtergate frontage about 1-2m below the current ground level.

More extensive controlled archaeological excavation and recording between Baxtergate and New Quay Road, particularly to elucidate the medieval activity in the area, is therefore recommended should the opportunity arise.

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APPENDIX 1 Ceramic building material records

(W=Weight, L=Length, B=Breadth and T=Thickness)

CONTEXT	FABRIC	FORM	W	L	B	T	REUSED	COMMENTS	DATE
1100	WH1	Brick	50	0	0	0	0	Slop moulded	17 th +
1100	WH4	Pan	50	0	0	14	0		
1100	WH4	Pan	125	0	0	16	0		
1100	WH4	Pan	300	0	0	13	0		
1100	WH4	Pan	50	0	0	0	0		
1100	WH4	Pan	125	0	0	14	0		
1100	WH4	Pan	25	0	0	0	0		
1100	WH4	Pan	75	0	0	16	0		
1100	WH4	Pan	125	0	0	16	0		
1100	WH4	Pan	225	0	0	15	0		
1100	WH4	Pan	50	0	0	13	0		
1100	WH4	Pan	75	0	0	14	0		
1101	WH1	Brick	225	0	0	0	0	Four small fragments, no edges or thicknesses survive	17 th +
1101	WH1	Brick	200	0	0	59	0	Slop moulded	
1101	WH4	Pan	50	0	0	16	0		
1101	WH4	Pan	125	0	0	15	0		
1101	WH4	Pan	75	0	0	13	0		
1101	WH4	Pan	25	0	0	15	0		
1101	WH4	Pan	25	0	0	16	0		
1101	WH4	Pan	10	0	0	0	0		
1101	WH4	Pan	50	0	0	15	0		
1101	WH5	Pan	125	0	0	15	0	Rectangular nib 61x21mm in size	
1103	WH6	Plain	50	0	0	14	0		14-16 th
1108	WH9	Plain	25	0	0	12	0		14-16 th
1108	WH9	Plain	25	0	0	15	0		
1108	WH6	Plain	50	0	0	11	0		
1108	WH10	Plain	10	0	0	11	0		
1108	WH8	Plain	50	0	0	12	0		
1108	WH9	Plain	5	0	0	11	0		
1108	WH8	Plain	10	0	0	16	0		
1108	WH8	Plain	10	0	0	13	0		
1109	WH5	Pan	75	0	0	16	0		17 th +
1111	WH1	Brick	600	0	0	54	0	Slop moulded	17 th +
1111	WH1	Brick	650	0	0	56	0	Slop moulded. Upper surface uneven. Blown	
1111	WH2	Brick	1250	0	0	59	1	Slop moulded. Slag like concretion all over . Grass marks on base	
1111	WH1	Brick	125	0	0	0	0	No edges survive	
1111	WH1	Brick	250	0	0	0	0	No edges survive	
1111	WH1	Brick	175	0	0	0	0	No edges survive	
1111	WH1	Brick	250	0	0	0	0	No edges survive. Five small fragments	
1111	WH1	Brick	75	0	0	55	0	Slop moulded	
1111	WH4	Pan	125	0	0	15	0	In two fragments	
1111	WH4	Pan	75	0	0	13	0		
1117	WH1	Brick	510	0	121	54	0	Slop moulded	17 th +

1117	WH1	Brick	510	0	115	52	1	Slop moulded	
1117	WH1	Brick	1225	0	121	56	0	Slop moulded. Blown on one side	
1117	WH2	Brick	850	0	121	59	0	Slop moulded	
1117	WH2	Brick	350	0	0	60	1	Slop moulded. Concretion on break	
1117	WH3	Brick	675	0	118	56	0	Slop moulded	
1117	WH6	Pan	550	0	0	15	0	Concretion on top	
1117	WH7	Pan	75	0	0	14	0		
1117	WH4	Pan	200	0	0	15	0		
1117	WH4	Pan	150	0	0	17	0		
1117	WH4	Pan	75	0	0	14	0		
1117	WH4	Pan	50	0	0	13	0		
1117	WH4	Pan	50	0	0	14	0		
1117	WH4	Pan	75	0	0	16	0		
1117	WH4	Pan	125	0	0	15	0		
1117	WH4	Pan	50	0	0	13	0		
1117	WH1	Brick	75	0	0	0	0	Slop moulded	
1117	Wh7	Pan	150	0	0	15	0		
1117	WH3	Brick	400	0	120	52	0	Slop moulded	
1117	WH2	Brick	300	0	0	59	0	Slop moulded	
1117	WH1	Brick	375	0	0	45	0	Slop moulded	
1117	WH1	Brick	450	0	0	51	1	Slop moulded	
1117	WH1	Brick	450	0	118	54	0	Slop moulded. Indented border	
1117	WH1	Brick	350	0	0	54	0	Slop moulded. Rain marks on top	
1117	WH1	Brick	450	0	0	50	0	Slop moulded	
1117	WH1	Brick	150	0	0	0	0	Slop moulded	
1117	WH3	Brick	75	0	0	52	0	Slop moulded	
1117	WH4	Pan	275	0	0	16	1	Concretion on breaks	
1117	WH4	Pan	200	0	0	16	0		
1117	WH5	Pan	50	0	0	17	0		
1117	WH5	Pan	75	0	0	14	0		
1117	WH5	Pan	175	0	0	16	0		
1117	WH4	Pan	75	0	0	14	0		
1174	WH8	Plain?	5	0	0	0	1	Tiny fragment, difficult to interpret	14-16 th ?
1179	WH1	Brick	75	0	0	0	0	No edges survive	
1179	WH5	Pan	250	0	0	16	0		
1179	WH5	Pan	50	0	0	14	0		
1179	WH5	Pan	25	0	0	0	0		
1179	WH3	Brick	75	0	0	0	0	No edges survive	
1179	WH5	Pan	50	0	0	14	0	Sooted top	17 th +
1179	WH12	Plain	75	0	0	14	0	Very uneven upper surface with finger smoothing marks. Half of this fragments retained as a fabric sample.	
1180	WH5	Pan	75	0	0	17	0		17 th +
1181	WH1	Brick	575	0	0	54	0	Slop moulded. Grass marks on base	
1181	WH1	Brick	100	0	0	0	0	Slop moulded	17 th +
1181	WH1	Brick	100	0	0	55	0	Slop moulded	

1181	WH1	Brick	200	0	0	57	0	Slop moulded	
1181	WH1	Brick	450	0	0	53	0	Abraded. No edges survive	
1181	WH2	Brick	1100	0	122	51	1	Slop moulded. Concretion on breaks	
1181	WH4	Pan	100	0	0	16	0		
1181	WH4	Pan	75	0	0	15	0		
1181	WH4	Pan	100	0	0	16	0		
1181	WH4	Pan	50	0	0	16	0		
1181	WH5	Pan	50	0	0	13	0		
1181	WH5	Pan	25	0	0	14	0		
1181	WH4	Pan	100	0	0	15	0		
1181	WH9	Plain	25	0	0	0	0		
1181	WH5	Pan	100	0	0	14	0		
1181	WH5	Pan	75	0	0	15	0		
1181	WH5	Pan	25	0	0	17	0		
1181	WH5	Pan	25	0	0	14	0		
1181	WH5	Pan	50	0	0	14	0		
1181	WH4	Pan	25	0	0	14	0		
1181	WH10	Plain	10	0	0	14	0		
1181	WH8	Plain	10	0	0	13	0		
1181	WH8	Plain	75	0	0	15	0		
1181	Wh7	Pan	75	0	0	14	1	Nib partly broken off	
1182	WH10	Plain	125	0	0	16	1	Finger smoothed upper surface	14-16th
1182	WH11	Plain	75	0	0	15	0		
1183	WH8	Plain	25	0	0	10	0		14-16th
1184	WH1	Brick	50	0	0	0	0	Slop moulded	
1184	WH1	Brick	150	0	0	56	0	Slop moulded	
1184	WH1	Brick	50	0	0	0	0	Slop moulded	16-18th
1184	WH1	Brick	125	0	0	0	0	Slop moulded	
1184	WH9	Plain	20	0	0	12	1		