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Excavations at 119–125 Marygate, Berwick-upon-Tweed

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SUMMARY

Excavations at 119–125 Marygate, Berwick-upon-Tweed have revealed evidence for the development of the site from the thirteenth or fourteenth centuries through to the nineteenth century. The history of development on this small plot mirrors the development of the town itself. The presence of several large corn-drying ovens reflect the town's prosperity up to the fourteenth century, and their subsequent abandonment reflects the decline of the area during the Border conflicts. Following a period of stagnation security and prosperity returned to the town and on the site this is evident in the expansion of buildings from the street frontage toward the rear of the property during the sixteenth and seventeenth centuries. In the first half of the nineteenth century, a septic tank was constructed reflecting improvement in civic hygiene and suggesting perhaps that Berwick may have been ahead of its time. The artefact assemblage from the site is one of the largest recovered from a single investigation within Berwick and the results have greatly added to the corpus of information with regard to the town's past and development.

INTRODUCTION

THE SITE IS CENTRED ON NGR NT 9970 5303, within the core of the medieval town of Berwick-upon-Tweed (fig. 1). The work was carried out inside a building at the north-western end of Marygate within the town walls by Scotch Gate. Street-name evidence suggests that the earliest recorded occupation of Berwick (c. 1200) lay along the line of Marygate, between Marygate and the Tweed to the west and south-west, and along the line of modern Ravensdowne (Hunter 1982, 72). Thirteenth-century documentation suggests that the trading centre was centred on Marygate (Heawood, and Howard-Davis 2004, 121) and it is apparent that the excavations are located within a streetscape already established by the thirteenth century.

On the earliest map of Berwick, *'The true depiction of Her Majesty's town of Berwick'*, dating from 1570 Marygate is clearly identifiable and the map shows the positions of individual buildings aligned with the street frontage with enclosed rear yards, although no features within the back plots are discernible. It is possible that the properties illustrated on this map reflect the original burghage plots of the medieval period. Due to later development no traces of these medieval buildings survive today.

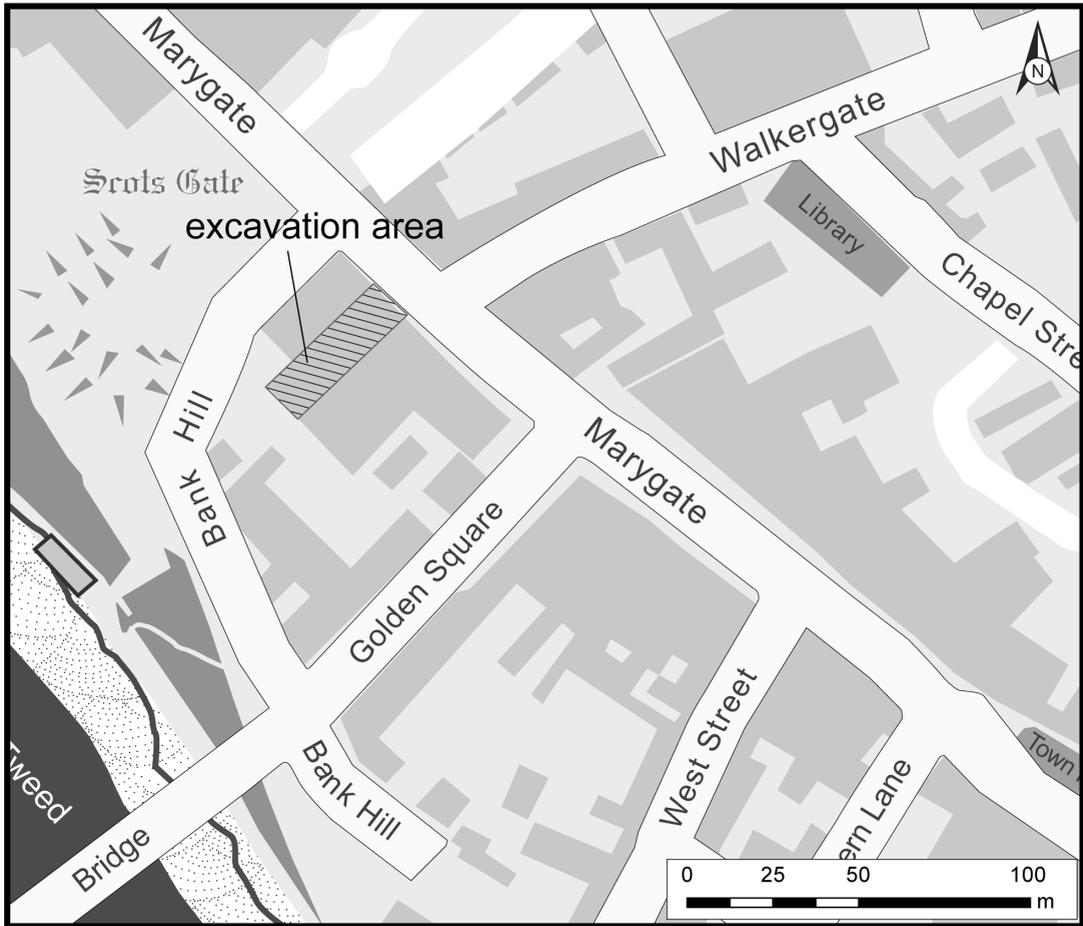
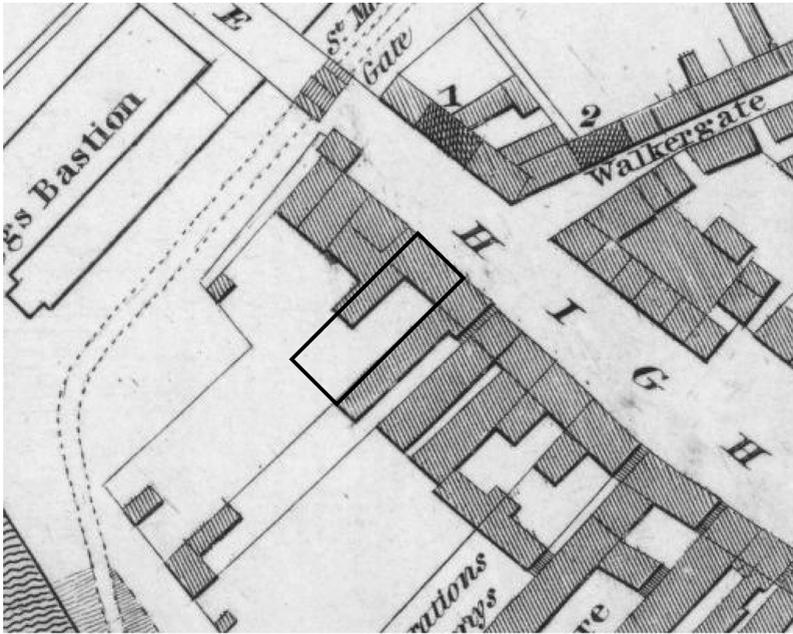


Fig. 1 Location of the excavation. (Based on the Ordnance Survey map © Crown copyright).

Later maps of Berwick-upon-Tweed, i.e. Joan Blaeu's of 1654 and Hermann Moll's of 1745, are rather stylised, showing it simply as a defended settlement with a castle. Roy's Military Survey of Scotland (1747–55) shows a basic road plan of the town from which it is possible to identify Marygate. On John Wood's more detailed map of 1822, Marygate is labelled as 'High Street' and Scotch Gate as 'St Mary Gate'. The plot at 119–125 Marygate is depicted as a single rectangular building fronting the High Street, behind which is a long open garden stretching the full length of the burgage plot (fig. 2a). John Thomson's map of 1832 is much less detailed and provides no information about individual buildings along the street fronts or about the plots behind them.

By 1855, when the 1:528 OS map was published, St Mary Gate had become Scotch Gate, and High Street had been renamed Marygate. Buildings now extended back from the 119–125 Marygate frontage covering much of the plot behind (fig. 2b). The building complex was a boarding school at this time.



0m 50m

 A scale bar with a black and white alternating pattern, indicating a distance of 50 meters.

Fig. 2 a. John Wood's map of 1822 showing the location of the property.
 b. The 1855 1:528 OS map showing the location of the property.

By the late nineteenth century the building had been divided into four properties which variously included houses and shops on the ground floor and apartments above, and they continued in use as such throughout the twentieth century. The archaeological investigation which is the subject of this paper was prompted by the redevelopment of the property for a retail outlet.

THE EXCAVATED EVIDENCE

Introduction

For ease of description the site is divided into four areas, defined by rooms within the standing building (fig. 3). Prior to development the ground floor of the building existed at three different levels. The development required that the higher levels be reduced to the same level as that at the front of the building so some 1.6 m in Areas 1 and 2 had to be removed. As this would clearly have an impact on any surviving archaeological deposits the ground reduction was carried out as an archaeological excavation. As the exposed ground surface of Area 4 was already at the required level for the new development excavation in this area was limited to the footprint of the pile-caps (referred to throughout as PC_{1, 2} etc). Within Area 3 the ground available for excavation was limited by a large basement. The excavation took place during April and June 2007. The site archive, which includes all site records both written and drawn, artefacts, photographic record and all specialist reports, will be deposited with the Berwick Town Museum.

Methodology

The archaeological works were carried out in four phases. The first phase consisted of a watching brief to monitor the removal of the existing floors and the nineteenth- to twentieth-century deposits lying directly below them. The second phase consisted of the removal of the underlying post-medieval deposits; these consisted mainly of unstructured dumps of debris and were removed using a mini digger fitted with a toothless ditching bucket. Every tenth bucket load from the digger was sieved through a 10 mm mesh in order to recover any artefacts from the post-medieval deposits. All other loads were monitored in order to recover further archaeological evidence.

The third phase of the works consisted of the hand excavation of all medieval or earlier deposits and features down to the formation level of the new floors, at 26 m OD. In the footprints of the pile-caps hand excavation proceeded to a depth of 300 mm below the new formation level.

The fourth phase was associated with the underpinning works of all walls to be retained as part of the new development. Due to safety constraints implemented during this phase of the works all recording of any archaeological features and deposits encountered during the underpinning was carried out from 'a distance'.

Results

INTRODUCTION

The underlying natural drift geology — compact boulder clay — was only encountered in Area 4. The land slopes steeply from Marygate south to the river Tweed (Hunter 1982, 73) and

towards the rear of the building the ground had been artificially levelled with man-made deposits. In all, four general phases have been identified on the basis of stratigraphic and artefactual evidence, activity on the site spanned a period of 700 years from the twelfth to the nineteenth centuries. The evidence is presented below, phase by phase.

PHASE 1: THIRTEENTH TO FOURTEENTH CENTURY (fig. 3)

The earliest deposits on the site were middens containing animal bone, fish bone and pottery of thirteenth or fourteenth century date including Northumbrian Buff Sandy ware (fig. 7a). The deposits were deepest in Area 2 where they may represent the dumping of domestic waste to level the sloping ground. In this area the boundaries between the midden layers were quite distinct, suggesting that there had been no cultivation here which would have led to mixing of the soils. In Area 3 the earliest deposit was a more homogenous soil over 0.4 m in depth which also contained Northumbrian Buff Sandy ware as well as charred cereal grain (predominantly oats — *Avena* sp.); this soil may have been cultivated.

Built directly on and cutting these deposits were a number of stone-built features consisting of a flagged surface, ovens and walls. The stratigraphic relationships between these features could not be resolved other than that they were all buried by the Phase 2 midden.

Flagged surface

A surface of flat irregular sandstone slabs covered the northern end of Area 2 (figs. 3 and 4) and extended into Area 3. Although more patchy in Area 3 it seems likely that the whole excavated surface here was once floored in this way. Large sandstone flags were also found in the base of PC3 which may represent an extension of the flagged floor to the east. The southern extent of the flagged floor appears to be defined by Wall 2.

Oven A

Oven A consisted of an incomplete circular wall built from unworked and roughly worked stones 0.5 m high and 0.3 m wide, and bonded with clay (figs. 3 and 4). Within the oven a thin layer of black ashy silt, 0.01 m thick, lay directly over the flagged base and was in turn buried by a scorched orange clay, 0.3 m thick, which contained large angular stones and may represent collapse from the demolition of the oven. A deposit of brown silty clay up to 0.4 m deep sealed some of the stone slabs outside the oven. This was in turn sealed by a layer of scorched pink/red clay which may represent further demolition debris and which in turn was sealed by the later Phase 2 midden. Fragments of Later Reduced Greenware pottery were recovered from these demolition layers suggesting disuse by the mid fourteenth century.

Oven B

Oven B was sub-circular in plan (fig. 3). It differed from Oven A in that it had a concave base comprising a single layer of pink sandstone slabs. The superstructure consisted of a wall of large sandstone cobbles bonded with clay; only one incomplete course remained which had been laid around the upper edge of the oven cut. There were three layers within the oven. A thin layer of compact dark orange clay covered the entire base of the oven and this was

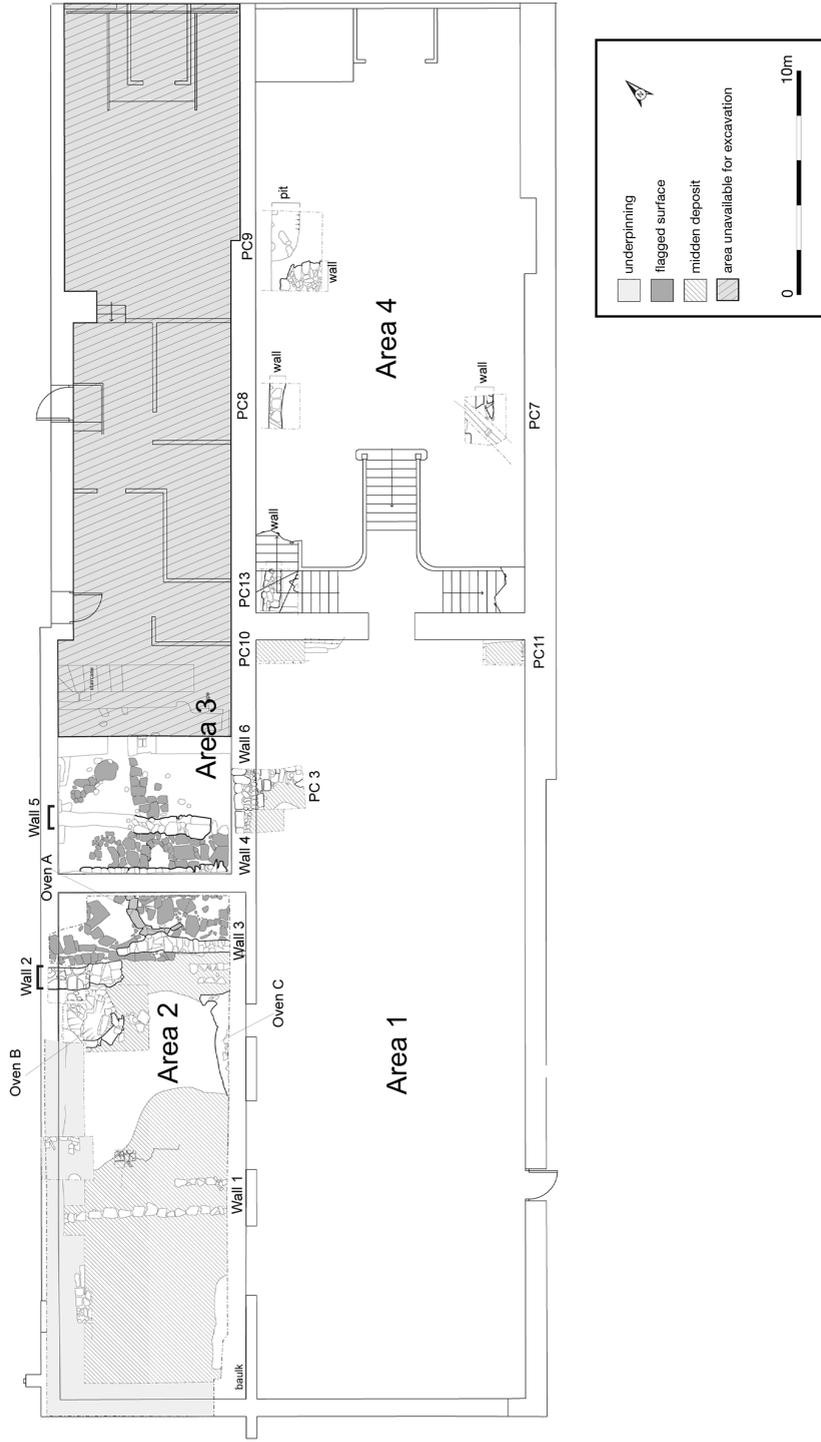


Fig. 3 Phase 1 features.



Fig. 4 Oven A looking south-east. Wall 3 abuts it to the south and the flagged surface is just visible beyond the oven.

overlain by a thin layer of charcoal. The uppermost layer consisted of a pink/orange clay which contained sandstone rubble and may represent the demolition and/or collapse of the oven. All three of these deposits contained Later Reduced Greenware pottery fragments suggesting that the oven had gone out of use by the middle of the fourteenth century. The two lower layers contained charred cereal grains in small but significant quantities; of the identifiable grains, oats appeared to be slightly more dominant than wheat.

Oven C

A spread of rubble associated with a patch of red scorched clay on the eastern edge of the area may mark the location of another oven (fig. 3). As these features lay at formation depth they were not investigated any further.

Walls

In Areas 2 and 3 there were multiple fragments of walling all aligned NW–SE (fig. 3). Wall 1 survived as two parallel lines of un-bonded, unworked stone, one course high and 1 m wide, built directly over the midden deposits. As described above, Wall 2 appears to define the southern extent of the flagged surface. It was a double-faced wall with rubble fill and extended across the entire width of Area 2, although it was more poorly preserved at its south-eastern end. It abutted Oven B.

Wall 3 lay just to the north of Wall 2 and lay over the flagged floor. It survived to a height of 0.4 m and was built of unworked stone bonded with clay. The wall ended just past the apex of the curved wall of Oven A against which it butted but the two were not tied in. The lack of a terminal at its north-western end suggests that this wall may originally have continued further west. A single sherd of Scarborough ware pottery of thirteenth or early fourteenth century date was recovered from between the stones of the wall. Wall 4 was only glimpsed below the base of the standing wall separating Areas 2 and 3, and so its relationship with the flagged floor could not be determined. It was constructed from random coursed stone bonded with clay. Wall 5 survived as two courses of large flat sandstone slabs and unworked angular stones. The line of the wall was extended to the north-west by a foundation trench. Again it was not possible to define the relationship between Wall 5 and the flagged floor but the foundation trench suggests that the wall may have been a dividing wall between two paved areas.

The very fragmentary remains of walls aligned NE–SW were also glimpsed at the southern end of Area 2, again built directly over the midden deposits. In PC3, a substantial wall, Wall 6, was aligned NE–SW and was constructed of clay-bonded rubble and abutted by large flagstones; it was, probably part of the same complex as Walls 2, 3, 4 and 5.

Clay-bonded, rubble-built walls were also recorded in Area 4 in PC7, PC8, PC9 and PC13 (fig. 3). These could feasibly be part of the same structure, with the wall in PC9 forming part of the north-eastern gable. This stretch of wall had been built directly onto the boulder clay, although the walls seen in the other pile caps were built over anthropic deposits, those in PC13 containing thirteenth or fourteenth century pottery. A fragment of twelfth to fourteenth century Scottish White Grittyware (SWG) was recovered from the bonding material of the wall in PC13 and the wall was in turn sealed by clay which contained thirteenth- or fourteenth-century ceramics similar to Northumberland Buff Sandy ware.

As alluded to above, Walls 2, 3, 4, 5 and 6 are probably all part of the same complex, together with the flagged floor and Ovens A and B, the latter structures suggesting a semi-industrial function. Unfortunately, the inter-relationships between the various walls is not clear, although some of them must represent rebuilds over time, such as Walls 3 and 4 which appear to lie over the flagged surface.

Pits

The quadrant of a large pit cut into the boulder clay was uncovered in PC9 (fig. 3). The pit contained charcoal, several large stones, charred cereal grains (again dominated by oats with smaller amounts of barley), and a small quantity of unidentifiable fragments of large mammal bone. Pottery fragments derived from a large portion of a coarse Later Reduced Greenware cistern (fig. 7b) were also recovered. This type of pottery is hard to date but is believed to be a fossil type of the later fourteenth to sixteenth centuries.

There may also have been a pit under the wall in PC8. The basal fill of this pile cap was a deposit of burnt material and reddish clay which contained significant amounts of charred cereal grains (4639 grains) dominated by oats (*Avena* sp. — 92%), with small amounts of barley (*Hordeum vulgare* — 7.5%) and wheat (*Triticum* sp. — 0.5%). A small amount of unidentifiable animal bone was also present. The contents suggest that this deposit derived from a specific source associated with the processing of oats, and may represent the deliberate infilling of a pit.

Abandonment deposits

The demolition layers sealing Ovens A and B suggest that they had gone out of use by the mid fourteenth century. Elsewhere on the site the walls and flagged floors were sealed beneath midden deposits signifying abandonment of these structures. In Area 3 this consisted of an initial thin layer of midden containing sherds from a thirteenth century Early Glazed Ware jug, some large mammal bones and fish bone dominated by the cod family (*Gadidae*); this was overlain by a demolition layer, 0.4 m in depth, which contained lots of large angular stones. Sealing this layer was further midden material, 0.4 m deep, containing thirteenth- or fourteenth-century pottery, bones of sheep/goat, cattle and horse, and charred cereal grain. In Area 1 the flagstone surface in PC3 was sealed by midden deposits which butted up against Wall 6. These deposits contained both Later Reduced Greenware pottery of fourteenth to sixteenth century date and residual Buff Sandy wares of thirteenth and mid to late fourteenth-century date, as well as a significant amount of animal bone including sheep/goat, cow, cat and dog. Similar midden deposits were also observed in PC10 and PC11.

PHASE 2: FOURTEENTH TO SIXTEENTH CENTURY

In Area 2, a deep deposit sealed all of the Phase 1 structures. This deposit contained a large quantity of animal bone including sheep/goat, cow, pig, horse, dog and cat, and a significant quantity of fish remains including haddock, cod, and herring. The pottery assemblage from this deposit was very mixed (fig. 8), and included residual earlier types alongside fifteenth- and sixteenth-century Rhenish and Dutch imports. The mixed nature of the ceramic finds from this deposit suggests that this was a garden soil and this is in keeping with other sites within Berwick of this period. The lack of seventeenth-century types and of clay pipes from the Phase 2 midden suggests that the build-up of this midden had ceased by the late sixteenth century and that the site was not subject to extensive re-use or cultivation prior to the eighteenth century. Much of Area 1 was also covered by other midden deposits, which contained animal bone including sheep/goat, cow and pig, and medieval pottery. There were also two fragments of seventeenth-century ware which may be intrusive.

PHASE 3: SIXTEENTH TO SEVENTEENTH CENTURY (fig. 5)

Phase 3 activity was only observed in Area 1 and relates to the construction of a new building or, more probably, to the extension of the building fronting onto Marygate. The structure excavated consisted of two walls, one of which, Wall 7, ran across the width of the current building while the second wall, Wall 8, was tied into it just over halfway along its length, thus forming a 'T' shape. Both walls were built from partially worked, clay-bonded stone laid in

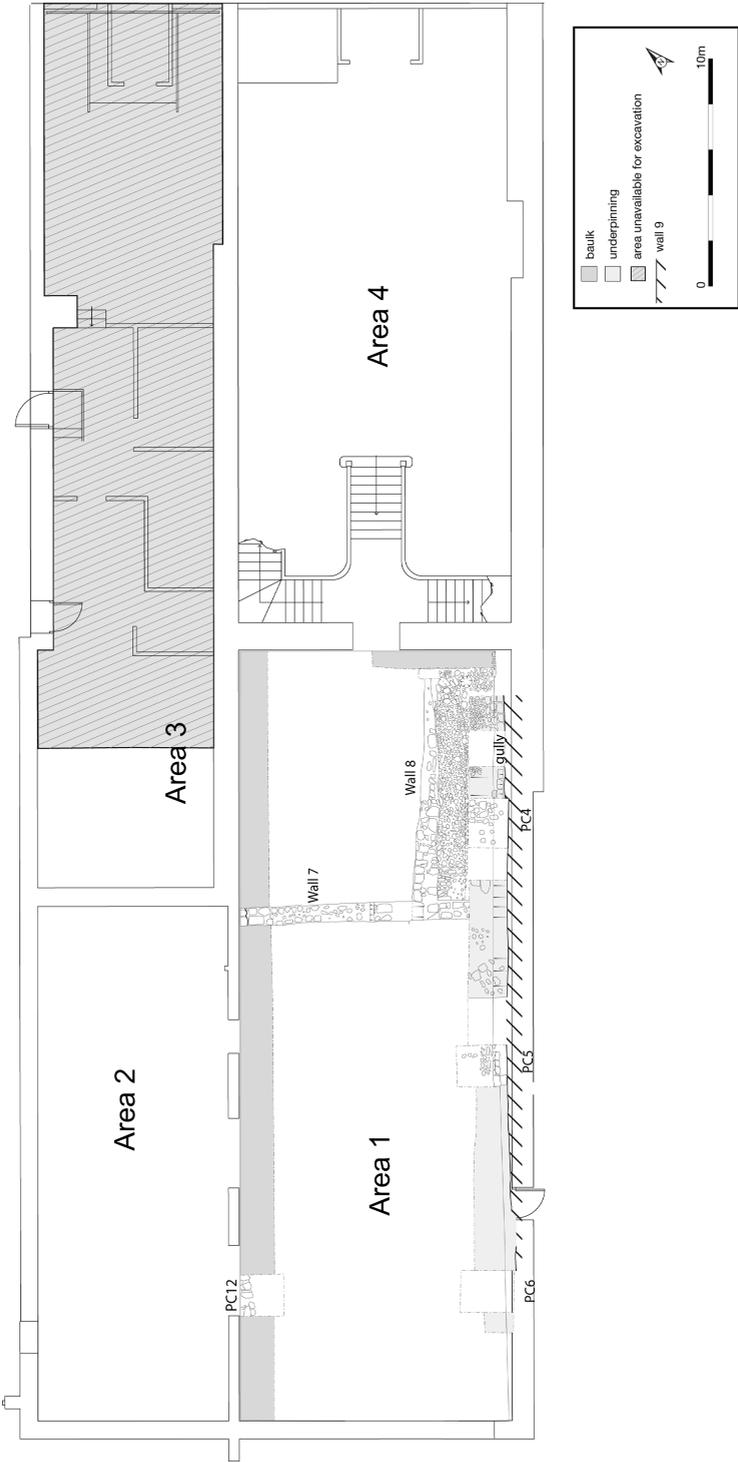


Fig. 5 Phase 3 features.

random courses. A fragment of late sixteenth- to early seventeenth-century Weser ware was found within the bonding material of the NW-SE aligned wall providing a *terminus post quem* date for its construction.

To the east of Wall 8 and bounded by both Walls 7 and 8 was a surface of tightly packed stone cobbles; this surface had been laid directly over a bedding layer which contained pottery of seventeenth-century date. The remnants of an earlier stone surface were observed under the bedding layer during the excavation of the pile caps and underpinning. To the east, the cobbled surface butted against the remains of a shallow gully or open drain built from large flat unworked stones. The gully butted up against the remains of a clay-bonded wall, Wall 9, which extended along the whole length of the standing building. No floor deposits were encountered to the north-west of Wall 8. The features suggest a cobbled yard or a stable with a drain, and an open area or garden bounded by Walls 7 and 8.

Wall 7 and the Phase 2 midden deposit in this area were sealed by a deposit which contained small amounts of unidentifiable mammal bones and fish bone. A few pieces of residual pottery, including the fragments of a Scottish White Gritty Ware vessel, were recovered. The cobble surface was sealed by a deposit containing small amounts of charred macroplant remains and animal bones. Pottery from this context was dominated by seventeenth-century English slip-decorated redwares. Beyond Wall 7, to the south-west, was a similar deposit which contained seventeenth-century ceramics including tin glazed earthen wares. It seems likely that all of these deposits represent dumps of material used to level the ground for expansion and redevelopment of the site toward the south-west.

PHASE 4: NINETEENTH CENTURY (fig. 6)

During this phase the footprint of the building was extended further into the burgage plot in successive stages. Some of these structures are depicted on the 1855 OS map (fig 2b).

Building 1 consisted of a washhouse and septic tank built along the north-western side of the plot. Walls 10 and 11 are the walls of the washhouse, within which there was a tiled floor and a brick floor separated by a single brick wall. Several large sandstone slabs were set into the brick floor; these lay over two brick-built drains which ran into a larger drain that took waste downslope towards the Tweed. Post-medieval red earthenware was recovered from the cut for this drain. Two of the sandstone slabs displayed an arrangement of five drilled holes in bowl-shaped depression, presumably to facilitate surface drainage in the washhouse.

The septic tank lay at the very end of the washhouse. It consisted of a rectangular subterranean structure at least 2 m deep, covered by two arched brick sprung roofs. The walls of the tank were built from large worked stones of various sizes, laid in random mortared courses with deliberate voids left at irregular intervals. The tank had been split into two by the construction of a brick wall which had not been tied into the main walls suggesting that it may be a later addition; this division is depicted on the 1855 OS map (fig. 2b). This wall also contained small voids and a single large void in its centre.

The half of the tank to the south-west of the dividing wall was not excavated but an assemblage of nineteenth-century glass vessels was recovered from the surface of the fill. The fill in the north-eastern half of the tank yielded a range of near complete ceramic vessels suggesting that the assemblage represented a primary rubbish deposit. The limited number of vessels and the range of different vessel types and decoration forms suggest they were disposed of on an *ad hoc* basis as they were broken. This discrete assemblage provides us with

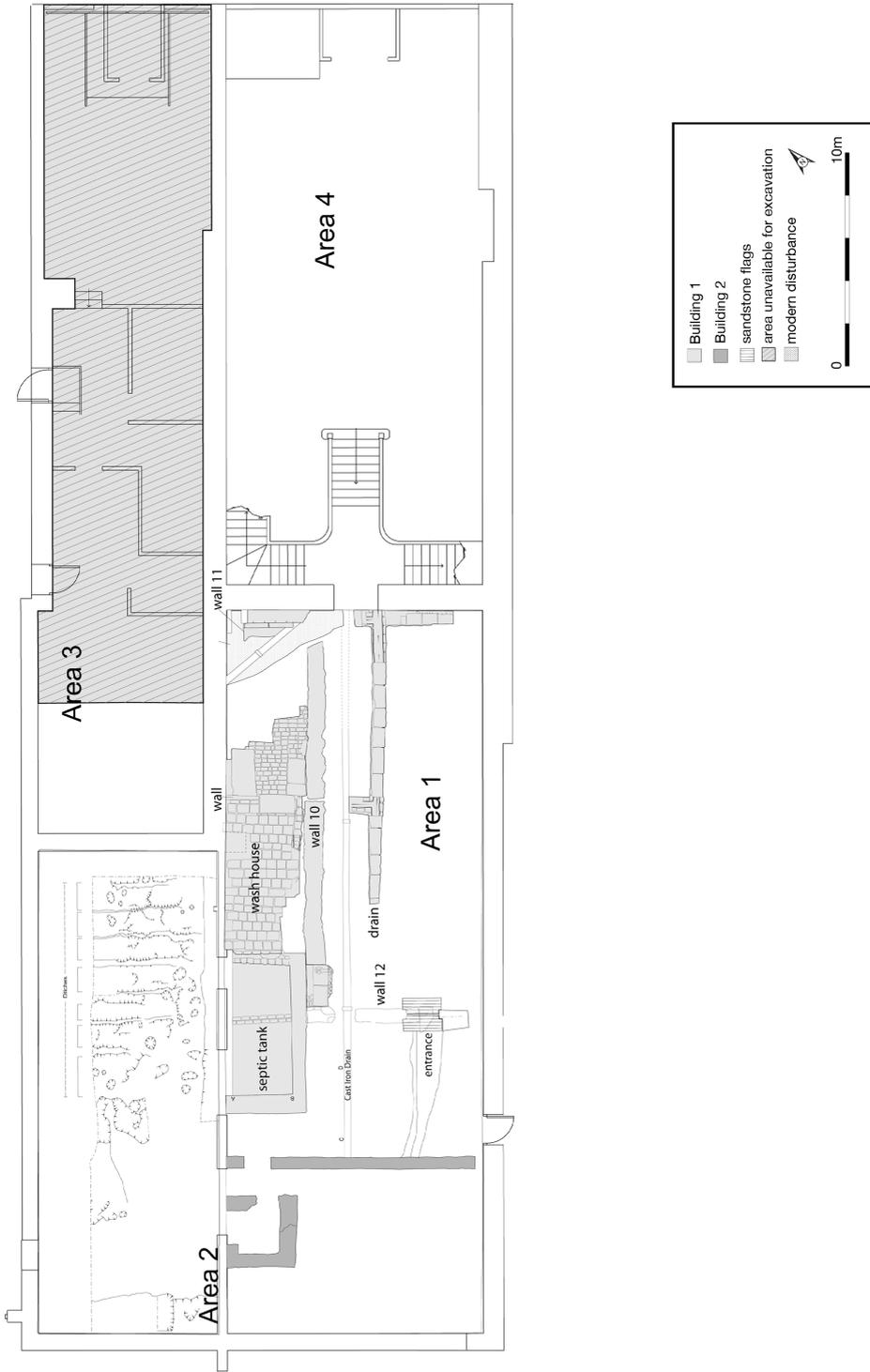


Fig. 6 Phase 4 features.

a 'snapshot' of the ceramics in use in the late eighteenth- to mid nineteenth-century household. The assemblage is probably not a representative sample as it is biased by the breakability of particular ceramic types, hence the relatively high proportion of porcelains within the group. The group may also be biased by spatial arrangements within the property which may have meant that utilitarian and kitchen wares were disposed of elsewhere and account for their absence in this assemblage. The dominance of mainly undecorated wares within the assemblage suggests that the assemblage dates to the first half of the nineteenth century when decorated wares were less popular (Barker 2007, 38).

Wall 12 is also depicted on the 1855 OS map (fig. 2b); the entrance shown on the map is represented by two large sandstone flags on the ground. A midden deposit containing fragments of pottery, glass and clay pipes built up in the open area bounded by Walls 10 and 12, but did extend south-west beyond Wall 12. The ceramic assemblage recovered from this deposit contained an element of residual medieval and early post-medieval pottery but was dominated by eighteenth- and nineteenth-century types. Two pipe bowls of mid to late seventeenth century date were found, but given the dominance of later pottery they are likely to be residual. A very small amount of food debris was also present.

Building 2 was constructed in the late nineteenth century after levelling deposits containing building debris and nineteenth century ceramics were laid down to the south-west of Building 1. This outbuilding was associated with a yard of compact brown gravel which lay to the north of the long wall. These deposits were sealed by rubble upon which the present building had been constructed.

The build up of garden soil in Area 2 had ceased at the end of the sixteenth century (see above) and there had been very little activity in this area throughout the seventeenth and eighteenth centuries. The most recent features in this area were a number of wide, shallow depressions in the surface of the garden soil, all parallel with each other; these most probably represent some sort of horticultural feature. Beyond the limits of these was a scatter of irregularly shaped root bowls, indicating the presence of small trees and/or shrubs. The ceramic assemblage from these features was very mixed, and included pottery of medieval, post-medieval and eighteenth- and nineteenth-century date. Faunal remains included primarily sheep/goat and cow but small numbers of dog, pig and horse were also present. Small amounts of fish bone were also found: primarily haddock with smaller amounts of cod, herring, saith and salmon. A small assemblage of charred cereal grains consisted of equal amounts of bread/club wheat (*Triticum aestivum/compactum* L) and oats.

These features and deposits were sealed by midden deposits containing pottery dated to the seventeenth and nineteenth century. They were rich in faunal remains but lacking in macroplant and fish remains. These deposits also sealed the construction cut of the septic tank. These midden deposits mark the last episode of dumping of domestic waste and manuring of this area during the nineteenth century. They were overlain by the remains of stone-built walls and levelling deposits relating to the standing building.

SUMMARY CONCLUSIONS

The earliest deposits uncovered at 119–125, Marygate date from the thirteenth century. It is possible that earlier unexcavated deposits still survive on the plot but the steeply sloping ground towards the Tweed may have always impeded development of the site.

Phase 1

Significant archaeological remains relating to this period were found across the site. Three periods of activity can be identified, beginning with the construction of the paved surface. Whether this surface represents the floor of a building or a yard is not clear, but it was sealed by a deposit containing thirteenth-century pottery. During this period the ground appears to have been levelled toward the south-west by the dumping of domestic refuse. Industrial activity followed this levelling, with the construction of at least three ovens which may have been used as corn-driers for the processing of oats, the waste from which was probably dumped into pits in Area 4. Pottery found in what is believed to be the collapsed debris of the ovens suggests that this industrial activity ceased in the mid fourteenth century.

The normal form of medieval corn driers is one of a covered flue leading to a central chamber or bowl in which a raised floor would be constructed. The grain to be dried was placed upon this raised floor and the heat from a fire, lit at the entrance to the flue, would be drawn into the inner chamber. Often the floor of the bowl would be lined with stone flags such as those seen at Abercairny, Perthshire, and Capo, Kincardineshire (Gibson 1989, 220–26). Oven B is most akin to a corn-drier, although no flue was found.

The features and deposits found on the site during this phase are very similar to those revealed during excavations elsewhere in the centre of the town. Archaeological investigations at various points along the northern side of Marygate have revealed levelling deposits of fourteenth-century date containing butchery and other household waste (Pre-Construct 2005), and rubbish pits containing domestic waste (104–6 Marygate: Williams 2000). An oven was found at the end of a burgage plot fronting onto Marygate (LUAU 1996), whilst pits with waste from fish processing and dye production testify to the range of semi-industrial activities being carried out within the town in the thirteenth and fourteenth centuries (Heawood and Howard-Davis 2004, 157). The industrial activity at 119–125 Marygate may have ceased as a result of the decrease in population of the town during the Border wars (Hunter 1982, 70).

Phase 2

Following the abandonment of the ovens the south-western end of the plot was used primarily for cultivation. Domestic waste was dumped in Areas 1 and 2 and a garden soil developed.

Phase 3

During this phase the Marygate building expanded out into the burgage plot: the cobbled surface and associated drain probably represent the construction of a structure such as a stable. This expansion perhaps reflects a growing sense of security after the town defences were rebuilt in the sixteenth century and the beginnings of an upturn in the fortunes of Berwick. The southwestern end of the site (beyond Wall 7 which may have defined the boundary of the outbuildings and stable yard) remained undeveloped throughout this phase, and the build-up of garden soil continued throughout the sixteenth century.

Phase 4

There appears to have been little or no development of the plot until the early nineteenth century, although changes may have been made to the building fronting Marygate in the

previous centuries. The south-western end of the site was still undeveloped in 1822 (fig. 2a) and the original plot appears to be undivided. However, by 1855 the land behind the building fronting onto Marygate appears to have been divided in two (fig. 2b). By then the Marygate building had become a boarding school, and a washhouse and septic tank, presumably part of the school's facilities, had been built along the western edge of the property. The construction of the septic tank reflected improved civic hygiene and suggests that Berwick-upon-Tweed may have been somewhat advanced in this respect. Septic tanks were first designed in France by John Louis Mouras in 1860 and first patented in Britain in 1881 (Stanbridge 1976, 42), but there was clearly a septic tank on the property in Marygate by 1855, whilst the presence of pottery mainly from the first half of the nineteenth century suggests that it went out of use soon after this date. The prosperity of the proprietors of the school is perhaps reflected in the porcelain and the grape seeds recovered from the septic tank.

By this period, Area 2 lay in the adjoining property where it remained in use as a garden (fig. 2b). Similar features to the wide, shallow ditch-like features observed in this area (fig. 6) were found during the excavations in Walkergate where they were interpreted as the impressions of a timber floor (Hunter 1982). However, as Area 2 remained in use as a garden it is more likely that they relate to horticultural activity, the depressions perhaps being created by walking between rows of canes supporting fruitbearing bushes such as raspberries.

THE ECOFACT ASSEMBLAGES

The specialist reports have been summarised below. Full reports can be found in the site archive.

The faunal assemblage

MAMMAL REMAINS, *by Jackaline Robertson*

The excavation at 119–125 Marygate produced a large assemblage of animal bones collected by hand and retrieved during the wet-sieving of bulk soil-samples. The species present within the assemblage were sheep/goat, cow, pig, horse, dog, cat, rabbit and rodent, with sheep/goat being dominant. However, a significant proportion of those bones which could only be identified as those of a large mammal include ribs and vertebrae fragments that are in all probability cattle. The number of elements other than sheep/goat and cow are minimal. The sheep/goat, cattle, pig, dog and rodent remains are spread through out the site with no evidence of selective disposal. The rabbit and the rodent remains are probably intrusive.

Analysis of epiphyseal fusion of the sheep/goat remains show that no animal was found to be younger than six months and none was older than three years, a pattern confirmed by tooth eruptions and wear patterns. This indicates that these remains are representative of a meat economy with the sheep/goats being culled once they reached their optimum weight and size — typically around 18 months to two years. The cattle remains also show a lack of neonates and/or calves and shows that they were four years old, if not older, at time of death; this, again, is typical of a meat economy.

The fragments identified as those of cattle were dominated by low value meat bones. This is the opposite from the elements recovered for sheep/goat which tended to be high value cuts. The economic importance of sheep/goat is not surprising: similar results have been reported in other urban sites in the north of England including Newcastle and Carlisle (Stallibrass 1995, 173). In the Romano-British period cattle were traditionally the more economically important species, but by the medieval to late medieval period, sheep were becoming favoured, particularly in the north of England (Stallibrass 1995, 185). This may explain why the bones recovered at Marygate for sheep/goat are typically regarded as higher value cuts of meat than those retrieved for cattle.

Several bones display evidence of butchery indicative of the removal of meat. These marks appear amateurish with no obvious evidence of skill, suggesting domestic as opposed to professional butchery. There are two exceptions to this, a cattle pelvis and a long bone which may have been sawn by an experienced butcher, possibly when the carcass was originally dismembered before redistribution as cuts of meat. There is evidence of several pathologies in the cattle remains which are typically associated with animals used for traction and suggest that these animals were exploited for other purposes prior to being slaughtered for food.

Although a small amount of pig bones was recovered this is not uncommon as small delicate bones are easily destroyed and are favoured by scavengers such as dogs and cats. Tooth eruption and epiphyseal fusion indicates that both of the animals represented died between the ages of 10 and 12 months. This is typical of a medieval or late medieval assemblage: pigs were usually slaughtered as soon as possible as there were no secondary products to exploit. The presence of pig is typical in medieval and post medieval faunal assemblages as it was normal for households to either keep a pig in an enclosure attached to their dwelling or in free range conditions in woodland (Stallibrass 1995, 172). It is clear that this assemblage is derived from domestic waste; the presence of burnt bone which had been burnt at different temperatures for varying lengths of time supports this interpretation.

The horse remains concentrated in the Phase 2 midden consisted mainly of radii and these appear to represent a minimum of four individuals. There is no evidence that entire horse skeletons were disposed of on this site. A more plausible scenario is that these animals were dismembered after death to assist with burial and were eventually re-deposited rather than deliberately included within the domestic refuse. The Phase 2 midden deposit covered a large part of the site and accumulated over several centuries. In such circumstances it would be easy for waste material that was not domestic in nature to be re-deposited along with household refuse. There was no indication that these animals had been butchered for food or used for bone working. There were also no obvious signs of age-related pathologies; nevertheless the wear patterns on the loose teeth indicate that at least one of these animals survived to an advanced age. It was not uncommon for horse carcasses to be used in industries such as glue making and tanning but this particular part of the site does not appear to have been used for dumping industrial waste.

The dog remains were spread through out the excavated area and were representative of at least two animals. Epiphyseal fusion indicates that these animals were more than one year old. There is no evidence of butchery on any of the dog bones. A single cat tibia had a scratch mark which was initially identified as possible evidence of butchery and or skinning; however on further examination it was extremely shallow and could equally have been the result of other taphonomic factors. During the medieval period it was not uncommon for cats and dogs to be skinned and used in the tanning and fur industries. However, given the small volume of cat fragments recovered and the unclear nature of the mark identified on this bone, it is not possible to ascertain whether this particular animal was skinned. These animals in all probability lived in the proximity of the deposits and were disposed of along with the domestic refuse.

There was an absence of wild species at 119–125 Marygate, although this may be due to the status of the site. Where wild species have been recovered in the north they are usually found at high-status sites such as castles and ecclesiastical sites (Stallibrass 1995, 185).

The level of fragmentation, weathering and animal gnawing evident in the faunal assemblage suggests that material, particularly that in the Phase 2 midden, was left exposed for long periods of time. This would have created the opportunity for horse, cat, dog and rodent remains to be incorporated along with domestic food waste. There is no evidence that the animals were slaughtered and distributed from this site. The vertebrate remains recovered from the site illustrate an urban economy that was not dissimilar to the other larger urban centres in the north of England in terms of animal husbandry and the exploitation of available resources.

BIRD REMAINS, *by Jennifer Thoms*

The bird remains were identified as far as possible to element and species using an identification manual (Cohen and Serjeantson 1996). Twelve bird bones were identifiable to element and species.

Of these, the majority (nine) were from galliformes of a similar size to the domestic chicken, or small galliformes similar to the domestic bantam. While it is possible that these bones may represent birds such as pheasant or partridge it seems more probable that they are domestic fowl. The remaining three bones appear to represent goose (two bones) and duck. They may derive from domestic birds. The bones were well preserved and did not appear to have been subjected to burning or carnivore attrition. A few butchery marks were observed. The bird remains are typical of those found on a domestic midden or dump site, comprising mainly domestic fowl and ducks and geese which may have been the domesticated forms.

FISH REMAINS, by Ruby Ceron-Carrasco

The fish remains were identified using a modern fish-bone reference collection and standard guides (Watt *et al.* 1997). Fish skeletal nomenclature follows Wheeler and Jones (1989, 122–3).

Nine fish taxa were identified, eight to species and one to family level. Of these the most common remains belonged to herring (*Clupea harengus*), haddock (*Merlangius merlangus*), cod (*Gadus morhua*) and saithe (*Pollachius virens*). Plaice (*Pleuronectes platessa*), thornback ray (*Raja clavata*), mackerel (*Scomber scombrus*) and salmon (*Salmo salar*) were also present. Whilst small amounts of fish bone were recovered from features in Areas 1, 2 and 3, the largest amount was retrieved from the Phase 2 midden deposit reflecting the use of Area 2 as a long-standing dumping-ground for domestic waste. The assemblage appears to be purely domestic waste with no evidence of processing; this is in contrast to the evidence from the excavations of the former bus station in 1999 where a pit was found to contain almost exclusively the cranial remains of large fish, suggesting that this was waste from processes such as the drying or salting of stock fish (Heawood and Howard-Davis 2004).

The macroplant assemblage

Jackaline Robertson

INTRODUCTION

The macroplant assemblage recovered from the site was extensive and consisted of 7262 cereal caryopses and 176 wild species. Area 1 was poor in terms of the volume and preservation of material recovered, whereas Areas 2, 3 and in particular Area 4 contained significantly larger quantities of macroplant remains.

The cereal remains were dominated by *Avena* sp. (oats) with smaller quantities of *Triticum aestivum/compactum* L (bread/club wheat), *Secale cereale* L (rye) and *Hordeum vulgare* L (hulled barley, naked barley). The only other cultivated species was *Pisum sativum* L (field pea). The only edible wild species present were hazel-nut shells (*Corylus avellana* L). The wild species were dominated by plants such as *Chenopodium* sp. (goosefoot), *Polygonum* sp. (knotweed), *Vicia* sp. (vetch), *Rumex* sp. (dock), *Galium* sp. (cleavers), *Raphanus raphanistrum* L (wild radish), and *Caryophyllaceae* sp. (carnation) typically found as a contaminant in cereal crops or on disturbed waste ground. There is also evidence of exotic foods in the form of *Vitis vinifera* L (grapes), *Prunus domestica* L (plum) and *Vicia faba* L (horse bean) which are not normally cultivated in the north of England due to the colder, wetter climate.

ECONOMIC SPECIES

Of the cereal groups recovered, oats was clearly the economically important species. This was followed by hulled barley, bread wheat, rye and naked barley. Seven field peas were also recovered but unlike cereal crops these do not undergo the same heat treatment processes so this will affect the volume likely to be preserved in the archaeological record. During the medieval and post medieval period in the north of England, both oats and bread wheat were among the more economically important species, with rye becoming more popular as the climate improved and allowed for

higher yields (Huntley 1995, 77). Some 75 rye caryopses were recovered from the Phase 1 oven features. Given the small volume of rye recovered it was not possible to establish whether this particular crop gained in popularity throughout the medieval to post medieval period in Berwick-upon-Tweed.

The oat chaff indicated the presence of both the cultivated and the wild variety. The majority of the oats appear to be of the cultivated variety with the wild species probably growing alongside the main crop as a weed. Bread wheat chaff and barley rachis internodes were also recovered. The small quantity of chaff and wild weed seeds retrieved suggests that threshing and winnowing had already been undertaken in a separate location (Hillman 1981). The barley species identified included six-row hulled barley and naked barley. The records state that during the medieval and late medieval period two-row barley began to be favoured over six-row barley (Huntley 1995, 75) but there was insufficient evidence from the site to determine whether this was the case in Berwick.

The macroplant remains recovered from Areas 1, 2 and 3 were minimal in contrast to Area 4 and appear to represent redeposited material. The large concentration of macroplant remains in Area 4 suggests that these are in situ deposits. The large quantity of oats recovered from these deposits may be residual waste from the medieval drying-kilns located in Area 2 and is less likely to have been refuse from domestic cooking and cleaning. While processing of cereal crops normally occurred on or near to the rural site where they were grown there is evidence that milling typically took place in cities and towns such as Newcastle and Berwick (Huntley 1995, 77). It is possible that the oats in Area 4 were intentionally destroyed; a small percentage of the cereal caryopses from the burnt layer in pile-cap 8 did display external signs of insect damage but this was not significant enough to have resulted in its deliberate disposal. Previous studies in York have established that infestation of stored grain was a common occurrence and would not normally result in deliberate disposal (Osborne 1983). There is also no evidence that this grain was destroyed in a catastrophic accident.

EXOTIC SPECIES

Fourteen grape seeds were recovered from the fill of the septic tank in Area 1. A further 14 grape seeds were found in PC9. The grape seeds displayed evidence of both charring and water logging. There is no evidence that any other feature on this site was waterlogged, although the four samples from which the grapes derived from could not be described as being truly anaerobic. A single plum stone was also recovered in a waterlogged state. Unlike the grape seeds there was no evidence of charring and its external appearance was relatively fresh. The possibility that this is a more modern inclusion can not be disregarded. Fragments of poorly preserved horse bean were identified in two contexts from Area 2; like the grapes, these would have had to have been imported. Exotic species including grapes and plum have previously been found at Newcastle, Richmond and Hartlepool (Huntley 1995, 69–71). The presence of these exotic foodstuffs probably reflects the status of the occupants of 119–125 Marygate. These foodstuffs have previously been recovered only from high status sites in the north of England such as religious and military centres.

WILD SPECIES

The only wild edible species recovered were hazel-nut shell fragments from the burnt layer in PC8. The weed seeds recovered were minimal and were spread throughout the site. The species identified consisted of plants typically described as weeds of cultivated crops and waste ground. *Chenopodium* sp (goosefoot) and *Polygonum* sp (knotweed) have been gathered for food, particularly in times of hardship or famine, but there is no evidence to argue that these plants were deliberately harvested at Marygate (Robinson 1987; Renfrew 1973). The wild radish could also have been deliberately collected although, given the small quantity recovered, it is more plausible that this was an accidental introduction. The wild seeds were either growing on or near to the site or were introduced as a weed associated with the cereal crops. This would explain why such a small volume of weed species were recovered as the cereal crops appear to have been processed elsewhere before being transported to Marygate.

THE TAPHONOMY OF THE PARENT DEPOSITS

The macroplant assemblage from Marygate was large but the bulk of the charred remains was mainly concentrated in Area 4, in particular the burnt layer in PC8. The cereal caryopses recovered from Areas 1, 2 and 3 appeared to represent re-deposited material and as such this renders any interpretation and understanding of the taphonomy of the original deposit difficult. The archaeological features from Areas 1, 2 and 3 included medieval and post-medieval middens, kilns or ovens, ditches, structures, and pits, all of which were exposed to the elements for prolonged periods of time. This would have created the opportunity for charred plant material to be either transferred to other features or inadvertently destroyed and permanently removed from the archaeological record. The charred cereal remains recovered from Area 2 probably originated from the kiln/ovens and is evidence of cleaning waste from the kilns being unintentionally spread throughout the site. In contrast, the charred remains from Area 4, and in particular the large concentrations of oats from the pits in PC8 and PC9, indicate that this area was deliberately used for the disposal of waste from the drying-kilns or ovens located in Area 2 nearby. Previous excavations of kiln structures and ovens in Hoddom, southern Scotland, Hartlepool and Darlington have revealed the presence of predominantly large quantities of oats which were more likely to have been used to feed the population rather than to have been used as animal feed (Huntley 1995, 69–72).

SUMMARY

The macroplant assemblage from Marygate is indicative of grain-drying in Phase 1 and domestic activities such as cooking and cleaning refuse in the later phases. The assemblage indicates that the residents primarily relied on oats, bread wheat and, to a lesser degree, on barley and rye; they also had access to other foodstuffs such as peas and hazelnuts during the medieval period, with plum and grapes becoming available during the eighteenth century.

THE ARTEFACT ASSEMBLAGE

The ceramic assemblage (figs. 7 and 8)

Andrew Sage

Whilst a large part of the assemblage is medieval, much of this is residual and came from deposits that also included small amounts of post-medieval pottery. There appear to be two groups which maybe be considered as having come from primary occupation deposits: the first of thirteenth- and early fourteenth-century date; the second of fourteenth- to fifteenth-century date. However, as is the case on many sites in Berwick, the bulk of the medieval assemblage comes from a series of deep midden and garden soil deposits such as the Phase 2 midden which contained earlier residual material but which was dominated by Later Reduced Greenware types of fourteenth- to sixteenth-century date.

The medieval fabrics in the assemblage are typical of medieval assemblages from Berwick and include types which are common across north Northumberland; early glazed sandy wares, Scottish White Gritty Wares and Northumberland Buff Sandy Wares are present in most contexts but appear to be residual. The assemblage is dominated by Later Reduced Greenware types of the mid fourteenth century or later, of which there are two dominant types in Berwick.

Primary thirteenth-century deposits were only encountered in some of the pile-cap footings and whilst some of the vessels recovered from these deposits provide a tantalising glimpse of the ceramic record of Berwick during this period the evidence is too limited to allow us to develop a useful understanding of the contemporary ceramics in this important port.

Although the Phase 1 ovens provided a small early fourteenth-century assemblage it was very fragmentary and did not provide any evidence for the use of the ovens; some of the material may have been residual. The pottery evidence was insufficient to ascertain if this activity represented the final act of high medieval occupation on the site prior to the crisis of the mid fourteenth century

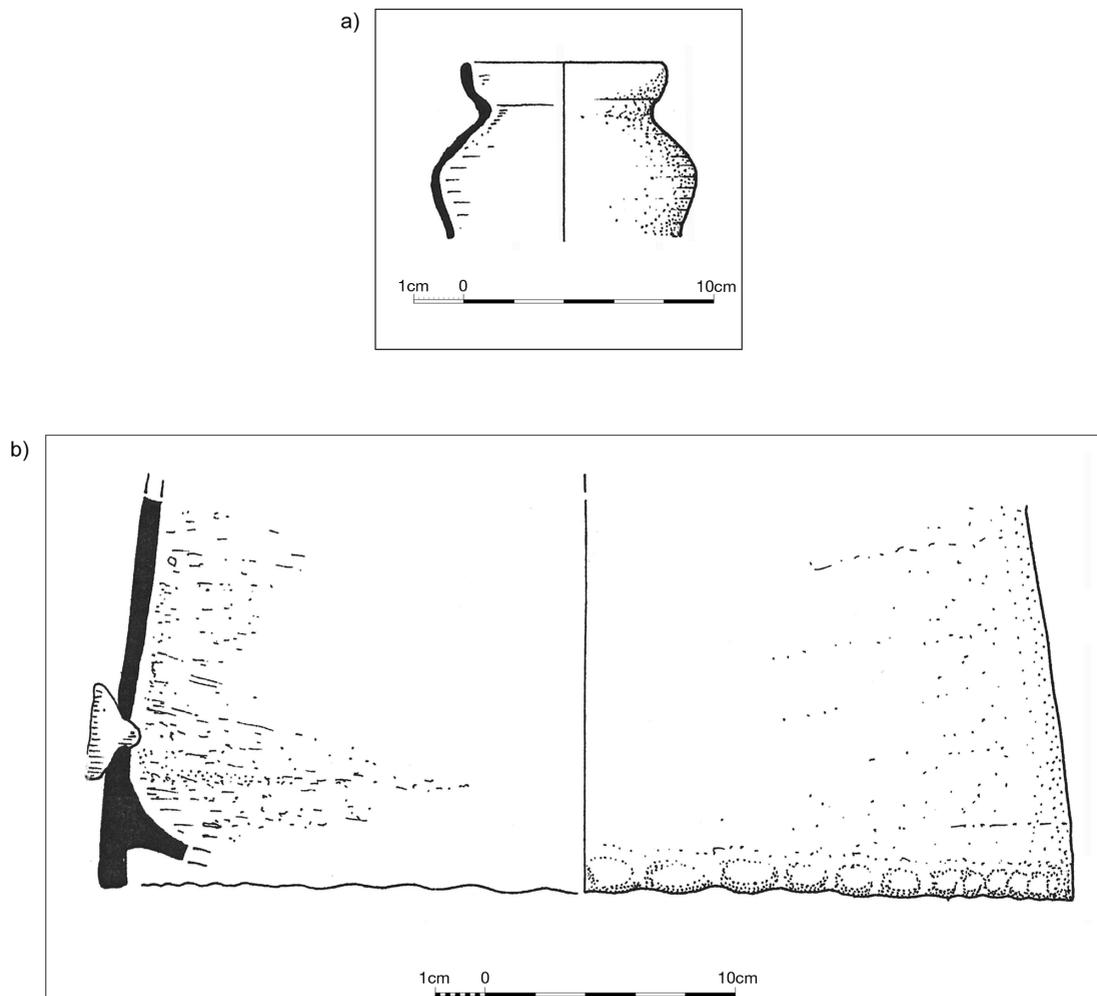


Fig. 7 a. Northumbrian Buff Sandy ware from the Phase 1 midden deposit: small squat jar with simple upright clubbed lid-seated rim; thirteenth to mid or late fourteenth century.
 b. Later Reduced Greenware from pit in pile-cap 9: pie-crust base of cistern with lead bung in side of vessel; fourteenth to sixteenth century.

or whether it represented marginal activities that have been brought within the urban core following initial stages of urban abandonment in the Marygate area. Following the abandonment of the area sometime in the mid fourteenth century the ceramic evidence suggests that there was very limited activity on the site until the seventeenth century.

The small quantity of seventeenth-century material is dominated by English redwares and metropolitan-type slipwares, some of these appear to be locally produced whilst others appear to match those found in Newcastle. The ceramic evidence from the period of re-occupation during the seventeenth and eighteenth centuries is very limited. Only the fill of the septic tank provides significant evidence of the domestic life of a relatively wealthy 'middling' late eighteenth-century household.

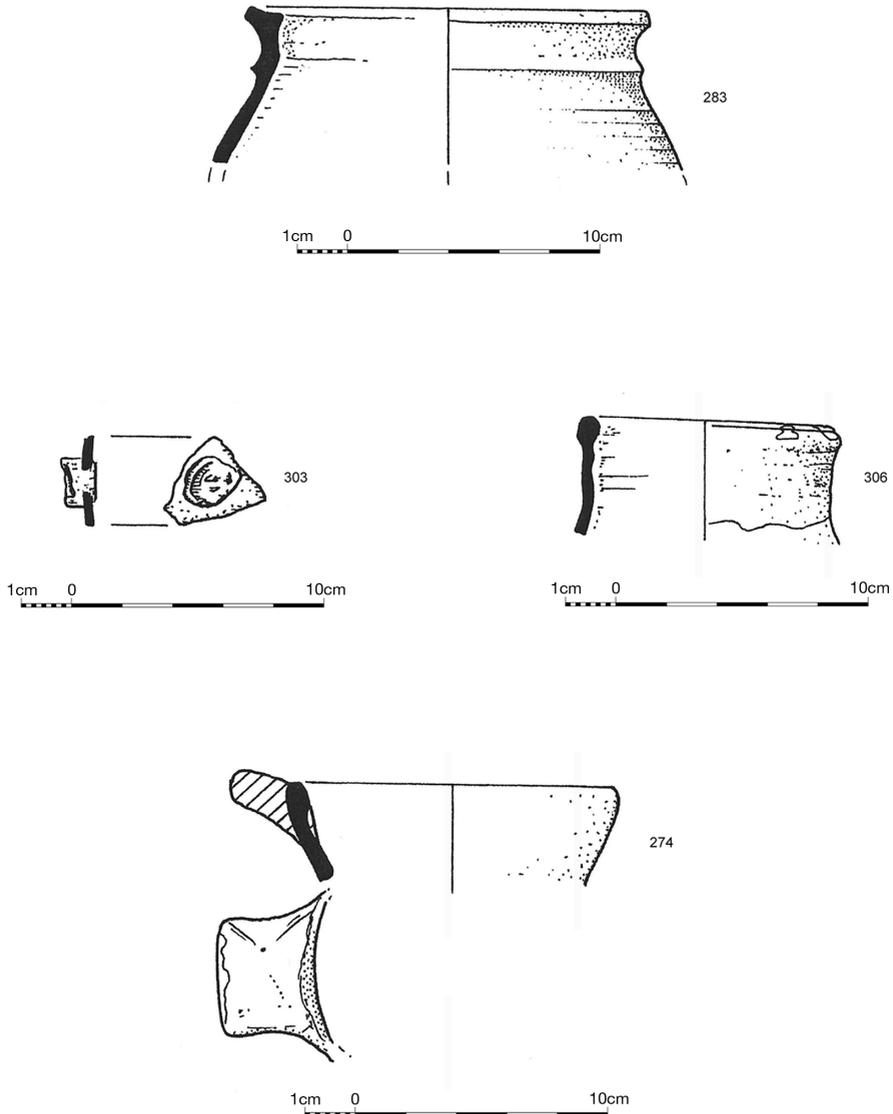


Fig. 8 Pottery from the Phase 2 midden deposit:

- 303, early glazed ware: hole through wall with lead plug repair; twelfth to thirteenth century.
 283, Northumbrian Buff Sandy ware jar: thirteenth to mid fourteenth century.
 306, Reduced Greenware jar with unusual upright thickened or clubbed rim with groove round outer angle. This has some similarity with Tyneside buff or white wares; mid fourteenth to sixteenth century.
 274, Scarborough Ware type 1 bowl with a simple upright clubbed rim and a short straight strap handle similar to a porringer handle; thirteenth to fourteenth century.

*Miscellaneous finds**Jenny Vaughan*

CLAY PIPES

A small assemblage of 55 fragments of clay pipes was recovered from 13 contexts in Areas 1 and 2. The majority (42) of these came from midden deposits in Area 1. The majority of the fragments were of mid to late seventeenth-century date but there was some eighteenth- or nineteenth-century material present.

There were two bowls of Tyneside type 6 (Edwards 1988), whilst another spurred bowl fragment was probably of the same type. This type is of mid to late seventeenth-century date. A large flat base with stem attached was broadly contemporary. A large spurred bowl, Tyneside type 14, was of eighteenth-century date. One stem had the tip of a Tyneside type C maker's mark, while another had a worn type D mark of Thomas Parke of Gateshead. These two items could be dated to approximately 1660–80 and 1675–87, respectively. The majority of the fragments were plain, unmarked pieces of stem. Stem fragments with bores of 4/64 inch or 5/64 inch are of eighteenth-century, or later, date but the majority of stem bores were between 6/64 inch and 8/64 inch, indicating a broad seventeenth- to early eighteenth-century date.

One readable maker's mark was present, that of Thomas Parke of Gateshead. However, the other partial mark and the few bowls present were also of broadly Tyneside type. Clay pipes do not appear to have been made in Berwick until the nineteenth century and it would seem that before this time the market was supplied, at least partly, from Tyneside. How great this market share was would be an interesting research topic if suitably large assemblages were available for study.

GLASS

Some 35 fragments of window glass, mostly small, were recovered from 10 contexts in Areas 1 and 2. The majority (26) were from Area 1 reflecting the continual building development within this area. Most of the fragments were of post-medieval date but two were possibly medieval or early post-medieval (i.e. sixteenth century).

One fragment was of amber coloured glass and was roughly rectangular. Two grozed edges met at an angle of c. 80 degrees. A third edge was also partially grozed, indicating that the quarry was 30 mm wide. Its length and complete form could not be determined as the fourth side was broken. The other fragment was of white glass and irregular shape though one edge was grozed. There was some red staining and corrosion products on the surfaces.

Apart from one very decayed piece the rest of the window glass fragments were of white metal with some surface iridescence. Most were 1 to 1.5 mm thick but a few pieces were thicker than this. As some of the thinner fragments were recovered from contexts which appear, from the clay-pipe evidence, to date from the seventeenth century, it is possible that most of the pieces are of this date rather than later, although such thin glass was used into the nineteenth century. The thicker fragments are probably nineteenth century. The assemblage of window glass is too small and fragmented to have much value for site interpretation or potential for analysis.

The assemblage of vessel glass consisted of six complete bottles and 68 fragments which ranged in size from complete bottle necks and bases to very small body fragments. The complete bottles from the septic tank were nineteenth century; the rest of the assemblage was of late seventeenth to nineteenth-century date.

All the complete vessels were mould-made with applied lips. Three were cylindrical, of wine bottle size. One was made of a dark amber coloured glass, while the other two were green, one lighter than the other. Two of the other complete bottles were in white metal and were oval in section with short necks. There were traces of a whitish deposit inside these two bottles. It is possible they once held medicine of some kind. The last complete bottle, still with its cork in place, was small, made of light green glass with many seeds and bubbles, and had sloping shoulders and an applied lip. It probably contained some household product or medicine.

Most of the fragments were green bottle glass. Many with heavy metallic patina might be from seventeenth- or earlier eighteenth-century bottles. Two base fragments with shallow basal kicks

also indicate this date range, as do the tops with rather angular string rims. One slightly green tinted fragment might be from a nineteenth-century mineral-water bottle. There were five white glass fragments: two rim fragments from a jar with an everted rim and a piece of a small cylindrical vessel are nineteenth-century items. The other two white glass pieces were featureless body fragments.

METALWORK

A small assemblage of 25 metal objects was recovered; 19 iron, four copper alloy, one lead and one (a pin) which appeared to be silver-plated. Most of the objects are not uniquely dateable but the majority of them were from contexts with eighteenth-century or later material.

As is usually the case, nails, or probable nails, were the commonest iron objects. These ranged from large nails with large heads which may have been used as decorative studding to small carpentry nails. A stamped floorboard brad is late nineteenth-, or even twentieth-century in date. The rest cannot be dated. The 'non-nail' iron objects include rods with flat strips attached and might have been supports for rain water goods. Another was a plain rod. The only object clearly identifiable as to function was a large chisel which had been made from a file. A copper-alloy object was possibly a lace tag. None of the other copper alloy items was clearly identifiable as to function although they were in reasonable condition. A pin appeared to be silver-plated and was of modern form. The single lead object was possibly grouting from a wall fixing.

BUILDING MATERIALS

Most of the ceramic building material examined were samples from structures. These appeared to be of late eighteenth- to early nineteenth-century date. These were all hand moulded, and had no observable frogs or keying marks, apart from one sample.

The ceramic building material was no doubt sourced locally. There were several brickworks operating in Tweedmouth and Berwick in the late eighteenth and in the first half of the nineteenth century (Davison 1986, 7). The large tiles used in the Phase 4 washhouse floor are possibly comparable with the 'square bricks' listed amongst the stock of the Ford Estate brickworks in 1769 (Davison 1986, 8). These were considerably more expensive (at 1d each) than the ordinary bricks (12s 6d per 1000), suggesting that they were larger and perhaps more difficult to make.

SLATE

The Phase 4 drain had reused roof slates included in its construction. The sample examined was 212 mm long by 173 mm broad and 5 mm thick. There were traces of flashing and a nail hole 5 mm in diameter at the centre of the top. There was another possible nail-hole to one side. Two fragments of roof slate were also recovered. The grooves on the bedding planes were more pronounced on these fragments than on the example from the Phase 4 drain.

BONE

A bone handle was recovered from Area 2. It was 70 mm long and about 17 mm wide, with rounded ends. One end was drilled and threaded internally for a screwed-in shank/shaft (about 10 mm diameter) set at right angles to the handle. This shank was evidently not intended to be removed once fitted, as it had been fixed with a centrally placed iron pin, the remains of which could be seen on one side of the handle. The thickness tapered from this end, where it was 16 mm, to the other where it was 7 mm. It is impossible to date this object, but it would not be incompatible with the eighteenth- or nineteenth-century date indicated by the few fragments of clay-pipe stem that came from other garden features. The function of the handle is also uncertain. It is unlikely to have been used where any great leverage was to be applied. It might have belonged to something like a riding crop or even a parasol.

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