MOOR & VALE

RICHMOND CASTLE RICHMOND, NORTH YORKSHIRE

COMMUNITY ARCHAEOLOGY EXCAVATION

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CONTENTS

1. Introduction 1
- 1.1. Project Background 1
- 1.2. Project Location 1

2. Archaeological and Historical Background 2
- 2.1. Building phases 2
- 2.2. Previous excavations 3
- 2.3. Previous Surveys – Measured and Geophysical 4
- 2.4. Collection Items From Previous Excavations 5

3. Aims and Objectives 7
- 3.1. Excavation 7
- 3.2. Research Questions and Objectives 7

4. Excavation Results 9
- 4.1. Trench 1 9
- 4.2. Trench 2 12
- 4.3. Trench 3 14
- 4.4. Trench 4 16

5. Medieval and Later Pottery 18
- 5.1. Introduction 18
- 5.2. The pottery 18
- 5.3. Discussion 20

6. Animal Bone and Shell 22
- 6.1. Introduction 22
- 6.2. Methods 22
- 6.3. Results 22
- 6.4. Taphonomic assessment – Vertebrate remains 23
- 6.5. Taphonomic assessment – Mollusc remains 24
- 6.6. Discussion 24

7. Ceramic and Stone Building Materials 26
- 7.1. Introduction 26
- 7.2. Methods 26
- 7.3. Results 27
- 7.4. Summary and Dating 27

8. Clay Tobacco Pipe 28
- 8.1. Introduction 28
- 8.2. Method 28
- 8.3. Results 28
- 8.4. Discussion 28

9. Vessel and Window glass 29
- 9.1. Introduction 29
- 9.2. Method 29
- 9.3. Results 29
- 9.4. Assemblage Summary 29
- 9.5. Assemblage by trench 29
- 9.6. Discussion 30

10. Coins and Tokens 31

11. Miscellaneous Small Finds 32
- 11.1. Introduction 32
- 11.2. Method 32
- 11.3. Results 32
- 11.4. Assemblage summary 32
- 11.5. Assemblage by trench 33
- 11.6. Discussion 34

12. Botanical Macrofossils 35
- 12.1. Introduction 35

12.2. Methods 35
12.3. Results 36
12.4. Discussion 36

13. Radiocarbon Dating 37

14. Discussion 38

14.1. Trench 1 38
14.2. Trench 2 38
14.3. Trench 3 39
14.4. Trench 4 39
14.5. Material Culture 40
14.6. Future Research 41

15. Bibliography 42

16. Appendices 45

Appendix 1 — Context Registers 46
Appendix 2 — Excavation Methodology 49
Appendix 3 — Medieval and Later Pottery Data Tables 50
Appendix 4 — Faunal Remains Assessment Data Tables 81
Appendix 5 — Ceramic and Stone Building Material Data 88
Appendix 6 — Clay Tobacco Pipe Assessment Data Table 90
Appendix 7 — Vessel and Window Glass Assessment Data 91
Appendix 8 — Miscellaneous Small Finds Data Table 96

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The Richmond Castle Community Excavation Project only came about through the continuous dedication and hard work of the *Celebrate Richmond 950* Project Steering Group. At many times through the planning stages, it appeared that the project would not happen in any form, or that it would be a relatively small piece of archaeological 'keyhole surgery'. The diligence of the *Celebrate Richmond 950* team, and in particular the indefatigable Marcia McLuckie along with Phil Upton and Carol Watson, meant that our full original funding goal was reached, and we were able to stage the community project that we had envisioned at the outset. That funding came from the Richmond and District Civic Society, the Castle Studies Trust, Richmondshire District Council and a number of local private individuals and businesses, without any one of whom this project would have been considerably the poorer. A heartfelt thanks goes out to all who gave so generously. Key individuals who have represented or helped smooth the path with individual funders include: Peter Cardwell (Richmond and District Civic Society), Jeremy Cunnington (Castle Studies Trust), Colin Grant (Richmond and District Civic Society, among other hats), John McDonald (Richmond and District Civic Society) and Dennis McLuckie. A separate vote of thanks must also go to Baroness Harris, the Patron of *Celebrate Richmond 950*, for her unceasing support to all aspects of the project.

Richmond Castle is a scheduled monument in the guardianship of English Heritage, and it is only with their kind permission and forbearance of us digging holes across their pristine grass sward that the project was able to reach the heights of success it did. A considerable vote of thanks is given to the following, who provided, variously, permissions, support, logistics, materials, expertise and regular use of cold-water taps—essential given the blazing summer weather that shone on the excavations: Vicky Barton (English Heritage), Kevin Booth (English Heritage), Warrant Officer Jez Chapman, Dr Mark Douglas (English Heritage), Dr Keith Emerick (Historic England), Susan Harrison (English Heritage), Ralph Hewitt (English Heritage), His Grace Charles Gordon-Lennox, the Duke of Richmond, Matthew Lester (English Heritage), Peter Rowe (North Yorkshire County Council) and Sally Wilson (English Heritage).

The excavations were lucky enough to be featured on BBC's Digging for Britain, boasting a prominent spot in the episode on discoveries in the North aired in early 2022. It was a real treat for many of the volunteers and staff, and the programme really showed off Richmond Castle in its best light to a national audience. A huge thank you must go to the Rare TV team, notably Terry Black and Louise Ord, and of course to the gracious and engaged Professor Alice Roberts. And to any doubters who suspected TV trickery, the silver penny really was found live and brought over to us on camera while we were filming the scene at the table!

The job of a Site Director often entails more chatting, firefighting problems, sourcing replacement buckets and buying biscuits than any actual hands-on digging. In order to maintain a view of the 'big picture' of developments and discoveries, any Site Director relies almost entirely on the expertise, talent, initiative and good will of the Trench Supervisors at the 'coal face'. The team assembled for the Richmond Castle project were tireless, skilled, hugely engaged in training the community volunteers involved and were the undoubted heroes of the project. They were: Nathan Berry, Mandy Burns, Dr Victoria Lucas, Dr Sophie Moore, Emma Samuel, Chris Scott and Robin Taylor-Wilson (and not forgetting the unofficial Trench 3 supervision team of Lucy Crosbie and Pan Thoresby and our volunteer Finds Coordinator Paula Rogers).

Richmond Castle is a prominent and justifiably famous historic monument, and inevitably the project attracted interest and support from varied experts locally and from further afield. Many of their contributions helped our work more than they know, and to them we give heartfelt thanks: Phillip Bastow, Marina Chorro-Giner, Dr Chris Cumberpatch, Lorne Elliott, Dr Elizabeth Foulds, Dr David Griffiths, Jane Hatcher, Dr Edward Impey, Erik Matthews, Dr Charlotte O'Brien, Dr Hannah Russ and Dr Gillian Scott.

Finally, and far, far from least, without the support of the hundreds of community volunteers who gave their time and enthusiasm this project would have been just a small gaggle of archaeologists staring at bits of a Castle. Every success of the project is theirs, and we hope that the Castle excavations have gone some way to tying this spectacular monument more closely to its community and fostering a new generation of archaeologists to continue the research started here.

SUMMARY

The Richmond Castle Community Excavation Project was a partnership project undertaken jointly between Solstice Heritage, the *Celebrate Richmond 950* Project Steering Group and English Heritage. The project focused on illuminating specific unstudied, or poorly understood, aspects of the historical development of Richmond Castle, Richmond, North Yorkshire. The fieldwork element of the project took place in July and August 2021 and included professionally led excavation of four trenches by local community volunteers.

Trench 1 was in the north-east of the inner bailey, adjacent to the curtain wall to the immediate north of Robin Hood Tower. It focused on a large stone 'buttress' projecting from, though not tied to, the curtain wall and the relationship of this ambiguous feature to an adjacent gap in the curtain wall, long postulated as an additional early gateway. The excavated deposits and examination of the standing remains of the curtain wall suggested that this section contained an early narrow sally port, decommissioned and infilled during one of the medieval periods of the Castle's refurbishment. The current gap in the curtain wall appears to have been the result of a later collapse. The reconfiguration of the former sally port allowed for the creation of a small square building tight up to the curtain wall, though unfortunately the later 'buttress' prevented detailed investigation of all but the foundation levels. Documentary evidence for a small building in this location raises the possibility that it could have even been a stair tower set against the curtain wall.

The confusion over interpretation of this section of wall was shown to be the result of a considerable programme of alterations by the Ministry of Works in the mid-20th century which went beyond consolidation to actual creation and artifice. The foundations of the later medieval building were exposed and, with the addition of a concrete raft, were used as the base for the 'buttress' which was left untied to the curtain wall. The surviving section of medieval walling which included the return leading to the former sally port was built over to create a low wall crossing the gap in the curtain wall. The gap itself was consolidated, with some of what were presumably ragged edges 'finished' to appear original.

Trench 2 was targeted on a confluence of linear anomalies identified from GPR survey in the hope that they could be characterised as potential building ranges extending north from the main domestic part of the Castle around Scolland's Hall. The principal feature investigated was a seemingly long-lived floor or use deposit with occasional areas of packed stone, suggesting rough flooring or stabilisation of the earth floor surface. Finds from this context included a considerable volume of animal bone, some with butchery marks, as well as a silver penny of William I dating to the earliest years after the Castle's construction. Given this, the deposit has been interpreted as the remains of a floor of an abattoir or butchery associated with a semi-permanent range of timber buildings or service wing. The medieval deposits were sealed by a clay-heavy layer of imported material interpreted as forming the edge of the late Victorian to early 20th-century training/parade ground from the period when the Castle was in use by the army.

Trench 3 targeted a large oval feature identified through the GPR survey. This was relatively anomalous, being set away from the curtain walls and appeared to represent the spread stone rubble from an isolated building, potentially a chapel known to have existed in this part of the castle. Instead, excavation revealed a well-made stone floor or area of paving. The part of the feature visible within the trench had a varied form in terms of construction, though the overall plan of the feature appeared to be oval or rectilinear with rounded ends, reflecting the geophysics anomaly. Interpretation of this feature is tentative at best, and the current 'best fit' is considered to be some kind of defined stocking area or yard surface with subdivisions and potentially an open-sided roof, potentially analogous to later communal storage structures such as tithe barns.

Trench 4 was opened late in the excavation as volunteers came available from their work in other trenches, and therefore fewer features could be subjected to detailed investigation. Nevertheless a few key deposits were investigated and recorded. The first was a shallow hearth pit with an organic-rich fill containing animal bone. Samples from the fill of the pit returned a radiocarbon date of cal AD 1160–1220 (1^{σ} 68.2% probability), broadly contemporary with the late 12th-century strengthening of the Castle. In addition, a discontinuous mortar floor surface was exposed across the centre part of the trench. Although fractured, the flooring preserved the original outlines of some parts of the stub walls, illustrating again that the above-ground remains consolidated by the Ministry of Works cannot be assumed to be an accurate reflection of the sub-surface medieval layout.

Overall, the project was a resounding success in meeting its aims, the credit for which must go to all those who devoted so much time, effort, expertise, resources and enthusiasm.

Figure 1. Location of Richmond Castle

1. INTRODUCTION

1.1. Project Background

The Richmond Castle Community Excavation Project was a partnership project undertaken jointly between Solstice Heritage, the *Celebrate Richmond 950* Project Steering Group and English Heritage. Inclusion of archaeological community investigations focused on Richmond Castle were initially considered as part of the *Celebrate Richmond 950* project by the steering group. At this point, initial advice on the potential and scope of such an element was incorporated into a bid to the National Lottery Heritage Fund (NLHF). Given the curtailing of funding sources as a response to the COVID-19 pandemic, the steering group began to identify potential alternative funding sources. Ultimately, the archaeological community excavation, including post-excavation, has been funded jointly by the Richmond and District Civic Society, the Castle Studies Trust, Richmondshire District Council and a number of local private individuals and businesses. As a scheduled monument, the excavation work was undertaken to an agreed Project Design (Brightman *et al*. 2021) in line with the requirements of Scheduled Monument Consent S00241019.

1.2. Project Location

The project focused on illuminating specific unstudied, or poorly understood, aspects of the historical development of Richmond Castle, Richmond, North Yorkshire (centred at NGR NZ 17132 00721). The fieldwork element of the work took place over three weeks from the 19th July to the 6th August 2021 and included professionally led excavation of four trenches by local community volunteers. The locations of these trenches are shown on the figure below and relate to the specific research questions identified during the planning stage of the project, as is set out in Section 3.

2. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Dr William Wyeth (English Heritage)

2.1. Building phases

No single feature of Richmond Castle is tightly connected to historical evidence for dating, nor has any scientific dating (radiocarbon, dendrochronology) been undertaken on any part of the castle fabric. All phasing presented here relies on architectural, art historical and phase-relative dating. The castle has seen continuous minor repairs and alterations since the 11th century. What are presented here are major phases of construction or alteration only.

2.1.1. Phase I: Late 11th century

Construction at the castle began around the time Alan *Rufus* was awarded estates in Yorkshire following the death of Edwin, Earl of Mercia in 1071. It is likely, indeed, that construction at the castle post-dates the 1075 Revolt of the Earls, for many of the castle household officers' lands were located in territories (chiefly in the east of England) which Alan was granted after that date. Alan died in 1093 and was replaced as lord of Richmond by his brother, also called Alan (differenced by his black hair, and hence his byname *Niger*). This second Alan died in 1097 and was replaced by another brother, Stephen (Étienne), who died in 1136. These dates are important because there is no diagnostically decisive evidence for dating the earliest phases of Richmond Castle. There are two strands to its dating; the first relies on a group of somewhat diagnostic features.

- The first feature is the group of triangular-headed passages of the mural garderobes in the eastern curtain wall, features common in late Saxon church architecture (St Peter's, Barton-Upon-Humber (Lincs); Earls Barton (Northants); St John, Barnack (Cambs)) and apparent in castellar architecture in late 11th century stone castles like Rougemont, Exeter (*c.* 1068).
- The second general 11th-century feature is the presence of herringbone work masonry in patches of the internal face of the curtain wall in the south-east corner of the enclosure. This is found at sites with Late Saxon and early Norman occupation, for example Pevensey Castle (Sussex). It should be noted that herringbone is not unique to this period of time but is most closely associated with it.
- The third feature is a group of column capitals at two parts of the castle: the grand entrance into the basement of the keep from the castle enclosure; and the main first-floor entrance to Scolland's Hall. Comparison has been made with these features and late 11th-century capitals at Westminster Hall.
- The fourth feature is the tower chapel at the ground floor of the Robin Hood Tower. The tower is co-eval with the curtain wall, and there is no evidence the chapel is a later insertion. The arrangement of niches off the central window of the chapel has parallels with an 11th-century exemplar at Hastings Castle (Sussex).

The second strand to its dating is more straightforward; it relies on the relative phasing of the curtain wall with the great tower or keep. This last is dated somewhat generically to the 12th century but is secondary to the curtain wall. These combine to offer an 11th-century date but do not allow ascription to a specific individual. As with the Robin Hood Tower, the Fallen Tower, Gold Hole tower and the unnamed tower at the south-west corner of the enclosure are all co-eval with the curtain wall. Scolland's Hall and its associated solar block are also from this period. The original castle enclosure had three entrances: the northern (principal) entrance; a second high-status entrance by the Robin Hood Tower (its status inferred from proximity of the accommodation area of the castle and the tower chapel); and a third lesser entrance in the south-west enclosure wall near the corner tower. This last is positioned away from the main concentration of domestic life in the castle but is ideally suited for visitors crossing the bridge over the Swale to the south-west of the castle. Domesday (1086) mention that the Lord of Richmond held a castlery of 199 manors; in the past this has been taken to directly imply that there was a castle at Richmond supported by these manors. While this was probably the intent, it cannot be taken as proof alone as the term castellatu is ambiguous in meaning.

2.1.2. Phase II: 12th century

The second major phase of building saw the construction of the great tower or donjon above the original entrance to the castle enclosure. This saw the entrance to the enclosure move to its present position east of the keep. This arrangement of tower and plain entrance to enclosure is characteristic of 12th-century castle architecture; St. Donat's (Glamorgan), Kenilworth (Warwickshire) and Peveril (Derbyshire) all feature a similar arrangement. Richmond's donjon is unusual in its lack of any rooms for sleeping, garderobes or cooking. The dating of the keep relies on analogy with the large number of co-eval keeps in England and the somewhat more general diagnosticity of the column capitals at points within the castle, analogous with numerous other capitals. They are cushion capitals with tapering lower corners, typically 12th-century in date, and are found across secular and ecclesiastical architecture from this period. Goodall is probably correct in ascribing the construction of the keep to the tenure of Conan IV (*c.* 1135–1171) as lord of Richmond, and specifically to *c.* 1160, when Conan married Margaret, Princess of Scotland (d. 1201). During the castle's guardianship by Henry II following Conan's death in 1170, Pipe Roll records mention repairs 'on the residences at Richmond' and 'the king's residence'; in both cases the Latin (*domorum*) is ambiguous, but

probably refers to the buildings around Scolland's Hall rather than the keep.

In concert with the construction of the keep, the barbican walls were probably rebuilt in stone to replace a timber precursor. Similarly, the first stone wall surrounding the appended Cockpit was probably also built in the 12th century. Re-ordering of the kitchen block and the provision of additional or supplemental services west of Scolland's Hall also may have initiated a rebuilding or replacement with stone of the south curtain wall west of the great hall. In this period a mint may have been in operation at the castle in the chaotic reign of King Stephen; any direct proof for the mint is missing but is evidenced by a lead trial piece recovered from below the walls of the castle.

2.1.3. Phase III: 13th–14th century

A major re-ordering of domestic arrangements around Scolland's Hall took place in the 13th–14th centuries; a new chamber was built north of the 11th-century solar block. North of this, and communicating with it through a squint, was a first-floor chapel. Beyond this, a third chamber was added to this range at the same time, though the function of this last is not known. It may relate to accommodation for chaplains.

The expansion of private lordly space was echoed too in the extra apartments provided in this period with the upward extension of the Robin Hood, Gold Hole and the south-west corner towers (similar works may have been undertaken at the Fallen Tower). The Robin Hood extension saw two stories of private apartments added with self-contained garderobe chamber carried out on stone corbels, and a fireplace within the chamber. The Gold Hole tower evidences a Caernarvon-arched doorway opening to the third floor of its west face, while the south-west tower features a cruciform arrowslit of general 13th- to 14th-century appearance.

In the keep, the basement was refitted to include rib vaulting and a well head. A staircase was probably also inserted in this period from the basement to the first floor. This occasioned a change in the arrangement of the first floor of the keep, with a new passage being pushed through the south-west corner of the main three-windowed chamber to allow access to the west mural spaces. The west end of Scolland's Hall saw the simple passage to the kitchen block at first floor replaced with a conventional three-doorway arrangement for the pantry, kitchen and buttery respectively. Changes at the castle in this phase may be connected to the Dukes of Brittany in the later 13th century, the decade of tenure of the castle by Edward I, another stretch of ownership by the Dukes of Brittany in the 1340s and/or perhaps to Richmond Castle's holding by John of Gaunt (*c.* 1341–1372).

2.1.4. Phase IV: 15th–18th centuries

This broad span of time evidences few major changes to the castle. Questions remain, however, over the date to be ascribed to the massive masonry remains by the postern adjacent to the Robin Hood Tower. Relative phasing only confirms these to be secondary to the enclosure wall (this dated to the 11th century). The footings of a thin-walled building, sharing a similar orientation to this last with the east curtain wall, are also undated. There is possible internal phasing within this broad range too. The run of the massive wall footings mentioned above are of a different phase from the shorter stretch of thinner wall footings running away from the east curtain wall here. Elsewhere, it is apparent that the eastern and southern segments of the enclosing wall of the Cockpit Garden are post-12th-century in date and perhaps connected to this later medieval/early modern phase of repair or maintenance.

2.1.5. Phase V: 19th century

Around 1854, two major new additions to the castle were constructed: the cell block, located just east of the present chief entrance to the castle enclosure and surviving today; and the barracks block, which was built to house married soldiers stationed at Richmond. This last was demolished in 1931, but the layout of its ground-floor walls may be seen on dry days in the form of parch marks running parallel to the western segment of the enclosure wall.

2.2. Previous excavations

This summary of previous excavations draws nearly entirely from the 2001 *Conservation Management Plan* and is supplemented by more recent work.

2.2.1. Pre-19th Century.

- Barbican: Works clearing moat and drawbridge section (1732, unrecorded).

2.2.2. 19th-Century Works.

- Hall complex: excavations adjacent to the west face of Gold Hole tower and within the base (pre-1821, no records surviving)
- Scolland's Hall complex or South-West Tower: excavation of chamber in ground (?pre-1859).
- Keep: mid-19th-century works undertake in the north-west corner of the Keep allowing one or two drainage pipe(s) (not clear which) to run through the Keep, apparently aligned north to south. Works uncovered a water-filled void of dubious archaeological importance, however.

2.2.3. 20th-Century Works

- Barbican: excavation of drawbridge piers (1931, no records surviving).
- Barbican: excavation of former electricity substation by the current ticket office, shop and site museum (1980s, report lost?).
- Barbican: resurfacing of entrance road with stone block paving (1992, records surviving).
- Barbican: watching brief during construction of current ticket office, shop and site museum (1993, recorded).
- Barbican: watching brief revealed evidence of possible 18th-century stable block west of the present entrance to the barbican. No deposits recovered (2000, recorded).

- Barbican: excavations of driveway in the barbican revealed part of Barbican gatehouse. Structural evidence from excavation suggests that 15th-century view of castle is probably correct in showing a gate with a small structure and flanking towers. Width of barbican curtain wall estimated from rubble remains at *c.* 2m. Suggestion that passage through barbican was raised in the 15th century, arguing for this zone's continued use in this period. Assemblage of animal bones (poultry and game) argues for presence, nearby, of a high-status residence (1999–2000, recorded).
- Keep/enclosure: excavation of area adjacent to keep (1914, no surviving record).
- Keep: excavation of ground floor of keep (1916, no surviving record).
- Keep: photogrammetry of all external elevations (1982, records surviving).
- Cell block: photogrammetric survey (1982, records surviving).
- Cell block: rebuilding of external steps using reclaimed stone (1992–93, records surviving).
- Cell block: rectified photographic survey of interior walls (1997, records surviving).
- East enclosure wall: excavations undertaken in area adjacent to eastern curtain wall stretching from the Robin Hood Tower to the chapel north of the Great Chamber (1911–12, no records surviving).
- East enclosure wall: excavations in the ground floor of apartments between the chapel and Great Chamber (1914, no records surviving).
- East enclosure wall: excavations in the vicinity of the gateway in the eastern curtain wall and Robin Hood Tower (1925, no records surviving).
- Hall complex: excavation of staircase adjoining the north-west corner of Scolland's Hall (1911, no surviving records).
- Hall complex: excavation of Gold Hole tower (pre-1946, no records surviving).
- Hall complex: gravel added to the interior of Scolland's Hall (1989, records surviving).
- Cockpit enclosure: excavation of foundations of non-extant 12th-century north-east enclosure wall (1914, excavation plan surviving).
- Cockpit enclosure: geophysical survey of Cockpit enclosure (1999, records surviving).
- Cockpit enclosure: examination of vertebrate remains from the area suggested that traces of bone meal, animal carcasses and waste was used in the 19th century to fertilise vines. There is evidence of a 19th-century winery established in the Cockpit (2000, recorded).
- Cockpit enclosure: further assessment of bone material from the Cockpit suggested that cattle, caprovid, pig and a single dog were among remains from medieval contexts (2001, recorded).
- South enclosure wall: excavation in the vicinity of the grass bank and further west (1993–94, no records surviving).
- Enclosure space/'bailey': "Nothing is known of the bailey during the medieval period because it has subsequently been buried under Victorian overburden."
- Enclosure space/'bailey': The level of the accumulation of soils in the enclosure area compared to the ground floor of the range of buildings arrayed on the south enclosure wall west of the collapse zone is estimated at over 1.5m.

2.3. Previous Surveys – Measured and Geophysical

2.3.1. 20th Century

Barbican – Geophysical survey revealed a small ditch cutting across the western portion of the barbican on a roughly east-west axis. Stony deposits may represent piles from robbing at the site, and a relatively modern path—running in parallel to and somewhat respecting the above ditch—turns southwards at its western end towards the segment of curtain wall between the west of the keep and the barbican wall projection (recorded, 1999).

Cockpit enclosure – Geophysical survey revealed two ferrous pipes converging near the south-west corner of the enclosure. A possible buried, non-ferrous tank was suggested for an anomaly detected in the north-east corner of the enclosure. Some shallow features identified may be the stone footings of buildings or walls. These respect each other and the north and west walls of the enclosure, though they are probably not lean-to buildings as they are too far removed from the enclosure wall (recorded, 1999).

2.3.2. 21st Century

Scolland's Hall – Rough measured survey undertaken by Nick Hill and Mark Gardiner for their discussion and analysis of Scolland's Hall in the context of early English halls (2018, 2 journal articles).

Enclosure Space/'Bailey' – Geophysical survey undertaken by Wessex Archaeology with the ambition to inform English Heritage's project to introduce a new interpretation scheme to the castle and renovate the site museum. The survey covered an area of 0.75 ha within the main castle enclosure/'bailey' and aimed to detect subsurface structures up to a depth of 2–3m (dependent on local conditions). Towards the eastern extent of the survey, a network of linear and rectilinear responses has been identified that is thought to pertain to buried structural remains. These responses comprise linear features appearing to represent continuations of extant building foundations noted on site, both parallel and perpendicular to these structures. It is probable that multiple phases of activity have been identified.

Traversing the western extent of the survey on a south-west to north-east alignment, a regular network of interconnected square and rectangular high amplitude responses corresponds to the position of the early 19th-century barracks. These are visible as parch marks in aerial imagery of the site

and noted on historic OS maps from the late 19th and early 20th centuries. Several higher amplitude responses have been tentatively interpreted as archaeological in origin. The responses, while incoherent in form, are strong and appear across several timeslices generally in the vicinity of evident archaeological responses. These could indicate buried objects that could be the remnants of building debris, as suggested by the dispersion of the responses.

There are several high amplitude linear responses identified in the survey data. Some of these are thought to indicate buried underground services. Further trends are of unclear origins, and it is possible these anomalies are also caused by buried services, although an archaeological interpretation cannot be ruled out.

Of particular interest for the present project, and noted in the report, are a set of features in the eastern part of the enclosure, adjacent to the east curtain wall and exposed wall footings running out from it. These are identified in the geophysical survey report as Features 5007–5010 (covering an area c. 43 m north-west to south-east by 28 m north-east to south-west, up to c. 1.8m deep, good to meagre state of preservation), though further areas of interest were recorded. The details of these features are presented below as full-text quotes from the report alongside further observations:

- The most distinct feature in this group is 5007: "The anomaly appears to be a continuation of an extant wall, first becoming visible in Timeslice 6 [0.52–0.65 m] but becoming clearer in Timeslices 9 [0.84–0.96 m] to 11 [1.05–1.17 m]. The continuation of the wall is 11.2 m long and 1 m wide, on an east-north-east to west-south-west alignment. A perpendicular anomaly is noted to the western end of this, measuring 13.2 m long by 1 m wide. Together, these anomalies appear rectilinear in form and, as they are on the same alignment as extant walls and perpendicular to the eastern castle court wall, they are interpreted as archaeological in origin."
- Feature 5008: "At 5008 a weak rectilinear anomaly is recorded measuring 6.8 m by approximately 9.4 m. In addition, weak responses are noted to the east of 5008 appearing to form smaller rectilinear anomalies that are on the same alignment to the responses in the vicinity, suggesting an archaeological origin. The western boundary of 5008 appears to continue to the south-east for 12 m before coinciding with the response at 5007. It is possible this continues further, although this becomes unclear due to the prevalence of linear trends in the vicinity across multiple timeslices."
- Feature 5009: "A strong linear anomaly measuring 10.5 m long has been identified at 5009. A shorter linear anomaly is noted to the eastern end and is perpendicular measuring 4.5 m long. It is not clear whether this anomaly is truly rectilinear in form due to the restricted survey in this area". It should be noted that this feature appears to be perpendicular to the nearest segment of curtain wall and roughly perpendicular to the segment of walling running south-west from the curtain wall on the north side of the portal north-west of Robin Hood tower.
- Feature 5010: "Within the rectilinear anomaly at 5007, an additional rectilinear response has been identified at 5010. This is visible in Timeslices 13 to 15 (from 1.26–1.59 m deep). Although more fragmented and amorphous, it is broadly rectilinear in form. This is interpreted as further building foundations."
- Feature 5014: "A group of anomalies is noted in the south-west of the dataset at 5014 in Timeslices 6 to 19 (0.52–2.01 m deep) and covers an area of approximately 70 m2. This comprises an area of complex responses surrounded by discrete anomalies, which is indicative of wall foundations containing an area of demolition rubble, although the shallowest and deepest responses are relatively weak. Given the east-west orientation of the building, it is possible this relates to a former chapel thought to be in the area (W. Wyeth pers. comm. 23/01/2019)." It is worth noting there is a loosely rectilinear relationship between this, admittedly very mixed, response and fragments of walling projecting at right angles from the segment of south curtain wall here (which is itself more likely the south wall of a building, rather than a curtain wall in the mould of the east and west curtains). It is plausible that there has been disturbance here from the levelling of the castle courtyard to accommodate a known parade ground adjacent to the accommodation block.
- Feature 5015: "Further possibly archaeological anomalies are noted in the central portion of the survey at 5015 and 5016. The anomaly at 5015 is noted in Timeslices 9 to 13 (0.84–1.38 m deep) and appears as a an area of complex responses flanked to the north and south by discrete and hyperbolic responses. These appear broadly rectangular on Timeslice 13. It is likely that this represents the remains of a building with demolition rubble contained by wall foundations to the north and south." Note, this feature appears to be wholly distinct from any others, which makes examining it a risk in terms of relating it to known features.

2.4. Collection Items From Previous Excavations

This section is drawn from the *Richmond Castle Research Agenda*, which was formulated as part of the English Heritage interpretation project. It was written by Richard Mason, Collections & Interiors Curator for the project, and small points of clarification have been added in square brackets.

English Heritage Trust's collection holdings for Richmond Castle comprises 386 catalogue entries in permanent collection. Over 95% of these entries refer to material recovered from the site through archaeological investigations. The majority of the collection was recovered across four campaigns of investigation. Smaller quantities derive from watching briefs around the site entrance (1989–91), Cockpit garden (2000–1) and a service trench outside the modern toilet block (2013).

- Investigations during structural consolidation by the Ministry of Works (1911–19): 95 entries.
- Excavation of the well outside St Nicholas' chapel by the Ministry of Works (1932): 49 entries.
- Excavation in the castle barbican prior to the development of the current visitor centre by Archaeological Services University of Durham (1999): 177 entries.

2.4.1. Animal Remains

Excavation in the barbican (1999) produced a small but informative assemblage of animal remains associated with processing and consumption in the late medieval and early post-medieval period.

2.4.2. Architectural Stone

An important assemblage of five architectural fragments derives from the early 20th-century investigations; these include a liturgical basin probably from one the chapels, an ashlar fragment with heraldic design, a Celtic-style head and two complete voussoirs. All require further research to fully understand their significance.

2.4.3. Coins, Tokens and Jettons

An assemblage of 22 coins, 7 tokens and 3 jettons. The coins largely fall into two main periods: 12th–14th century and post-medieval to early modern. Most significant is the presence of a 12th-century silver penny of Stephen, as the site [i.e., Richmond Castle] appears to have operated as a mint for Stephen, as evidenced by the discovery of a lead trial piece found outside the curtain wall in 1987. The small collection of trade tokens includes local examples which are important to the understanding of local trade in the post-medieval period.

2.4.4. Ceramics

Ceramics from the site include an important assemblage of 15th- to 16th-century pottery—Humberware-type jugs and urinals—largely deriving from the Ministry of Works investigations [chiefly along the east curtain wall]. This group is highly significant because of their discovery in an inner ward castle context. Despite this, the assemblage remains virtually unstudied. Later investigations in the barbican (1999) produced further late medieval and early post-medieval material, fully reported by Chris Cumberpatch (2000) and classified as an important resource for the study of ceramics within a castle context.

2.4.5. Glass

Early 20th-century investigations at the site produced small but significant quantities of vessel and window glass. Most significant is a fragment of a European window glass roundel, dating to *c.* 1500 and depicting the 'weeping virgin', which offers a crucial insight into the richness of the castle's chapel interiors. The remaining assemblage of window glass is important evidence for the developmental understanding of the non-secular buildings. A small but important assemblage of medieval glass vessel fragments further highlights the status of the site prior to abandonment.

2.4.6. Iron

The iron assemblage predominantly derives from the early 20th-century excavations and is largely utilitarian in type including: an important collection of medieval iron bucket fittings from the well, medieval tools, keys and unidentified objects. A small amount of later post-medieval material largely comprises architectural fittings and nails, as well as a cannon ball which might be associated with the Sebastopol cannon—removed from the site during the Second World War.

2.4.7. Lead

A small assemblage of only 5 objects, but it includes a complete 15th-century lead bucket from the well. The absence of lead from the site is perhaps more interesting than the assemblage itself and is potentially a result of the extensive removal of lead under the authority of the Crown in the 16th century.

2.4.8. Miscellaneous small finds

The remaining material consists of an unusual group of small finds which do not immediately offer any coherent narrative of the site but do require further research to fully understand their significance. Whilst the dating of the overall assemblage has yet to be confirmed, the assemblage appears to be largely post-medieval in date, with the medieval period represented by an elaborately carved 9th- to 11th-century bone pin and a fragmentary stone strap-end mould [Subsequent discussion and study has shown that the pin is likely to be 11th-century in origin]. The rest of the material appears to span the post-medieval period and predominantly consists of dress accessories and objects of uncertain use. A small group of material—including a pewter tankard, buttons and other dress accessories—appears to represent late 19th-century occupation of the site. Some of this material is almost certainly associated with the militia occupation, but the range of unusual, seemingly non-military dress, accessories could well be associated with the various Whitsuntide costumed events held at the site since 1892.

3. AIMS AND OBJECTIVES

3.1. Excavation

The limited and targeted excavation undertaken was considered a form of archaeological evaluation, defined as:

"... a limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts and their research potential, within a specified area or site on land, inter-tidal zone or underwater. If such archaeological remains are present field evaluation defines their character, extent, quality and preservation, reports on them and enables an assessment of their significance in a local, regional, national or international context as appropriate." (CIfA 2020, 4).

3.2. Research Questions and Objectives

Based upon the extant *Management Plan* and overall history of investigation within the Castle—and a discussion over the potential scope of the community excavation project between the project partners—the following broad research questions and topics were identified as of interest and achievable within the framework of the project:

- The initial funding for the project, and indeed the impetus of Celebrate Richmond 950 as a whole, was based on community appreciation of the historic origins of the town which still drive its character. From the start, a principal aim of the archaeology project was to engage a wide group of volunteers, provide an enjoyable and meaningful experience and provide a legacy of skills and a deeper connection with the archaeology of the Castle.
- With much recent focus of investment and fieldwork focusing on the undoubtedly significant Victorian and early 20th-century associations of Richmond Castle, there was a desire to investigate the medieval origins and development of the Castle, itself being foundational to the town of Richmond which the wider project was specifically celebrating.
- As set out above, the broad development phases of the Castle are understood, but a considerable number of specific elements—and more importantly key relationships between those elements—are not understood at all. Providing greater clarity to the evolution and development of the Castle, and therefore its changing purpose, was identified as a key research and conservation outcome of the project.
- Finally, an existing opportunity was provided by the recent geophysical survey work undertaken within the Castle (Schmidt 2019). Our project sought to be a 'second part' of that work, allowing for testing and interpretation of the earlier remote sensing results.

Based on these overarching aims and themes, therefore, the success of the project was considered to be in delivering the following outcomes:

- An engaged and upskilled volunteer base who have a greater sense of ownership and understanding of the place of the Castle within the development of the town
- A substantial increase in our knowledge of the development of the Castle through the medieval and post-medieval periods, leading to better understanding, opportunities for interpretation and engagement with visitors and conservation management
- A considerable furthering of the work begun by the geophysical survey, investigating and illuminating parts of the Castle's development and use which have been hitherto hidden.

Based on the broad research aims and topics, and considering the potential scope of the project and advice from key project partners, the following specific objectives were identified as targets for excavation.

- What is the relationship of the well near to Robin Hood tower, the 11th-century portal in the curtain wall just north-west of the tower and the massive wall footings or buttresses projecting at right angles from the curtain here? The geophysical survey identified wall features which may represent sub-surface extensions of, or demonstrate a spatial relationship with, known wall footings.
- What is the relationship between a large rectilinear feature identified in the geophysical survey and the other cluster of features in the area adjacent to the east curtain wall north of Scolland's Hall?
- What is the character of the geophysical anomaly in the centre-south of the Castle? Its isolated position relative to other features, and the fact that it does not appear to sit on rectilinear alignment with known or suspected buildings along the east curtain wall, open up a number of possibilities. Perhaps it relates to the post-medieval occupation at the castle? Perhaps it is itself the postulated chapel building or its fragmentary remains?
- What is the character of the geophysical anomaly in the south-west corner of the Castle? Its position may suggest it is related to a postulated chapel in this part of the castle enclosure. Perhaps it relates to the buildings arrayed along the south wall here, whose exposed wall footings appear to be medieval (13th–14th century).

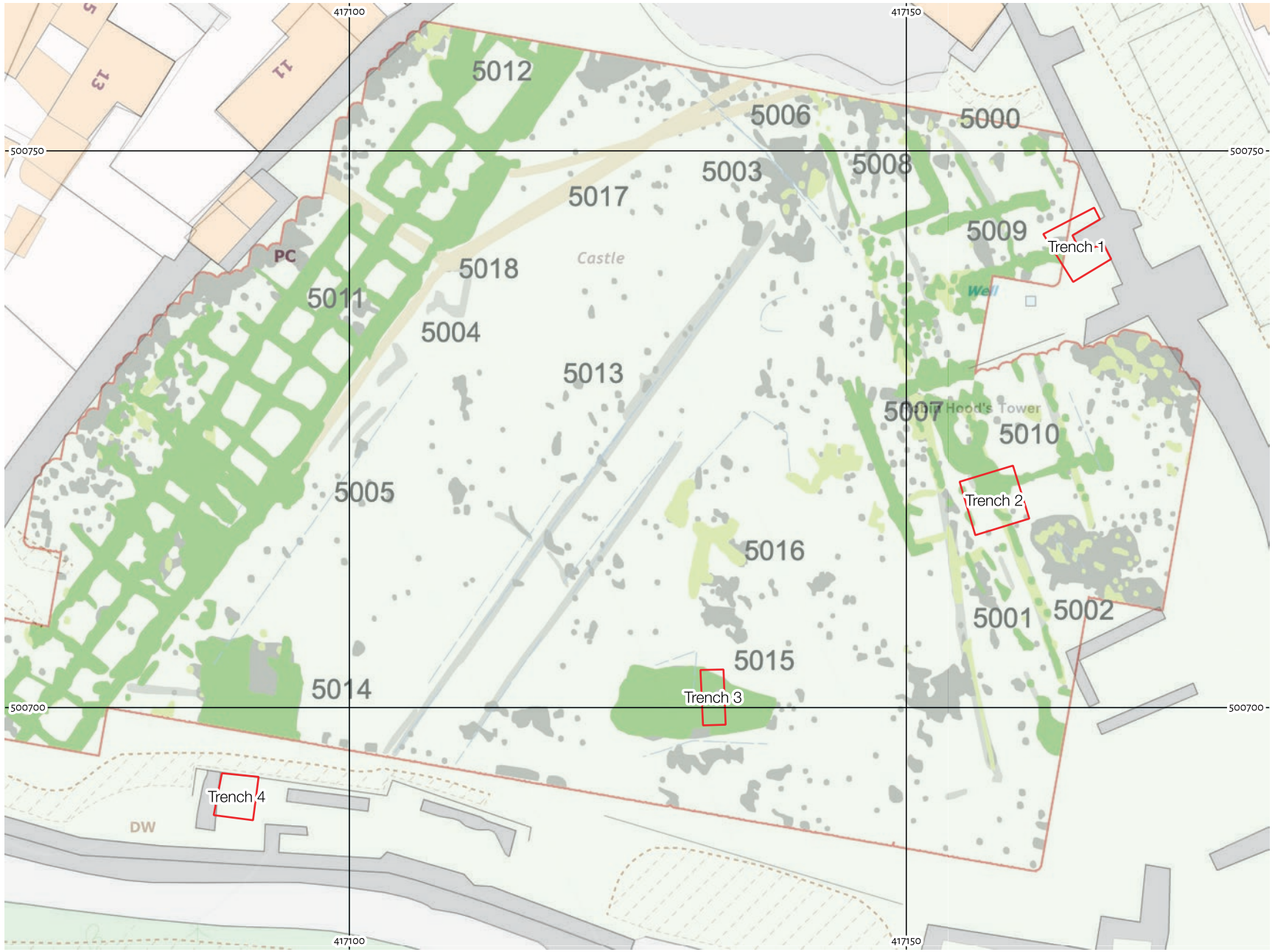


Figure 2. Location of trenches in relation to anomalies identified during the earlier GPR survey (Schmidt 2019).

4. EXCAVATION RESULTS

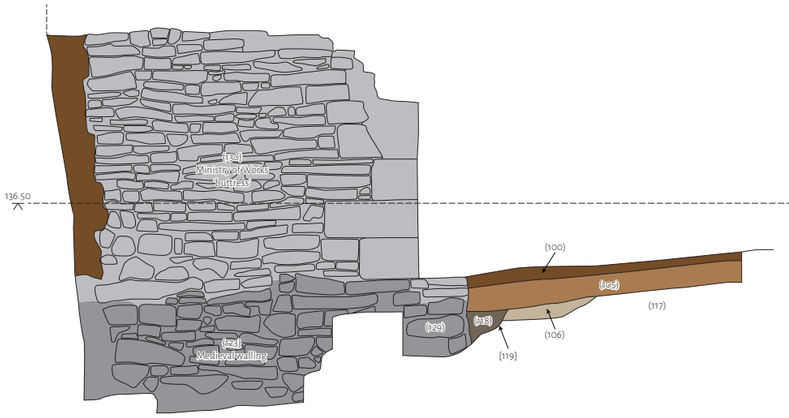
4.1. Trench 1

Trench 1 was located in the north-east of the bailey, adjacent to the curtain wall to the immediate north of Robin Hood Tower. The trench measured 5 m x 5.2 m in its longest dimensions, though the majority of the centre of the excavation area was taken up with a large stone 'buttress' projecting from, though not tied to, the curtain wall. Trench 1 contained the most complex sequence of deposits seen in any of the trenches, due principally to the number of alterations which had been made to this section of the Castle's structure and infrastructure, both in the medieval period and after the Castle had fallen out of use.

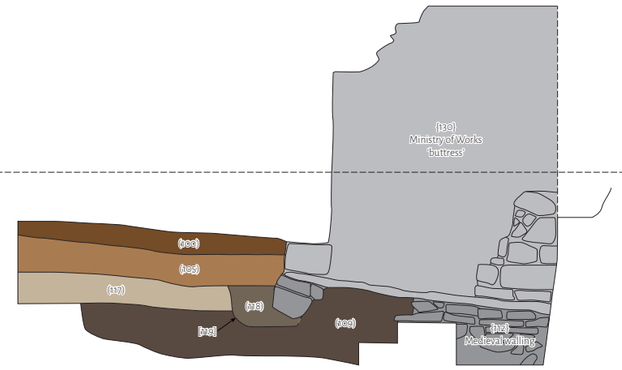
Given the later alterations to the structural remains and the surrounding land surfaces, natural substrate was not reached in any of the sondages excavated within the trench. The earliest structure encountered was a step foundation at the base of the original Castle curtain wall (106), revealed in a sondage in the north corner of the trench. Although of little interpretive value to the other deposits and structures in the trench, it is nevertheless of interest to demonstrate a little more about the constructional form of this part of the Castle's early defensive perimeter.

Figure 3. Overall view of Trench 1. The gap in the curtain wall is visible with the Ministry of Works wall infilling the gap. The difference between the medieval walling and the Ministry-created 'buttress' is also clear. Finally, the loosely compacted rubble fill of the former sally port ramp can be seen in section in the right-hand side of the trench

A considerable portion of the southern half of the trench comprised a loose stony deposit (109) filling a broad amorphous and irregular cut [116]. The fill was very poorly consolidated and represented a dump or backfill of stone rubble with a loose sandy matrix. The nature of the fill is the reason for the partial collapse and degradation of the stonework in the south-west corner of the structure above. Where it could be observed, the cut at the limit of the deposit ran towards the curtain wall, effectively meaning that the feature is a former depression or ramp seemingly leading from the inner bailey and dropping down to meet the curtain wall at a point below the current ground surface. Examination of the exterior of the curtain wall indicated that, despite the later Ministry of Works consolidation and reconstruction, a probable jamb of an early gate or door through the wall survives. The jamb on the exterior of the curtain wall aligns with the limit of extant medieval fabric on the interior side of the wall, observed in the south-east corner of the trench. Considering all of this together, it seems likely that the deposit and cut represent the access ramp for an early small gateway or sally port in the curtain wall, latterly backfilled with rubble when it was no longer necessary or considered desirable as a feature of the Castle's architecture. The fill itself (109) contained only pottery of medieval date with no later examples, principally Tees Valley ware B and B/C types along with other locally produced wares, all of which had a broad circulation of the late 13th to the late 14th centuries. Other finds from this



Section A



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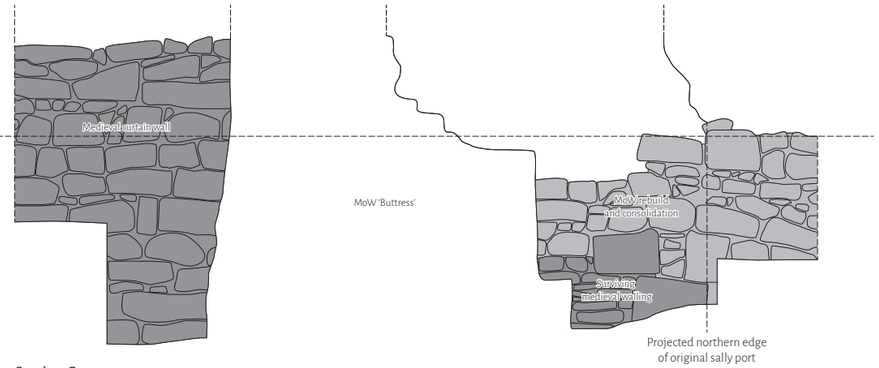

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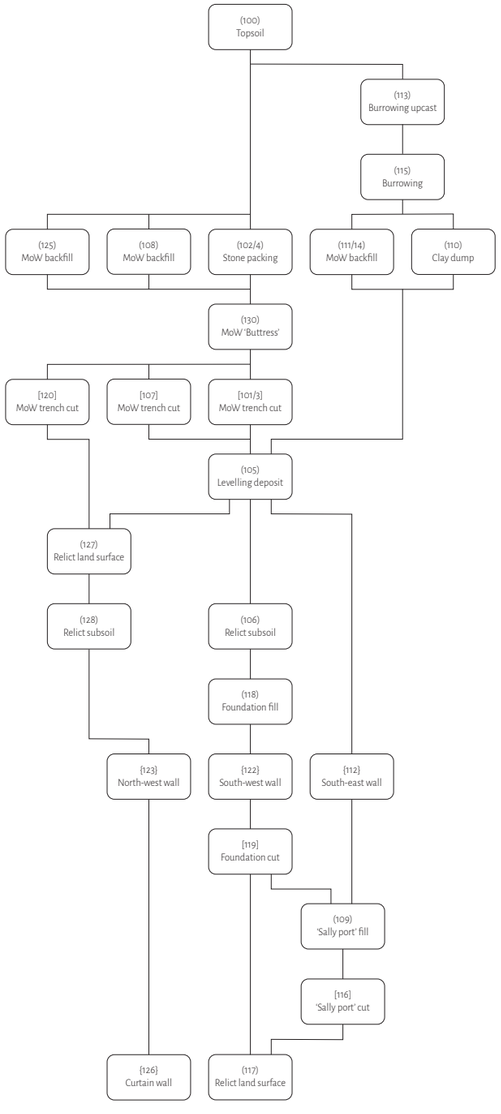
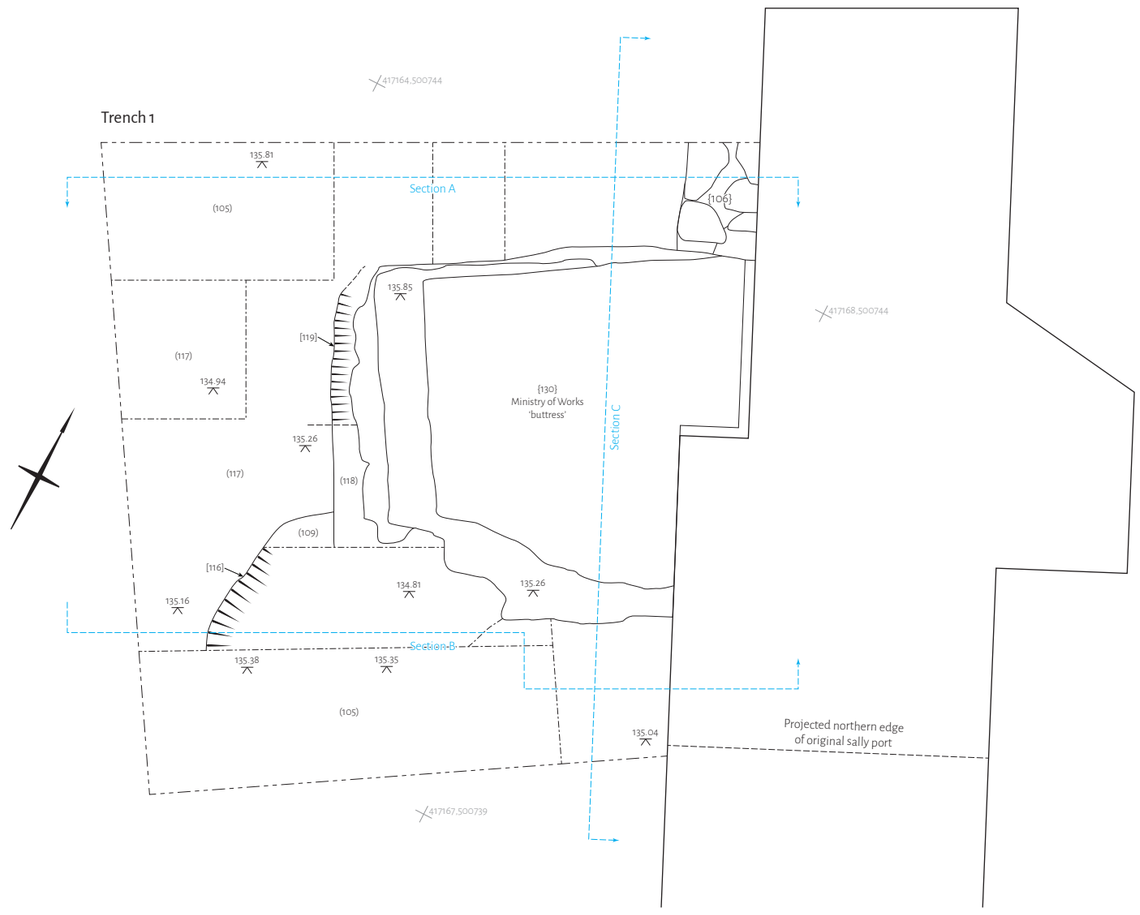




Richmond Castle
Richmond
North Yorkshire
NZ 17132 00721

MOOR & VALE

Trench 1 plan, sections and matrix

Fieldwork: VL, CS, JB July 2021
Drawn: JB August 2022
Scale: 1:50 @ A3
Drawing Version: 1.0

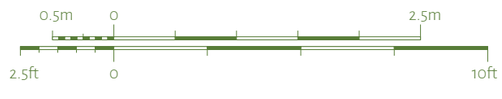


Figure 4. Looking north-east at the eastern corner of Trench 1. The surviving medieval foundations of the square building are to the left, truncated by the loose rubble beneath and capped by the Ministry of Works buttress above. The large square blocks at the base of the facing wall are *in situ* medieval stonework; all the material above and to the right of them is 20th-century construction.

deposit included square-section nail fragments, a piece of iron strapping and a considerable volume of animal bones predominantly from medium and large mammals, none of which are more tightly dateable than the pottery evidence.

The reconfiguration of the former sally port created an initially stable area of ground immediately inside the curtain wall and allowed for the creation of a small square building {112, 122, 123} measuring 2.9 m externally on each side. The only place at which the width of the wall (exposing the building's 'interior') was visible was in the south corner, where the underlying rubble fill of the sally port had resulted in considerable collapse of the later medieval stonework. The width of the walling at this point was estimated as 0.45 m. Along the north-west side of the building there had been considerable later truncation (see below), but along the south-west face, a small foundation trench survived. The trench [119] was an average of 0.15 m wide from the face of the foundations and was filled with a firm yellow-brown clayey sand (118). The fill of the foundation trench yielded a small assemblage of medieval pottery, again predominantly Tees Valley ware though also including a Brandsy-type ware sherd, with a broad circulation period of the 13th–14th centuries. This provides a neat *terminus post quem* for the construction of the building, suggesting at least a broad contemporaneity with the infilling of the sally port.

The next most recent sequence of deposits investigated represented the long-term stability of the medieval building and its surrounding area. This was principally represented by deposits of relict subsoil/land surfaces that had developed against the north-west side of the building (128, 127) and the south-west side (106, 105). It is probable that the two sequences are varied forms of the same wider deposit, but the nature of the excavation meant that this could not be established definitively. The more extensively sampled and observed of the two sequences were deposits (105) and (106). Deposit (105) was a heterogenous and mottled clayey silt that is considered likely to be a long-term accumulation deposit at its base but also showing evidence of being altered and moved through some sort of levelling episode towards its upper surface. Deposit (106), in contrast, was more homogenous and is most likely to have been a surviving patch of undisturbed relict subsoil. Indeed, (106) was one of the deposits in the trench which yielded only pottery of a 13th- to 14th-century date. Overall, these deposits served as a chronological marker between the intact medieval deposits and the more-recent levels. They represent a long period of relatively stable land from the construction of the small building, through its use, abandonment, and ultimately the abandonment of the Castle itself.

Although not visible as an event within the Trench deposits, at some point after the construction of the medieval building (and hence the blocking of the probable sally port), there was a collapse of a section of the curtain wall. It is only possible to say this happened prior to the 20th century reconstruction and consolidation, though more detailed examination of the form of the surviving curtain wall may provide a more precise date. It is considered likely from the condition of the loose stone rubble packing the 'sally port' that this section of walling may have been weakened by its presence, and this was one factor in the collapse. It is also possible that the extra strain on parts of the curtain wall by the upward extension of Robin Hood Tower around the early 14th century was

a contributory factor. It is very unlikely that a considerable collapse would not have been repaired during the active life of the Castle, and so we can postulate a date range for the event of between the 16th and 19th centuries. It is clear that the section of collapse has been heavily consolidated and stabilised though this is more likely to all date to the period of the Ministry of Works renovations.

All the remaining deposits and structures excavated within Trench 1 also dated to the mid-20th-century programme by the Ministry of Works, though it is clear that their operations went considerably beyond consolidation. Eleven separate contexts were identified including the cut and fill of four sections of probable foundation trench (120, 125; 107, 108; 101/3, 102/4) around the footings of the medieval building and small areas of dumped or levelling material only observed in sondage on the north-west side of the building (110, 111, 114). In addition, the principal Ministry of Works operations comprised the exposure of the medieval foundations, their capping with a concrete raft and the creation of the 'buttress' (130) on the same footprint. The 'buttress' was left untied to the curtain wall, but the creation of a fine corner finished with alternating ashlar quoins demonstrates that the stone had been reused from an earlier structure. This could be the rough medieval building upon which it is built or, perhaps more likely, the stone derived from the collapsed section of curtain wall. The surviving section of medieval walling, which included the return leading to the former sally port, was built over to create a low wall crossing the gap in the curtain wall. The gap itself was consolidated, with some of what were presumably ragged edges 'finished' to appear original.

Where not disturbed by the later works, the developed and mixed deposit (105) served as the subsoil to the modern topsoil and turf horizon (100) which capped the sequence.

4.2. Trench 2

Trench 2 was located towards the eastern side of the bailey, approximately 20 m west of the curtain wall between Robin Hood Tower and the Fallen Tower. It was situated to target a confluence of linear anomalies identified from GPR survey in the hope that they could be characterised as potential building ranges extending north from the main domestic part of the Castle around Scolland's Hall. The trench measured 5 m2 in plan though given time and resource constraints only the central section, measuring 5 m x 2m in plan, was excavated lower than the subsoil horizon.

The earliest deposit within the revealed sequence was the natural clayey sand substrate (211) reached at the base of a sondage at a depth of 1.5 m below the modern ground level. This demonstrates the depth of later deposits which have accumulated or been deposited within the Castle's inner bailey.

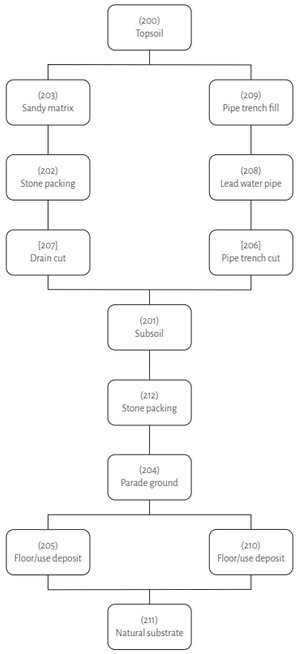
The substrate was overlain by a seemingly long-lived floor or use deposit (205, 210) comprising a grey sandy clay with charcoal inclusions and occasional areas of packed stone, suggesting rough flooring or stabilisation of the earth floor surface. It is seemingly a relatively long-lived deposit given the presence of artefactual evidence within it and not just on the upper surface. In addition, context (210) was a large lens within the deposit, potentially representing alteration of the surface, though the interface between the two contexts was graded rather than sharp, possibly the result of previous waterlogging. Contexts (205) and (210) contained a mixed deposit of pottery, all of which dated to the medieval period with an overall range of circulation of the late 11th through to the 14th century. The presence, in particular, of a sherd of handmade Buff Sandy ware in (210) is an indicator of activity during the earliest years after the Castle's construction. This dating of the deposit was supported by the find of a silver penny struck in the latter years of the reign of William the Conqueror (*c.* 1081–87).

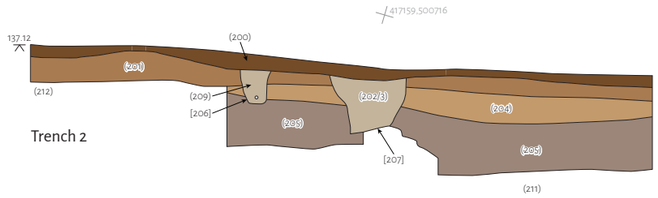
The principal artefactual association with the floor/use deposit in Trench 2 is the considerable quantity of animal bone throughout. A total of 232 individual pieces of bone were recovered from (205) and (210) combined, the majority of which represented indeterminate medium to large mammals. Of the identifiable species present, the most prevalent was pig/boar followed by sheep/goat. Interestingly, however, there were also remains of red deer, European hare, pheasant and 3 pieces of unidentified Galliformes (e.g., chicken, turkey, quail etc.). Material recovered from the later overlying deposit, but potentially derived from ground disturbance of the medieval layers included the only remains from the site of common crane.

No structural features such as walling, postholes or beam slots could be identified within the floor deposit, and a sondage through the deposit revealed no 'made' surface such as flagging or cobbling. The concentration of faunal remains and dateable small finds within the deposit, however, indicate that it was a clear focus for activity, seemingly over a relatively long period. Given this, the deposit has been interpreted as the remains of a floor of an abattoir or butchery associated with a semi-permanent range of possibly open-sided timber buildings.

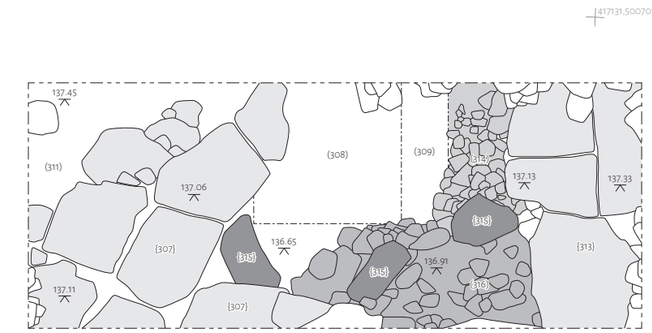
The medieval deposits were sealed by a clay-heavy layer of imported material (204) interpreted as forming the edge of the late Victorian to early 20th-century training/parade ground from the period when the Castle was in use by the army. Small sections of stone surfacing survived rammed into the upper face of this deposit (212) at the western end of the trench, most likely representing rough revetting or packing to the eastern side of the parade ground to prevent the clay slipping downslope towards the curtain wall. A brown/grey clayey sand subsoil (201) had formed above the parade ground deposit, presumably representing the land surface during the 19th and early 20th centuries.

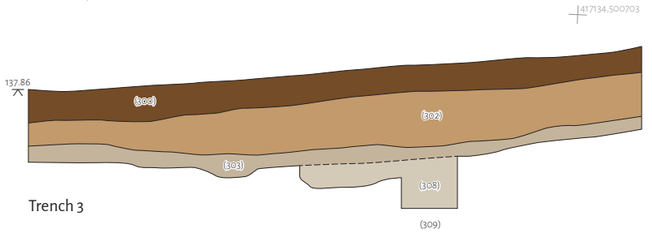
At a slight natural break in the slope, interpreted as the original eastern edge of the parade ground, a stone-lined ditch (203, 203) measuring 0.62 m and 0.48 m deep had been cut through all deposits except the topsoil and turf. The stone packing within did not yield any worked fragments and appeared to be reclaimed rubble. Given the form and date of the feature, it appears to have been cut as a drain following the edge of the parade ground to aid run-off towards Scolland's Hall. It is likely that the stony fill of the drain and revetting to the edge of the parade ground are responsible for the main linear anomalies seen on the GPR data in this section of the inner bailey at least.



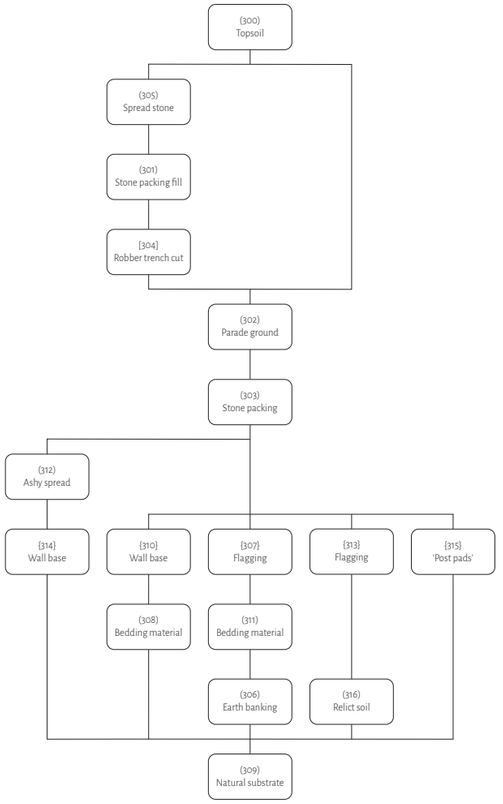


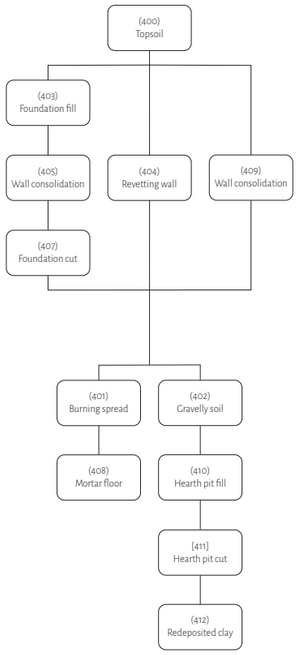
Trench 2

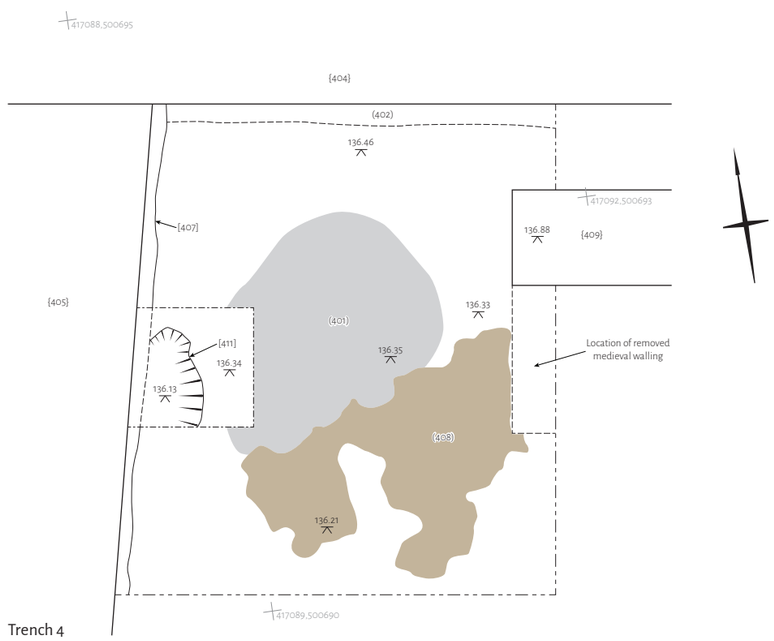




Trench 3







Trench 4

Richmond Castle
Richmond
North Yorkshire
NZ 17132 00721

MOOR & VALE

Trenches 2,3 and 4 plans, sections and matrices

Fieldwork: NB, RTW, MB, SM, ES, JB July 2021
Drawn: JB August 2022
Scale: 1:50 @ A3
Drawing Version: 1.0

Figure 5. South-facing section of Trench 2. The graded interface into the clay-heavy use deposit can be seen, as can the scattered stone surfacing at the base of the trench. The later stone filled drain and lead water pipe are also visible in the section.

Immediately to the west of the drainage ditch, a second smaller trench had been cut following roughly the same alignment (206, 209). This had been cut to carry a lead water pipe from the direction of the Keep (the location of a mains water connection point) towards Scolland's Hall. It is most likely that this feature relates to the Ministry of Works renovations in the mid-20th century, operations which would have required water supply for mixing mortar in various points of the Castle, thus obviating the considerable effort in manually handling bowsers or barrels long distances. It would be unsurprising to find similar water pipes across other parts of the inner bailey.

The sequence of excavated deposits was capped by the modern topsoil and turf layer (200).

4.3. Trench 3

Trench 3 was located in the central south part of the bailey and targeted a large oval feature identified through the GPR survey. This was considered relatively anomalous, being set away from the curtain walls and appeared to represent the spread stone rubble from an isolated building, potentially a chapel known to have existed within the south side of the inner bailey. The trench measured 2 m x 5 m in plan and was aligned on a north to south orientation.

The earliest deposit encountered within the Trench was the grey-brown clay substrate (309), though as in Trench 2, it was only revealed at the base of a central sondage at a depth of 0.83 m below the modern ground level.

The principal feature encountered with the trench was a series of areas of stone flooring, including flagged and cobbled areas. These were preceded by a relict soil (316), only encountered in truncated patches at the south end of the trench, and an episode of land preparation, presumably relating to the creation of the flagged surface. This latter was represented by a dumped deposit of clayey silt (306) across the northern end of the trench which provided a raked or angled surface for the overlying stone slabs which defined the northern edge of the overall feature.

Although representing an apparently coherent area of stone flooring, indeed much larger than the extent of the trench if the results of the GPR reflect an accurate picture of the sub-surface remains, there were areas of differential treatment or 'sub-features' within the floor. The two most prominent areas of coherent stone flagging were {307} and {313} at the northern and southern ends of the trench respectively. The flagstones of surface {307} were directly laid on a compacted bedding deposit of mid-orange-brown, clayey silt (311) and comprised an arc of angled slabs, seemingly forming part of a curved northern end to the overall feature. An additional large slabbed appeared to be part of the same section of flooring and had been set at right angles to the arc of northern stones, projecting towards the approximate centre of the surface.

The flagstones comprising {313} had been set directly onto the relict soil (316) and covered the southern end of the

Figure 6. Partial excavation shot of Trench 3 showing clear divisions of the principal stratigraphy. From highest to lowest: topsoil, subsoil with stone fill of robber trench visible, sandy clay training/ parade ground, stony grey-brown accumulated soil and stone flag paving.

trench. Given the constraints of the trench it is not possible to say whether these represented part of a discrete surface within the centre of the feature or are the northern extent of a continuous floor which stretches to the feature's southern edge. Given the similarity of materials and form between surface {307} and {313} it is considered likely that they were laid as part of the same phase of construction, but there was no physical relationship between the two to demonstrate this definitively.

Between the two defined areas of flagging, the character of the feature was notably different and incorporate a series of possible features. Three larger flat slabs—though not as large or regularly fitted as the flagstones to the north and south—were identified as possible post pads {315} in a roughly north-south arc between the two areas of flagging. The northernmost of the three was set into the crook defined by the stone slabs of {307}. The second post pad was set into a rammed spread of small cobbles (310) and its clay bedding layer (308). This spread appears to have been a rough surface infilling the gap between the two areas of flagging. Of note, is the presence of a stone roof tile with a peg hole incorporated into the bedding layer. Whilst its position means it is unlikely to be from a contemporary structure over the flagged and cobbled surface, it is evidence of the form and materials of some precursor medieval building probably within the inner bailey.

The third post pad sat partially on top of the cobble surface (310) but also defined the wester end of a possible wall foundation {314}. Although formed from similar rammed cobbles and pebbles to the cobbled surface, deposit {314} appeared more compacted, as if it had carried—or been intended to carry—a heavier weight. In addition, flecks of possible degraded mortar were identified only within this deposit, hence the tentative interpretation that it represented the foundation for a dividing wall crossing the overall feature east to west.

The whole flagged and cobbled surface was sealed beneath a deposit of brown-grey silty sand (303) containing a notable volume of loosely compacted stone at its base, seemingly representing the break-up of parts of the underlying surface. It is likely that this deposit represented a long-term accumulation after the abandonment of the feature, potentially contemporary with the near-abandonment of the Castle at the end of its medieval life. Whilst there was a considerable assemblage of pottery recovered from all deposits in Trench 3, it is of note that all the contexts identified on site as being of undisturbed medieval date indeed yielded only pottery of a 12th- to 14th-century date. Similar forms were present as in the other trenches, principally Tees Valley wares and a sherd of slightly later Reduced Greenware. The post-abandonment date of context (303) is supported by the presence of three particularly fine sherds of Cistercian ware, dating to approximately 1450–1600.

Above this, the whole sequence was sealed beneath a substantial dump of spread and compacted silty clay (302) with an average thickness of 0.45 m. Similar in form and material to that observed in Trench 2, this almost certainly represents the material imported to form the parade ground in the late 19th to early 20th century, resulting in a considerably raised but level ground surface inside the inner bailey. Indeed, when viewed in section, the relatively level modern ground surface across the top of the trench is the product of the pa-

Figure 7. Post-excavation view of Trench 3 facing north. The areas of stone flagging are visible, including the curved and embanked stones forming the edge of the feature at the far end of the trench.

rade ground dump infilling the hollow formed by the medieval stone surface.

The only indication of additional activity after the formation of the parade ground was a narrow slot trench {304} filled with packed stone (301) and cut into the top of the parade ground dump. The feature potentially represented either a small drain or the robber trench from a small temporary structure that was placed in this part of the bailey. Whichever interpretation is accurate, however, its position in the deposit sequence means it must date to the 19th- and 20th-century uses of the Castle. This was in turn sealed by a discontinuous spread of broken stone and pebbles (305), seemingly a small area of surfacing of uncertain purpose. Finally, the sequence was capped with the modern topsoil and turf horizon (300).

4.4. Trench 4

Trench 4 was located in the south-west corner of the bailey, it was situated to target a geophysical anomaly whose position suggested a relationship to a postulated chapel in this part of the castle enclosure. This trench was opened late in the excavation as volunteers came available from their work in other trenches, and therefore fewer features could be subjected to detailed investigation. Nevertheless, it was possible to investigate and record a few key deposits. The trench measured 3.5 x 4 m in plan though it was constrained at its northern end by the angle of the adjacent wall.

The earliest deposit within the sequence was a redeposited layer of the clay substrate (412) seen only at the base of the investigation sondage against the western edge of the trench. The observed medieval deposits comprised a shallow sub-oval pit feature (F411) cut down into the redeposited substrate and in turn truncated by the later remodelling of the adjacent wall (see below). The pit contained an organic-rich fill (410) with signs of burning. Palaeoenvironmental assessment of the pit fill demonstrated the presence of abundant charcoal—principally branchwood and roundwood—with identifiable species present including oak (*Quercus*), hazel (*Corylus*), yew (*Taxus*), Maloideae (cf. hawthorn), *Prunus* sp. (blackthorn, wild plum or bullace), and Salicaceae (willow family). In addition, a small number of charred bread wheat grains were present in the sample assessed, along with fragmentary remains of fish bones, egg shell and fragments of fired clay and mortar. Finally, a small assemblage of faunal remains was recovered from the pit fill, including bones of indeterminate small and large mammals and parts of two oyster shells. The feature is considered most likely to be the basal remains of a hearth pit. A single charred bread wheat grain was submitted for radiocarbon dating, returning a broad range of cal AD 1050–1260 (95.4% probability) and a tighter estimate of cal AD 1160–1220 (68.2% probability). The results are discussed in more detail below. A single sherd of Buff sandy ware recovered from the pit fill would also fit comfortably in this date range.

A discontinuous mortar floor surface (408) was also exposed across the centre part of the trench, clearly having been truncated through later action but surviving surprisingly well considering its very shallow depth beneath the modern ground surface. The floor had been laid as a lime-based mortar screed and almost certainly represented an internal surface. It did not display any areas of heat-affection as would be expected from the base of, or area immediately surrounding, industrial structures such as kilns, and indeed no evidence

Figure 8. View of Trench 4 facing south. The discontinuous mortar floor can be seen in the centre-top and centre-left, and the visible section of the hearth pit is to the right of shot against the later consolidation cut for the wall.

of manufacturing processes was recovered from the trench. Perhaps the most interesting aspect of the mortar floor was its shape at the eastern edge. Here, the original edge of the flooring survived at the point where it previously abutted a now-lost wall and then turned at a right angle around the head of the wall, presumably a door threshold. Unfortunately, the truncation of the mortar flooring meant that there was no direct relationship between it and the hearth pit, but given its location and apparent relationship with the medieval wall footings, it is reasonable to interpret it as medieval in date.

The 20th-century features within the trench were all associated with the Ministry of Works restoration and consolidation of the site. This included the alteration of walls {405}, with the works comprising the excavation of a deep cut [407] against the wall to ensure consolidation of the remains down to foundation level. Unfortunately, this also resulted in the truncation of the hearth pit. Of perhaps more interest in terms of charting the extent of the Ministry of Works ambitions are the alterations to wall {409} on the eastern side of the trench. Above ground this appears to be a complete wall, albeit a stub, finished and squared at its western end. As noted above, however, the mortar floor shows that the wall originally returned to the south before terminating at, presumably, a door reveal. The modern wall shows no surviving evidence of what must have been a ragged and untied end prior to the Ministry operations.

Within the centre of the trench, immediately beneath the topsoil, a dark area of heat affection or former burning was identified (401). The spread had very diffuse edges and demonstrably overlay earlier features. It is considered most likely that it represents an episode of 20th-century burning, potentially from one or more of the fireworks displays that used to be held inside the Castle.

The revetting wall to the north, holding back the accumulated material that has built up the ground level of the inner bailey is also part of the Ministry of Works programme and included a gravel deposit against its base (402), presumably to act as additional drainage. Finally, the sequence was capped with a thin modern topsoil horizon and turf layer (400).

5. MEDIEVAL AND LATER POTTERY

Dr C.G. Cumberpatch

5.1. Introduction

The pottery assemblage from Richmond Castle was examined by the author in January 2022. The assemblage consisted of 762 sherds of pottery weighing 4215.5 grams representing a maximum of 737 vessels. The total figures for each of the four trenches are summarised in the table below while the details of the assemblage from each trench are given in the appendices.

Trench	Number	Weight	ENV
1	542	2887.5	522
2	55	371	55
3	129	783	125
4	35	173.5	34
Unstratified	1	0.5	1
Total	762	4215.5	737

5.2. The pottery

The pottery assemblage as a whole spanned the period between the earlier part of the medieval period to the 20th century, but within this long timespan there were considerable variations in the numbers of sherds. The commonest medieval wares dated to the period between the early to mid- 13th and the 14th centuries with some of the potentially earlier wares also probably falling within this period. Late medieval (late 13th/early 14th to mid-15th century) and post-medieval pottery (*c.* 1450–c. 1720) was notable by its scarcity while early modern wares (*c.* 1720–c. 1840) were hardly any more common. A significant quantity of recent pottery (*c.* 1840–*c.* 1950) attests to the continuing activity within the castle into the 20th century. The proportions of the various wares, expressed as a percentage of the total assemblage, are tabulated in the appendices. The average sherd weight was low at 5.7 grams, and this figure was consistent across the four trenches, as noted on each data table.

The earliest types of pottery are probably the hand-made (HM) wares of which four examples were identified in contexts 105, 201, 205 and 210 and a further two, decorated with splashed glaze, also in context 201. These sherds could not be identified to a specific source (in common with most of the earlier medieval wares) but form part of an emerging phase of hand-made pottery production which seems to date to the period between the mid-11th and early/mid-12th centuries. Similar wares have, in recent years, been identified on sites across Yorkshire and the North East, including Durham (Vince and Mould 2009; Cumberpatch 2018a; 2019a; in prep b), Whitby Abbey (Cumberpatch in prep a), Doncaster (Cumberpatch in prep b) and Wetherby (Young and Vince n.d.). Quite how this relates to the wider development of the pottery industry is currently being investigated (Cumberpatch in prep b).

A wide range of local and regional wheel-thrown wares, unidentified to any specific source, were classified under generic, descriptive names. Buff Sandy and Buff Gritty wares, together with the variants of these types (including Buff-Grey Sandy ware, Buff-Orange Sandy ware, Buff-White Sandy ware, Buff-White Gritty ware) accounted for some 7% of the total with splash glazed wares (White Sandy ware and Sandy ware) adding another 0.3%. This reflects the wider situation in North Yorkshire and neighbouring areas where buff and white-firing wares are common but where possible production sites are rare.

The commonest types of pottery in the assemblage were of local origin and fall into the Tees Valley ware category (Wrathmell 1987; 1990; Didsbury 2010). All three of the subtypes (A, B and B/C) were present and together formed 54.1% of the total assemblage. Within in this, Tees Valley ware A (and A- type) formed 18.58% of the total, Tees Valley ware B (and B-type) formed 28.2% and Tees Valley B/C ware (and B/C-type) formed 6.9% of the total.

Although Tees Valley ware can be seen as one component of the wider regional tradition of buff- and orange-firing wares (TVA and TVB respectively), the distinctive range of vessel types and rim forms (notably the bifid-rimmed jars, jug rims with pointed lips and the use of buff slip to create the distinctive finish seen on the B/C wares) sets it apart from similar regional types. Questions remain regarding the extent of variation in fabrics within the industry and the reliability of identifications on the margins of the core group.

A second unidentified group of sherds consisted of orange-firing wares (Oxidised Gritty and Sandy wares with Orange-Buff Sandy ware and Oxidised Coarse Sandy ware) constituting 3.2% of the total. Orange-firing (or Iron-rich) wares have been suggested as slightly later in date than the buff-firing wares (Vaughan 2007; Vaughan and Sage 2006), something that seems to be borne out by the replacement of Tees Valley ware A by Tees Valley ware B during the mid-/late 13th century although this leaves the issue of the use of buff slip to conceal orange-firing fabrics unexplained. It seems probable that there was more going on than a simple change in preferences amongst consumers from buff-white to orange ceramics, particularly in view of the apparent similarity in the type of inclusions seen in both the buff-firing and orange-firing wares (Cumberpatch in prep a). This is one of the many research questions relating to the medieval pottery industry in the region which await detailed investigation.

York Glazed ware (Mainman and Jenner 2013, 1203–1225) and Brandsby-type ware (Mainman and Jenner 2013, 1230–1245) formed minor parts of the assemblage. York Glazed ware

was represented by a single sherd while Brandsby-type ware, with thirteen sherds, formed 1.7% of the total. Both of these types are significant at the regional level and are found widely across northern Yorkshire. Despite the name, it seems that York Glazed ware was made outside York, most probably in potteries located to the north of the city, as were the Brandsby-type wares. The issue is discussed at length (using data compiled by Alan Vince) by Mainman and Jenner (2013, 1230–1233).

Three sherds of Scarborough ware (two of type 1 and one of type 2: Watkins 1987; Didsbury 2010, 235–237) were identified amongst the assemblage. The type remains poorly dated, but as a significant regional type, its presence on the site is perhaps to be expected.

An unusual feature of the assemblage was the presence of a small group of distinctive but unidentified wares distinguished by the presence of fine white chalk grains amongst the ubiquitous quartz (Chalk-tempered Sandy ware). These wares had hard, dense fabrics with a grey core and thin red internal and external margins. Chalk tempered wares are known from Hull and Beverley (Didsbury and Holbrey 2009) where they date to the period between the later 11th and early 14th centuries, and chalk is a common inclusion in pre-Roman Iron Age wares from the southern part of Holderness. The sherds in the present assemblage were of an unfamiliar type and, pending a definite attribution to a source, they remain poorly dated. Thirteen sherds (1.7% of the total) were of this type.

Later medieval wares, spanning the early 14th to mid-15th century were relatively rare with just five sherds of Humberware type, five sherds of unidentified later medieval sandy wares and forty sherds of Reduced Greenware (5.4% of the total), with a smaller quantity of the generally slightly coarser Early Reduced Greenware. Both Humberware and Reduced Greenware were part of a significant change in the character of medieval pottery which saw the buff- and orange-firing wares largely replaced by vessels with reduced bodies and extensive green glaze externally. In the case of Humberware, the glaze tended to be patchily applied with extensive areas of the unglazed surfaces oxidised to a dark orange colour. Reduced Greenware, as the name implies, was reduced throughout, and the dark green glaze often covered the entire surface. While Humberware circulated widely in southern Yorkshire (and was manufactured in York and at Cowick and Holme-on-Spalding Moor in the East Riding of Yorkshire), Reduced Greenware is virtually ubiquitous on sites of later medieval date across northern Yorkshire and North East England. The presence of a small quantity of Humberware is to be expected with the higher proportion of Reduced Greenware presumably reflecting its local origin.

The Reduced Sandy ware group was distinguished from the Reduced Greenware group by its hard, smooth, dense grey fabric, sometimes with lighter margins and containing moderate quantities of well-sorted quartz. With seventeen sherds of the type identified (2.3% of the total), this was a regular but scarce type. It should probably be considered as a sub-type within the Reduced Greenware group and, as such, is an indication of the extent of variability within the group, presumably related to the dispersed character of its production.

Post-medieval wares included five sherds of Cistercian ware (all from Trench 3) and four sherds of Green Glazed Sandy ware from Trenches 1 and 3. Cistercian ware is one of the key markers of post-medieval activity and is the first of the dark brown/purple wares which characterise post-medieval pottery production (Cumberpatch 2003). The Green Glazed Sandy wares are somewhat different as they maintain the medieval tradition of green glaze although, in contrast to earlier practice, this is found internally and externally on hollow wares and internally on new forms, notably wide shallow bowls and dishes.

Yellow ware, a distinctive counterpart of both Cistercian ware and Blackware, was represented by just one very small chip from context 102.

Later post-medieval wares were scarce with an unusual absence of Blackware and just two small sherds of Redware.

Early modern wares were somewhat more abundant than were post-medieval wares. Pottery manufacture in southern Yorkshire during the early modern period (*c.* 1720–c. 1840) has been discussed at length elsewhere (Cumberpatch 2014) and the broad outlines apply as much to northern Yorkshire as they do to the southern part of the county. Vernacular tablewares were manufactured locally in 'country potteries' using technology substantially similar to that of the post-medieval period and in a range of colours with distinct associations with the earlier wares. Late Blackware, normally one of the commonest types, was represented by a single vessel base (context 102), but a larger quantity of Fine Redware from contexts across the site may be a local variant of Late Blackware. The single sherd of Brown Glazed Fineware (context 300) could be considered as a variant of Late Blackware.

Mottled wares were represented by one sherd (context 105) and Slipware by two sherds (contexts 105 and 300). Both sherds were from hollow wares with the normally common press-moulded dishes apparently absent. Formal tablewares, in the form of Creamware were considerably commoner with 13 or possibly 14 sherds from contexts in Trenches 1, 3 and 4. The earlier White Salt Glazed Stonewares were represented by two sherds (context 105), as were the later Pearlwares (two very small sherds from contexts 300 and 300/301).

Utilitarian wares included both Yellow Glazed Coarseware (plain and mottled) and Brown Glazed Coarseware with one sherd of Late Redware. The dating of these wares is imprecise and all but the Late Redware span the 18th and 19th centuries. The date ranges cited in the data tables are based upon the characteristics of the individual sherds, but these should be treated as indicative rather than exact.

One sherd of Brown Salt Glazed stoneware (context 300) was of 18th-century type.

From the early 19th century, the vernacular tablewares seem to have been replaced by a variety of cheaply produced colourful wares including, amongst others, Banded ware (context 125), Sponged ware (contexts 124 and 300) and Colour

Glazed ware (context 300). Cane Coloured wares (including Mocha ware) were distinguished by the pale yellow or cane-coloured body. Three sherds of this type were present. Context 104 included a sherd with a relief moulded rose motif while context 105 produced a plain sherd from a bowl. A sherd of Mocha ware (context 400) bore a distinctive 'tree' in blue on a white slip band.

From around 1840 Whitewares, both plain and transfer printed, replaced Pearlwares. Taken together these types formed 8% of the total. The majority of transfer printed designs were unidentifiable as the sherds were too small but Willow and Asiatic Pheasants, two of the most popular patterns, were both present. Bone China was similarly present in both plain and transfer printed forms with the former much commoner than the latter and none of the designs identifiable to a specific pattern

Utilitarian wares included a sherd from a stoneware jam jar (context 400) and four sherds of Unglazed Red Earthenwares, at least one from a flowerpot.

Three items are worth particular note. Context 302 produced a stone with clear to green glaze on one surface, similar to stones from medieval pottery kilns. Context 300 contained a sherd of Buff Sandy ware type that showed signs of overfiring consistent with it being a waster from pottery manufacture. Both these were of medieval date and as it is extremely unlikely that pottery was being manufactured within the castle in the earlier medieval period, may indicate the import of soil or rubble, perhaps for building purposes. An unstratified context in Trench 3 contained part of a tripod spur or the type used in pottery manufacture from the 18th century to the present day and most probably of 18th- or 19th-century date. Again, this would seem to suggest the import of material into the castle from elsewhere.

5.3. Discussion

5.3.1. Trench 1

With 522 sherds, this trench produced the largest assemblage from the site as a whole.

Context 100, the topsoil and turf layer, produced a mixed assemblage of pottery which included medieval material similar to that from other contexts and other trenches but with small quantities of early modern and recent wares. Similar mixed assemblages came from contexts 102, 104, 105, 110, 114 and 124 with context 125 producing just one small sherd of 19th-century pottery. Inevitably the proportions of medieval to early modern and recent wares vary between these contexts and some also included later medieval Reduced Greenwares as well as later material alongside the 13th- to 14th-century wares which generally were the commonest component of the individual context groups. Thus, contexts 100 and 105 contained substantial quantities of 19th- and early 20th-century pottery while others (such as 104 and 114) contained just one or two sherds alongside larger amounts of medieval pottery.

Context 106, the earliest deposit identified in the trench, produced a substantial group of sherds within which Tees Valley wares (of all types) were the commonest element. Only one sherd, provisionally identified as Late Medieval Sandy ware, appeared to be later in date and there are good grounds for doubting the putative later medieval date of this sherd. Based upon the date range of the Tees Valley wares, a date within the later 13th to 14th centuries is probable for this context.

Context 109, suggested to be the fill of the sally port created at the point when the port was abandoned, produced an assemblage which consisted primarily of Tees Valley wares with B and B/C types predominating. Other sherds included a very small piece of Brandsby-type ware and a sherd of Reduced Greenware type, the latter being the latest sherd in the group, although it is probably no later than the late 14th century in date.

Context 118, the foundation of a small square building, contained a small group of Tees Valley wares with single sherds of Brandsby-type ware, Early Reduced ware and Chalk-tempered Sandy ware. None of these post-dates the 14th century although how far production of Tees Valley wares continued into that century (given that it sees the rise of the Reduced Greenware industry), is unclear.

Contexts 111 and 114, identified as sandy subsoil deposits, both contained mixed assemblages. In the case of 111, Buff Sandy ware and Chalk-tempered Sandy ware occurred alongside Tees Valley ware, mainly of B type. In contrast, the assemblage from context 114 was much more diverse with all three types of Tees Valley ware alongside Buff Sandy wares and small sherds of Reduced Greenware, Reduced Sandy ware and 19th-century Whiteware. It should be noted that all of the later sherds were small (less than 3 grams), and that rabbit activity was noted in association with this context, raising the possibility that the later pottery was introduced into an earlier deposit through the actions of these animals.

Context 117 produced a substantial assemblage which consisted primarily of Tees Valley B wares but also included Brandsby type ware, Buff Sandy ware and Chalk-tempered Sandy ware. The latest sherds included the base of a jug or jar in Reduced Greenware and a small sherd of Creamware, suggesting some degree of disturbance of an earlier deposit.

5.3.2. Trench 2

Only five contexts in Trench 2 produced pottery: 200, 201, 204, 205 and 210. Of these, context 200 was the topsoil and turf layer and 201 a 19th- to 20th-century soil horizon. Both contained mixed deposits which included medieval pottery (with Tees Valley ware predominant) and later wares up to the late 19th/20th centuries. The assemblage from context 201 included three sherds of hand-made pottery, potentially amongst the earliest from the excavation as a whole.

Context 204, a 'clay-heavy layer of imported material (204) interpreted as forming the edge of the late Victorian to early 20th-century training/parade ground' produced a small

group of four sherds, all of medieval date. Unusually, none of these were of Tees Valley ware type.

Context 205, a sandy clay floor or working area, contained a mixed group of sherds which included unusual types, notably Buff-grey Sandy ware (including a distinctive finger-impressed rim sherd), two sherds of Humberware type, Reduced Sandy ware and a sherd of hand-made Oxidised Sandy ware. Context 210, a sub-division of context 205, also produced a sherd of hand-made pottery, in this case in a buff sandy body.

5.3.3. Trench 3

Eight contexts in Trench 3 produced either single sherds or small assemblages of pottery: 300, 300/301, 302, 303, 306, 307, 308 and 312 (see Appendix 3 for tables). A small quantity of pottery also came from unstratified contexts. It should be noted that all of the examples of pottery manufacturing waste (described above) came from Trench 3, and it may be that this indicates the import of material from outside the Castle. Having said this, there is little other indication in the pottery assemblage of the deposit consisting largely or in part of imported and dumped material.

Context 300, the topsoil and turf layer, contained a typical very mixed deposit which included medieval wares alongside post-medieval, early modern and recent wares. Much the same was true of context 301 although this was smaller assemblage and rather less diverse in nature.

Context 302 produced a predominantly earlier medieval assemblage with individual sherds of Cistercian ware and Creamware and a small quantity of later medieval pottery. The absence of recent material is unusual given the association of this context with the military parade ground.

The assemblage from context 303, sealed by context 302, contained a mixed layer consisting of medieval and early post-medieval pottery with three sherds of Cistercian ware the latest type in the group. Medieval wares included both earlier and later types with Tees Valley ware B/C particularly notable.

Contexts 306, 307 and 312 all contained single sherds of medieval pottery. In the cases of contexts 306 and 307, these were Tees Valley B wares while the sherd from 312 might be slightly later, being a Reduced Greenware.

Context 308 produced three sherds of Tees Valley B/C ware, including the rim of a jug.

The unstratified pottery included a wide range of material from Tees valley ware to 19th- or early 20th-century Whiteware.

5.3.4. Trench 4

Trench 4 produced only a small assemblage of pottery (see Appendix 3 for tables), much of which came from recent contexts. The assemblages from contexts 400 and 403 consisted primarily of recent material, with earlier, residual, pottery in context 400. The assemblages from contexts 401 and 406 both consisted of medieval pottery with single small sherds of later 19th- to 20th-century material also present in each case.

Context 410 contained a single sherd of Buff Sandy ware of 12th- to early 14th-century type.

5.3.5. Conclusions

Given that they represented a concentration of consumers, castles formed an important market for local and regional potters and orders for batches consisting of hundreds of pots have been documented across the country. In addition, as Moorhouse has established (1978; 1983), smaller quantities of pottery arrived in the baggage of peripatetic households and visitors to the castle, and this mechanism probably accounts for the minor quantities of exotic pottery found in many castles. Despite this, the day-to-day needs of the inhabitants of most castles were almost certainly met by local or regional suppliers. In the case of Pontefract Castle, the occupants not only used pots in the local gritty fabrics but also obtained Humberwares from the Cowick potteries a considerable distance from the Castle. This was probably facilitated by the availability of water transport and the transhipment point at Knottingley and contrasts with the more local supply of gritty wares (Cumberpatch 2002, 217–219).

At Conisbrough Castle, Hallgate wares (types A and B), manufactured in Doncaster, were the commonest types in the later 11th to mid-/late 13th century period while from the late 13th century onwards the requirements of the garrison were met by the Firsby Hall Farm pottery and possibly by as yet unidentified potteries on the edge of the extensive Conisbrough deer park (Cumberpatch 2013; Cumberpatch and Young unpublished).

In Doncaster, where the site of the castle is, in large part, currently occupied by St George's Church, there is little direct evidence of the use of pottery, but it is possible to argue (on the basis of the distribution of sherds) that the earliest post-Conquest potteries in the town were established specifically to serve the needs of the garrison and only subsequently expanded to serve a local population which had traditionally been largely aceramic (Cumberpatch in prep., 2).

The high proportion of Tees Valley ware in the assemblage considered in this report might suggest that potters working in this tradition were located in the vicinity of Richmond. This is a possibility that is of considerable interest, given that at present we know nothing of the locations at which this important regional type of pottery was manufactured or how it achieved such an apparently wide distribution (Didsbury 2010, Figure 8.10). Richmond's location, on the western edge of the distribution zone, together with the high proportions of the type on rural sites such as Thornton-le-Street (Cumberpatch 2018b; 2019b) on the southern edge of the zone, may even suggest that the association with the Tees Valley is less reliable than might be assumed. Only further research will clarify the position.

6. ANIMAL BONE AND SHELL

Marina Chorro-Giner

6.1. Introduction

Animal remains comprising mammals, birds, fish and marine molluscs (1587 fragments weighing 9.914kg) were recovered via hand collection during the 2021 archaeological excavation at Richmond Castle, North Yorkshire. This assessment includes quantification of the assemblage, identification at species level where possible and an assessment of significance.

6.2. Methods

The animal remains were identified to element, side and to as low a taxonomic level as possible using the author's reference collection and published and online identification guides (Cohen and Serjeantson 1996; Hillson 2003; 2005; Johnson 2015). Quantification for mammal remains used the diagnostic zone method as presented by Dobney and Rielly (1988) and for birds the method presented by Cohen and Serjeantson (1996). A taphonomic assessment of each fragment was undertaken, recording the presence and absence of cut and chop marks, burning and calcination, any evidence for animal activity (canid or rodent gnawing), and surface preservation; any other surface modifications of note were also recorded. At this stage, no attempt was made to sex any of the remains, or to measure any elements. Sheep (*Ovis aries*) and goat (*Capra hircus*) and equid (*Equus* sp. horse/donkey/mule) distinctions were also not considered. Fragments of bones that could be identified to element but not any specific species were grouped as far as possible using size and class or order categories.

The fish remains were identified to element, side and to as low a taxonomic level as possible using the author's reference collection and identification guides (Archaeological Fish Resource; Camphuysen and Henderson 2017; Nabone Fish; Osteobase; Wheeler and Jones 1989). Quantification used the diagnostic zone method as presented by Barrett (2001) and Harland *et al*. (2003). Remains of cod family fish were allocated to size categories as described by Cerón-Carrasco (2004).

The mollusc remains were identified to side and to as low a taxonomic level as possible using the Author's reference collection and published and online identification guides (Hayward and Ryland 1995). Quantification used a diagnostic zone method.

Results were recorded in an electronic *pro forma* in Microsoft Excel.

This assessment has been undertaken in line with published standards and guidelines (Baker and Worley 2019; CIfA 2014), a project design (Brightman *et al*. 2021) and with reference to the *Yorkshire Archaeological Research Framework's Resource Assessment* (Roskams and Whyman 2005) and *Research Agenda* (Roskams and Whyman 2007).

6.3. Results

Vertebrate (1558 fragments) and marine mollusc remains (29 fragments) were recovered via hand collection from Trenches 1, 2, 3 and 4 excavated at Richmond Castle in 2021 (see Appendix 4 for summary data tables).

The few terrestrial molluscs specimens recovered represented ubiquitous snail species that did not contribute to the understanding of past environmental conditions at the site, and as such they are not discussed further.

6.3.1. Trench 1

The majority of bones in the assemblage were recovered from Trench 1: a total of 853 vertebrate and 8 mollusc fragments comprising 54.3% of the total of the assemblage by count.

The vertebrate remains represented a diverse range of domestic and wild mammals, with a small number of bird and fish taxa. Identified mammals included equid (horse/donkey/mule – *Equus* sp.), domestic cattle (*Bos taurus*), red deer (*Cervus elaphus*), fallow deer (*Dama dama*), sheep/goat (*Ovis aries/Capra hircus*), domestic pig (*Sus domesticus*) and European rabbit (*Oryctolagus cuniculus*). Regarding birds, chicken (*Gallus gallus domesticus*), pheasant (*Phasianus colchicus*) and goose (*Anser anser*) were recorded in this trench and the only fish recorded was Atlantic cod (*Gadus morhua*). Additional fish remains were identified within size-based family (Gadidae) or order (Gadiformes) groups and bird remains to order (Galliformes/Anseriformes). All three class groups (mammal, bird and fish) included specimens that could only be identified to size-based clade (ungulate) or class (mammal/bird/fish) groups.

Marine mollusc taxa recovered from Trench 1 included edible/European flat oyster (*Ostrea edulis*) and mussel (*Mytilus* sp.), the latter being the most common species of marine mollusc recovered from this Trench.

6.3.2. Trench 2

Only 378 vertebrate fragments were recovered from Trench 2 (23.8% of the whole assemblage). The identified species vary somewhat from Trench 1, with fallow deer being absent and substituted by the presence of roe deer (*Capreolus capreolus*). Similarly, European rabbit is absent from the Trench 2 assemblage, but remains of European hare were found in its place (*Lepus europaeus*). In the case of birds, geese are absent from this trench, but the only remains of common crane (*Grus grus*) from the site were found. Some bird remains were identified to order (Galliformes) group and both mammals and birds included specimens that could only be identi-

fied to size-based clade (ungulate) or class (mammal/bird) groups. No fish or marine molluscs were recovered from this Trench.

6.3.3. Trench 3

A total of 266 vertebrate fragments and seven mollusc fragments were recovered from Trench 3, representing 17.2% of the assemblage by count. The represented species vary again, being the first trench in which red deer, fallow deer and roe deer are represented together. European hare is present in this Trench while European rabbit is absent. The only domestic cat (*Felis catus*) remains from the site were recovered from Trench 3. Pig remains are represented in much lower quantities compared with Trenches 1 and 2. For birds, only chicken and duck family birds were represented. Some bird remains were identified to order (Galliformes) group and mammals included specimens that could only be identified to size-based clade (ungulate) or class (mammal) groups. Seven fragments of edible/European flat oyster were recovered from three contexts (see Appendix 4). No fish were recovered from this trench.

6.3.4. Trench 4

The bone assemblage from Trench 4 was the smallest with only 52 vertebrate and 13 mollusc fragments, which in total represented 4.1% of the assemblage. Mammal remains included cattle, sheep/goat while bird and fish remains present included pheasant, Eurasian woodcock (*Scolopax rusticola*) and Atlantic cod. Some mammal bones could only be identified within size-base groups. The mollusc remains were the most varied of the whole assemblage with periwinkle (*Littorina littorea*) and flat periwinkle (*Littorina obtusata*) present together with the edible/European flat oyster.

Most of the material recovered from this Trench, however, comes from the topsoil, subsoil and modern layers, so is of limited archaeological significance.

6.4. Taphonomic assessment – Vertebrate remains

6.4.1. Bone Surface Preservation and Fragmentation

Bone surface preservation varied throughout the assemblage from 'excellent' to 'very poor' (categories 1–5). Most of the specimens displayed 'moderate' surface preservation (54.0% by count, n=842), closely followed by those displaying 'poor' surface preservation (44.6% by count, n=695). Fragmentation was high throughout the assemblage with many partial bones and teeth recovered and some re-fitting fragments of single specimens.

6.4.2. Butchery

Evidence for butchery in the form of fine cut marks, more substantial chop marks and saw marks was recorded on 81 specimens throughout the assemblage and were found in mammal, bird and fish. The majority of these butchery marks were cuts (61.7%, n=50), followed by chops (32.1%, n=26). Four bones displayed saw marks (fallow deer, cattle, sheep/goat and medium mammal elements) while one large mammal rib displayed evidenced of both cut and saw marks. These bones, apart from a cattle horncore that could imply bone working, indicate carcass processing using a saw—an 18th-century or later animal butchery techniques (e.g., Albarella 2003, 74; Cameron *et al*. 2019). Another large mammal long bone shaft had been worked. Area-wide evidence for carcass processing was moderate.

6.4.3. Animal Interaction

Evidence for carnivore activity was observed on 59 specimens. The gnawed remains included equid, cattle, pig and sheep/goat, some of which also had cut and chop marks. Rodent activity was observed on three specimens of medium and medium-large mammal bones. Gnawing activity provides evidence for the presence of carnivores, likely domestic dogs and/or foxes, as well as rodents, such as rats, at the site and that animal remains/carcasses were accessible to these animals at some point after their deposition.

6.4.4. Pathology

Skeletal abnormalities possibly resulting from disease, injury or age were recorded in five instances, in four contexts, (see Appendix 4). The remains from context 205 probably represent the same individual since the pathology is consistently displayed on the same side and it would be located both on the front and hind legs.

6.4.5. Burning and Calcination

Burnt bone was recovered from seven contexts, 15 fragments in total. The burnt remains included large and medium mammal.

6.4.6. Potential for Measurements

In total, 79 mammal and four bird bones were suitably complete to allow measurement for size estimation. Measurable elements included equid, cattle, pig, sheep/goat, red deer, fallow deer, roe deer, hare and rabbit, domestic fowl and pheasant.

6.4.7. Potential for Ageing and Sexing

Bone fusion data for estimation of age at death was recorded for one or both epiphyses of 135 specimens. Five mandibles, comprising one cattle, one sheep/goat, three pigs, and two pig loose teeth, were suitable for providing age at death data. Pig canine teeth from contexts 104, 105, 201, 204 and 210 were consistent with male individuals, two from context 205 were consistent with male individuals; two additional pig teeth were suitable for establishing sex. No other remains were suitable for identifying sex.

Regarding birds, six specimens were consistent with juvenile individuals, all of them consistent with Galliformes, which probably represented young chicken. Eight other bird bones were consistent with adults of different species including chicken, pheasant and goose.

6.5. Taphonomic assessment – Mollusc remains

6.5.1. Shell Surface Preservation and Fragmentation

Shell surface preservation varied throughout the assemblage from 'good' to 'poor' (categories 2–4). Most of the specimens displayed 'poor' surface preservation (65.5% by count, n=19), followed by those displaying 'good' surface preservation (27.6% by count, n=8) most of which came from the topsoil of Trench 4. Fragmentation was high throughout the assemblage with many partial shells recovered and some re-fitting fragments of single specimens. No infestations (e.g., sponge or annelid worms) were recorded on the shells.

6.5.2. Burning and Calcination

No burnt and/or calcined shell was recovered during the excavations at Richmond Castle.

6.5.3. Potential for Measurements

In total, eight shells were suitably complete to allow measurement for size estimation. Measurable species included periwinkle, flat periwinkle and European flat oyster.

6.6. Discussion

Nearby contemporary castles included Ravensworth, Bowes, Scargill, Raby and Barnard Castle to the north in what today is County Durham; Whorlton, Skelton, Mulgrave, Dandby Ayton and Scarborough to the east; Hornby, Knaresborough and Spofforth to the south; and Bolton, Middleham and Skipton to the west. Other relatively close castles with similar chronologies that have been previously studied include Pontefract (Roberts 2002; Richardson 2002; Burgess 2019; Russ and Maccarinelli 2022) and Sandal Castle (Mayes and Butler 1983; Butler 1991) in West Yorkshire and Sheffield Castle (Windle 2022) in South Yorkshire.

As a total assemblage, the remains provide evidence for a diet that included the main domesticates expected for northern England from later prehistoric to present times (Baker and Worley 2019, 3): beef, pork, lamb/mutton/goat, goose and chicken. Equids would have been kept for traction and/or transportation, cattle for beef, traction, milk and/or leather, pigs for meat, sheep/goat for lamb/mutton, milk and/or wool, and geese and chickens for meat, feathers and/or eggs. These taxa are common features within the assemblages of animal bones recovered from sites within the region and throughout Britain, being six of the main domestic livestock animals. Remains of a domestic cat were also found representing probably a service animal (pest control) and/or pet. The absence of dog remains on the site is noteworthy since dogs are expected on high status sites related to their use as hunting dogs and/or companions. This could be due to these animals being disposed in a different way or specific area of the castle that was not excavated in 2021.

However, wild animals also played an important role in Richmond Castle. Red, fallow and roe deer are the most common species, with red deer being the fourth most represented species in the assemblage as a whole. The European hare and European rabbit remains lack cutmarks, which makes their interpretation difficult since they could represent natural accumulations or intrusions in the archaeological record rather than food waste. Hare was hunted in part for its meat and fur but also to keep hounds in shape for hunting deer (Thomas 2005), while rabbits were usually bred in enclosed warrens mainly for their fur and meat and were considered a luxury food source compared to hare (Bailey 1988). It is likely that at least some of the hare and rabbit remains were natural accumulations or intrusions since many were recovered from subsoil or very modern layers within the archaeological stratigraphy and most displayed 'excellent' bone surface preservation.

Pigs (and/or wild boars, since the distinction is very difficult) are the most common species throughout the assemblage, which is consistent with the hunting permissions and access to woodland that the upper classes living in and visiting castles would have had. This is seen at castles all over England, from the South (Launceston Castle, Albarella and Davies 1996) to the Midlands (Dudley Castle, Thomas 2005), all the way up to the North (Barnard Castle, Jones et al. 1985). Moreover, there is some evidence of the presence of suckling pigs within the assemblage in the form of unfused pelvis bones, which fuse at 12 months; this was another meal reserved for the upper class and, as such, an indicator of high-status dining. After pork, the consumption of lamb/mutton/goat and beef was most common, though the evidence for lamb/mutton/goat consumption was more frequent at Richmond than at other castle sites. The presence of deer remains, which included the native red and roe deer, but also the fallow deer, which was introduced to Britain in the late 11th century, indicates the consumption of venison, and provides further evidence for high-status hunting and dining activities. Moreover, anatomic representation of deer remains as well as the presence of butchery marks is consistent with the consumption of haunches, a high-meat-bearing and quality cut.

Only a few wild bird species were present in the Richmond Castle assemblage, with crane and pheasant being the most common and one bone from a Eurasian woodcock. It was not possible to distinguish wild from domestic goose but is it possible that some of the goose and Anseriformes remains represent wild forms of the bird (either Anser or Branta). Still, the paucity of wild bird remains is interesting as a more frequent and more diverse range of wild birds is typical for high status sites during the medieval period, including castles (Albarella & Thomas, 2002; Russ and Maccarinelli 2022). The presence of young galliform bones could also indicate high-status dining at the site since the consumption of chicken meat from young domestic fowl was limited to those of wealth and status.

Atlantic cod was the only identified species within the assemblage of fish remains from Richmond Castle, which included the remains of medium- and large-sized fish. Based on findings at other medieval castles, it is likely that a diverse range of fish species were consumed at Richmond Castle over its period of occupation, but that the remains are bi-

ased towards larger specimens as a result of recovery method (hand-collection). It is during the medieval period that the remains of large cod (Atlantic cod and ling) begin to be recovered in large numbers at archaeological sites, a result of the preserved cod (stockfish) trade and improved trade connections for the transportation of both dried and fresh fish (e.g., Barrett and Orton 2016). It is sometimes possible to identify the use of stockfish at a site based on the species of fish identified, elements present and the presence and location of butchery marks. Sites using stockfish are expected to have abundant vertebrae, especially those from the caudal part of the fish, very few/no cranial elements, and cleithra fragments and vertebra with cut-marks (Locker 2000; Barrett et al. 2004). At Richmond Castle, though, it appears that this is not the case since cranial elements are much better represented than vertebrae, which indicates the provision of fresh, whole or gutted fish to the site. The provision of fresh fish to a location so far inland would have incurred significant cost, a such the presence of head bones at the site suggests they represent food waste from high-status dining. However, the use of stockfish in addition to fresh fish cannot be ruled out and is likely to have been the case.

The remains of marine molluscs represent a small number of species that are common to the seas around the British Isles in recent and historic times (e.g., Hayward and Ryland 1995). Many of the species present are popular food items, this is especially true for mussel and European flat oyster. The presence of these remains demonstrates trade connections between this inland location and the coast, which lies *c*. 45 km and 60 km to the east and west, respectively. Other species present are sometimes collected for human consumption, but also used as fishing bait, such as periwinkles (Tupper 1970); however, the bait interpretation is extremely unlikely given the location of the site so far away from the closest shoreline. While these shells could represent food waste, there is also a chance that they represent a collection brought to the castle after visit(s) to the seaside, this would explain the presence of flat winkles, which are not usually considered a food species. While some of the mollusc remains are from medieval contexts, the recovery of many of the specimens from topsoil, subsoil and/or plough soils prevents any specific comment on the role of shellfish at the site.

The animal remains from Richmond Castle are consistent with those expected for food waste at high-status dwellings during the later medieval and early post-medieval period, with the exception of the small number of equid and domestic cat remains that most likely represent service animals and/or pets and are, again, consistent with the period and site type. Those dining in the castle were served a menu that often included pork as well as lamb/mutton/goat, beef, venison, goose, chicken and wild birds including crane and woodcock as well as fresh fish and shellfish from the coast. Suckling pig and meat from young Galliformes (likely domestic fowl/chicken) were also consumed.

7. CERAMIC AND STONE BUILDING MATERIALS

Dr David G. Griffiths

7.1. Introduction

This report presents the results of the assessment of a range of ceramic and stone building materials (see Appendix 5 for tables). In total, 51 fragments of ceramic and stone building material weighing 799.6 grams were recovered. All material was recovered via hand collection during archaeological excavations at Richmond Castle, North Yorkshire in 2021. Material considered in this report was recovered from four trenches (Trenches 1 to 4). Assessment of the ceramic (hereafter, CBM) and stone building material includes quantification by count and weight, identification and date range, where possible, and discussion of the findings in their regional and chronological context, and an assessment of significance.

7.2. Methods

All material was sorted by context, period of production, material and type (e.g., ceramic roof tile, plaster, slate roof tile etc.) and quantified by count and weight. The data were grouped by context, and a basic catalogue of all material is provided in Appendix 5. Ceramic building material was assessed following the Minimum Standards for Recovery, Curation, Analysis, and Publication for Ceramic Building Material (Archaeological Ceramic Building Materials Group 2002) and Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials (Chartered Institute for Archaeologists 2014); classification is based on McComish (2015). The results were considered with reference to the Yorkshire Archaeological Research Framework's Resource Assessment (Roskams and Whyman 2005) and Research Agenda (Roskams and Whyman 2007).

Period	Material	Type	Count	Weight
Medieval/Post-medieval	Ceramic	Tile	1	6
		Sub-total	*1*	*6*
Post-medieval	Ceramic	Brick	2	112.1
		Sub-total	*2*	*112.1*
Post-medieval/Modern	Ceramic	Brick/Tile	4	51.8
		Tile	1	77.8
		Sub-total	*5*	*129.6*
Modern	Ceramic	Brick	1	27.5
		Sub-total	*1*	*27.5*
Unknown	Ceramic	Fired Clay	3	13.8
		Limestone-natural?	1	17.4
		Mortar	13	250.2
		Plain wall plaster	1	6.5
		Tile	1	23.2
		Undiagnostic	19	46.9
		Mortar/Concrete	1	4.6
	Stone	Stone-worked	2	156.8
		Stone-natural?	1	5
		Sub-total	*42*	*524.4*
		Grand Total	51	799.6

7.3. Results

The ceramic and stone building material assemblage considered in this report consisted of 51 fragments weighing 799.6 grams, which included 48 fragments in ceramic and 3 fragments in stone. All material was recovered from four trenches, potentially dating from the medieval period to the 20th century (see Appendix 5 for data tables).

7.3.1. Medieval/Post-Medieval Periods

In total, three ceramic fragments were recovered dating to the medieval/post-medieval periods; these included one fragment of tile and two fragments of hand-made brick.

7.3.2. Post-Medieval/Modern Periods

In total, four fragments of ceramic brick/tile and one tile were recovered from this period.

7.3.3. Modern Period

One fragment of brick was recovered from this period.

7.3.4. Unknown Period

In total, 42 fragments of unknown date were recovered. The material included ceramic tile, fired clay, mortar, mortar/concrete, plain wall plaster, limestone (probably natural) and undiagnostic fragments. The mortar fragments were predominantly lime-rich, and may be of relatively early date; however, based on assessment of the material alone, dating remains uncertain. In addition, three fragments in stone were recovered, these included two worked (possibly fragments of building blocks from a structure, as one fragment had mortar attached, and one had a small fragment of brick or tile adhered to its surface), and one fragment which showed no evidence it had been worked (i.e., natural).

7.4. Summary and Dating

This was a relatively small assemblage (51 fragments), dating from the medieval to Modern periods. The bulk of the assemblage was of unknown date. None of the items assessed were clearly medieval in date; however, dating from other artefacts recovered (e.g., pottery and coins), when considered alongside stratigraphic relationships, may help refine the dates of some of these items.

8. CLAY TOBACCO PIPE

Dr Elizabeth Foulds, MCIfA

8.1. Introduction

The assemblage consisted of 36 fragments of clay pipe, which were hand collected over the course of the 2021 excavations. They were not closely datable, and some could only generally be attributed to the 19th and 20th centuries.

8.2. Method

The finds and all pipe data were recorded in a Microsoft Access database for the assessment report following the general finds reporting guidance and clay pipe standards (English Heritage 2008; Chartered Institute for Archaeologists (CIfA) 2014; Higgins 2017). Following the standards set out in Higgins (2017) all fragments have been recorded using a pro forma specific to clay pipe and include manufacturing processes (e.g., milling, rim finish, mouthpiece finish), maker's marks and decoration. Bore measurements are recorded for bowls where present, but generally not for stem fragments unless the context is of particular interest. Throughout the report, reference to specific fragments is made using the unique 'ID' number, which corresponds to the accompanying data spreadsheet (see summary in Appendix 6).

8.3. Results

In total, 36 fragments (76.4g) were submitted for assessment. There were five mouthpiece fragments, but no bowl fragments were recovered. The assemblage was recovered across all trenches, but most were found in Trench 1 and Trench 3. All fragments came from the upper levels of the trenches, such as the topsoil, sub-soil, or otherwise made ground.

Material	Trench 1	Trench 2	Trench 3	Trench 4	Total
Mouthpiece	-	2	2	1	5
Stem	13	5	12	1	31
TOTAL	13	7	14	2	36

8.3.1. Mouthpiece fragments

There were five examples of clay pipe mouthpieces. This included four nipple type mouthpieces (ID 6, 11,12, 15), which began to be used around 1840 onwards, and a single flattened mouthpiece (ID 7) that can be broadly dated to the 19th century onwards.

8.3.2. Stems

Of the 31 stem fragments, the majority were plain and had no diagnostic features. ID 78 retained a spur but was not otherwise marked or decorated. ID 102 also retained a spur and was marked with 'O' on both sides of the spur.

8.4. Discussion

Clay pipe fragments are a common find in areas where post-medieval activity took place. It can be a useful tool for dating archaeological contexts, as it is a key indicator for post-medieval activity (i.e., smoking tobacco grew in popularity from the 16th century onwards). Dateable fragments within the assemblage suggest a mid-19th- or 20th-century date. The small size of the assemblage and context of their discovery prohibits further interpretation, other than that it reflects general post-medieval activity at the trench locations.

9. VESSEL AND WINDOW GLASS

Dr Elizabeth Foulds, MCIfA

9.1. Introduction

The assemblage consisted of 186 fragments (708.47g) of glass, which were hand collected over the course of the excavations. Most were generally attributed to the late post-medieval and modern periods, but there were a small number of fragments that may have been medieval. This report includes identification of all artefacts where possible, discussion of findings and an assessment of significance.

9.2. Method

The finds were recorded in a Microsoft Access database. The specialist finds recording and reporting was completed in accordance with the national finds standards and guidance (English Heritage 2008, CIfA 2014; CIfA 2021). All fragments have been recorded using a data table specific to vessel and window glass. All objects and fragments were described, counted, weighed and recorded. Where possible, all finds were identified by material, object type and form using the FISH Thesaurus for materials, archaeological objects, and periods. References are made in text to 'ID' numbers, which correspond to the data supplied in an accompanying spreadsheet (see Appendix 7 for the data summary). Dates given in the summary should be read as 'circa'.

9.3. Results

In total, 186 fragments (708.47g) were submitted for assessment. The assemblage mainly comprised vessel fragments, but there was also a small number of window glass fragments. In general, the assemblage was in good condition with the majority exhibiting none or very little surface weathering (defined as light surface iridescence or flaking). This is generally consistent with glass of relatively recent date. About 4% of the assemblage was described as having moderate weathering and another 4% as having heavy weathering. Where artefacts were indicative of date, they were broadly post-medieval or modern, but there was also a small number of possible medieval fragments.

Category	Fragment count	Weight (g)
Vessel	122	571.27
Window	55	124.7
Uncertain/other	9	12.5
TOTAL	186	708.47

9.4. Assemblage Summary

9.4.1. Vessel glass

The majority of the assemblage was made up of fragments of vessel glass. Most fragments derived from bottles, which included examples from wine bottles and soda bottles. The assemblage was mostly made up of fragments of green or light green glass, but there were also examples of colourless and translucent brown glass in the assemblage. Within the bottle assemblage there were definite examples of more recent bottles, such as the Codd bottle fragment (ID 37) and crown cap style rims (ID 58), but there were possible fragments from a medieval or early post-medieval bottle (ID 92).

Other than bottles, there was one fragment of a jar rim with a threaded neck (ID 132) and three rim fragments from a colourless vessel that was likely to be a drinking vessel, but the exact form could not be determined (ID 14).

Functional Category	Form	Fragment Count	Weight(g)
Tableware	Drinking vessel	3	2.5
Storage	Bottle	42	369.1
	Jar	1	4.6
	Jar/bottle	2	7.6
Uncertain		73	175.3
Total		121	559.1

9.4.2. Window glass

There were 55 fragments of window glass in total, most of which were recovered from Trench 1. The fragments ranged in thickness from 1.3 mm to 6.0 mm. Most fragments were colourless or light green with very little or no weathering. These were likely relatively recent in date and likely dated to the post-medieval and modern periods. There were a further four fragments that were very heavily weathered and may have been medieval in date (ID 111, ID 112).

9.5. Assemblage by trench

Glass was recovered across all four trenches, but most was found in Trench 1 (Table 3).

9.5.1. Trench 1

The majority of the glass from Trench 1 was post-medieval or modern in date, but there were two possible fragments of medieval glass (ID 92, ID 111) from a long-term accumulation deposit (105) post-dating the medieval structural fabric. One (ID 92) was a possible fragment of heavily weathered (possi-

ble potash) glass bottle and the other (ID 111) was a fragment of heavily weathered possible window glass.

9.5.2. Trench 2

All fragments of glass from Trench 2 were either later post-medieval or modern and were collected from the topsoil (200) and subsoil (201) layers.

9.5.3. Trench 3

The majority of the glass fragments from Trench 3 were recovered from the topsoil and turf (300) and consisted of bottle and window fragments. Most remaining fragments came from deposits thought to be more recent, although some contexts (such as 303) could have accumulated over the course of the 15th to 19th centuries. Four fragments are worth highlighting here: ID 109, which was a very heavily weathered vessel fragment and ID 112, which consisted of three heavily weathered orange fragments of window glass. Based on the extent of the weathering, it is possible that these date to the medieval period, or perhaps the early post-medieval period.

9.5.4. Trench 4

This final trench was not excavated in full but did produce a sizable assemblage of glass. Fragments consisted of vessel glass and window glass, most of which were likely either post-medieval or modern. Most fragments also came from the topsoil and turf (400). The assemblage did include a heavily weathered fragment of vessel glass (ID 17) that could have been medieval, but it lacked any further diagnostic elements to date it for certain.

	Trench				
Category	1	2	3	4	TOTAL
Vessel	62	7	25	29	122
Window	35	1	6	13	55
Other	2	-	5	2	9
TOTAL	99	8	36	42	186

9.6. Discussion

Glass has a long history in Britain, with the earliest glass objects dating to the Bronze and Iron Ages. The Roman period saw the introduction of vessel glass and flat glass panes used for windows. Glass continued in use in the early medieval period and Middle Ages. The glass industry grew extensively in the post-medieval period and after the mechanisation of glass working in the later 19th and 20th centuries.

Glass fragments can be common finds on archaeological excavations, especially reflecting the post-medieval and modern activity. The assemblage recorded from the excavations at Richmond Castle heavily reflected the use of the castle in the later post-medieval and modern periods. While most fragments reflected relatively recent activity, there were a small number of vessel and window glass fragments that may be medieval in origin, but lacking clear defining characteristics and features, this must be taken cautiously.

10. COINS AND TOKENS

Separate to the assessment of an assemblage of mixed artefacts (see below), assessment was also undertaken of two specific metal coins or tokens recovered through the course of the excavations, identified as being of potentially high significance during the on-site work and retained separately from the rest of the metal objects within the small finds assemblage.

All artefacts were carefully cleaned with soft tools and no liquids, boxed with foam and silica packets and assigned individual small find numbers. The boxes were marked with site code, small find number, context number, trench number and artefact type. Each artefact was examined on a clean working surface in natural light by both eye and using a x10 and x20 magnification hand lens. Metrical data relevant to the artefact type were captured using digital calipers with plastic tines, accurate to 1/10 mm. Weight was measured with a digital balance accurate to 0.1g. Each artefact was logged into a spreadsheet as it was examined. Given the small number of artefacts, each is discussed separately rather than examining wider patterns, distribution, materials and manufacture techniques as a whole.

The earliest coin comprised three conjoined sections of a complete silver penny of William I recovered from the medieval flooring or use deposit in Trench 2 (205). It is of a type known as a 'PAXS' penny from the inscription of the four letters set within annulets and separated by a central croix patée on the reverse. The obverse shows a face-on depiction of William the Conqueror, crowned and holding a sceptre surmounted by a cross in his left hand. Unfortunately, the reverse legend is too corroded to accurately identify a mint or moneyer. The PAXS appellation is a form of the latin *pax*, meaning 'peace', and the minting of such coins follows the tradition of existing 11th-century coinage issued by Edward the Confessor and Harold Godwinson, thought to represent a statement of stability under the issuer's sovereignty. The known examples minted for William I are commonly dated to the end of the Conqueror's reign in the 1080s, after the initial rebellions and unrest against his rule had settled somewhat, most notably through the euphemistically titled 'Harrying of the North'. Given the coin shows no sign of clipping, it is likely that it was in circulation and lost relatively shortly after its minting in the late 11th century, and so represents activity in the earliest decades after the Castle's construction.

The second piece assessed is a corroded and possibly clipped copper alloy jetton recovered from the subsoil deposits in Trench 3 (301). The Jetton is a 'Moor's Head' type, featuring a stylised wreathed 'Moor's Head' facing right on the obverse and an arcuate cross with central fleur de lys and fleur de lys terminals on the reverse. It was struck in France and is commonly dated to around the mid-14th century. Jettons were most commonly used as counters or tokens for account keeping and counting boards, though in some cases they may also have been used as ad hoc currency given their intrinsic metal value.

Figure 9. Obverse of the William I PAXS penny showing the face of the Conqueror

Figure 10. (centre) Obverse of the 14th-century French jetton

11. MISCELLANEOUS SMALL FINDS

Dr Elizabeth Foulds, MCIfA

11.1. Introduction

An assemblage of metalwork, stone and other material was recovered during the excavations at Richmond Castle in 2021. Previous excavations at the site recovered a range of artefacts including medieval coins, tokens and jettons, architectural stonework, medieval iron tools and keys, iron bucket fittings, a complete lead bucket, a 9th- to 11th-century bone pin and strap-end mould (Brightman 2021, 9).

The assemblage consisted of 273 fragments (4,858.69g) of finds, which were hand collected over the course of the excavations. Most were generally attributed to the late post-medieval and modern periods, but there were a small number of objects that may have been medieval. This report includes identification of all artefacts where possible, discussion of findings, an assessment of significance and recommendations for further work.

11.2. Method

The finds were recorded in a Microsoft Access database. Where possible, all finds were identified by material and object type using the FISH Thesaurus for materials, archaeological objects and periods. All objects and fragments were described, counted, weighed and recorded in a single data table (see Appendix 8 for summary). Copper-alloy and lead objects were measured. Iron objects were only measured where identifiable or where measurements were needed to distinguish between artefacts stored in the same bag. Iron nail count is based on extant nail heads, which is reported separately from the assemblage fragment count. All other nail fragments were only counted and weighed. Complete nail length was recorded where possible.

The specialist finds recording and reporting was completed in accordance with the national finds standards and guidance (English Heritage 2008, CIfA 2014; CIfA 2021). The report was prepared with a post-excavation specialist information report, which included a context list (Brightman 2021). References are made in text to 'ID' numbers, which correspond to the data given in summary in Appendix 8. Dates given in the summary should be read as 'circa'.

11.3. Results

In total, 273 fragments (4,858.69g) were hand collected during the excavations. There were an additional 36 fragments (284.0g) of stone that exhibited no evidence for use that were submitted for assessment that are not considered further or included in the tables. In general, the assemblage was in excellent or good condition with 39% described as being in fair condition and 13% in poor condition. Where artefacts were indicative of date, they were primarily post-medieval or modern, but there was one prehistoric object and three medieval objects.

Category	Fragment count	Weight (g)
Aluminium	4	2.7
Copper alloy	13	88.3
Iron	103	1221.1
Lead	40	726.3
Uncertain metal	3	9.6
Bone	1	0.19
Glass	4	8.3
Stone	51	2706.5
Other	49	95.7
TOTAL	273	4,858.69

11.4. Assemblage summary

11.4.1. Metal

Metal objects made up the majority of the assemblage (62%). This included a range of different material types, including iron, lead, copper alloy and aluminium, as well as unidentified metal material. Out of all metal materials, objects made from iron were the most numerous. There were 85 fragments of nails or possible nails included in the assemblage, but only 40 nails represented by nail heads. Complete or near complete nails ranged from 29.4 mm to 103.0 mm in length. The nail assemblage included more recent wire nails (1875+), as well as earlier square cross-section nails. Three of the nails (ID 10, 109, 125) were horseshoe nails of a distinctive medieval 'fiddle key' type. This was a distinctive type of medieval nail used on horseshoes (Clark 2004; Goodall 2011). Other iron objects included a modern hair ornament (ID 139), a fitting (ID 156), a possible horseshoe (ID 178), a peg (ID 103) and a tube (ID 138).

The assemblage also included 60 non-ferrous objects. Of these, 13 were made from copper alloy. This included two coins: a three pence coin from 1960 (ID 4) and a one pound coin from 1983 (ID 3). Other objects covered a range of different categories, including ammunition, dress, and utilitarian objects. All objects were considered to be post-medieval or modern in date. The assemblage included an 18th-century shoe buckle fragment (ID 5).

The assemblage also included 40 lead objects. While most of these were rough strip or melted fragments, there were 28 fragments of window came.

11.4.2. Bone

Bone objects were limited to a small unidentifiable pierced disc with concentric circles on one face (ID 14).

11.4.3. Glass

There were four glass objects, three of which were glass beads. Two of the beads were made from black glass and were globular in shape (ID 7, ID 8). A third bead was made from translucent blue glass and was spherical in shape with ribs. The fourth glass object was a cat's eye marble (ID 1). These are all late post-medieval or modern in date.

11.4.4. Stone

There were 50 fragments of stone in the assemblage. The earliest is the flint tool, possibly a piercer or arrowhead (ID 28). Others include four fragments of roof tile (ID 20, 21, 23, 29), that may be medieval in date. There were also 10 fragments of slate pencil, that are generally considered to be post-medieval.

11.4.5. Other materials

There were a small number of objects of other materials. Many of these were plastic or rubber and therefore date to the modern period. The assemblage included a bottle cork with sealing wax on one end (ID 12). It is not clear which period this cork dates to, it could be post-medieval or modern. There were 11 fragments of industrial by-products, such as slag.

11.5. Assemblage by trench

Finds were recovered across all four excavated trenches, but most were recovered from Trench 3 and Trench 1.

11.5.1. Trench 1

Artefacts from this trench contained a mix of medieval and post-medieval finds. Objects from medieval contexts comprised nails and possible nails, as well as fragments of charcoal and coal. Two horseshoe nails that were characteristic of the medieval period came from this trench, but from mid-20th-century contexts (ID 109, ID 10).

11.5.2. Trench 2

Most of the finds from this trench were recovered from topsoil and subsoil contexts (200 and 201). This included several objects of more recent date, such as ammunition (ID 69, ID 141), a wire nail (ID 137) and a hair ornament (ID 139), as well as the 18th-century shoe buckle fragment (ID 5). Finds from the deposit (205) identified as possibly being a floor or use deposit potentially related to an area used for butchery were very limited. There were five fragments of unidentifiable iron from this context (ID 147, ID 148).

11.5.3. Trench 3

From deposits sitting on top of the paving (308 and 312) came a number of finds. These were primarily iron fragments that could be identified as nails or possible nails. There was also a partial stone roof tile with an intact peg hole (ID 20). Other finds from this trench came from accumulation deposits (303), levelling deposits (302), fill of robber cuts (301) and topsoil/turf (300). These included a range of different materials and objects, such as various buttons, glass beads, and roof tiles. The fill (302) of the robber cut (304) in particular contained a large number of window came fragments compared to other contexts.

11.5.4. Trench 4

All finds from this trench came from modern contexts, including the topsoil (400) and an area of burning underneath the topsoil (401). Datable finds included the three pence coin from 1960 (ID 4) and a one pound coin from 1983 (ID 3). Other finds include a rifle cartridge (ID 68), the bottle cork (ID 12), the flint tool or arrowhead (ID 28), as well as various fragments of plastic, nails, aluminium foil, coal, and charcoal. A single stone rooftile fragment (ID 23) may be medieval in date.

	Trench				
Category	1	2	3	4	TOTAL
Aluminium	-	-	-	4	4
Copper alloy	4	2	4	3	13
Iron	55	15	32	6	108
Lead	2	-	37	1	40
Uncertain metal	1	1	-	1	3
Bone	-	-	1	-	1
Glass	2	-	2	-	4
Stone	15	10	15	11	51
Other	20	-	10	19	49
TOTAL	99	28	101	45	273

11.6. Discussion

The assemblage included a broad range of finds from the activity at Richmond Castle. Artefacts from contexts thought to be medieval in date were very limited and mainly consisted of structural components, such as nails (and possible nail fragments) as well as roof tile fragments. A large proportion of the assemblage came from later contexts associated with the Victorian period, use of the castle by the military, consolidation works by the Ministry of Works and modern activity as a visitor attraction. This is similar to the nature of the finds from previous excavations (Brightman 2021, 9). Although found in later contexts, further evidence for medieval buildings at the castle came from additional examples of nails, roof tile fragments and sections of window came. The lead assemblage, in particular the window came, is somewhat at odds with the noted absence of lead finds from previous excavations (other than the complete lead bucket), which was interpreted as the result of the removal of lead by the Crown in the 16th century (Brightman 2021, 9).

12. BOTANICAL MACROFOSSILS

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12.1. Introduction

This report presents the palaeoenvironmental assessment results for two bulk samples from the Richmond Castle excavations. One is from a sandy clay floor (205) with a provisional 11th- to 12th-century date. The second is a charcoal-rich fill (410) of shallow pit feature [F411] that may have been a hearth or fire pit and is provisionally dated to the 11th to 15th century. The objective of the scheme of works was to assess the palaeoenvironmental potential of the samples, establish the presence of suitable radiocarbon dating material and provide appropriate recommendations for the material.

12.2. Methods

The bulk samples were manually floated and sieved through a 500µm mesh. The residues were examined for shells, fruitstones, nutshells, charcoal, small bones, pottery, flint, glass and industrial residues, and were scanned using a magnet for ferrous fragments. The flots were examined at up to x60 magnification for charred and waterlogged botanical remains using a Leica MZ7.5 stereomicroscope. Identification of these was undertaken by comparison with modern reference material held in the Palaeoenvironmental Laboratory at Archaeological Services Durham University, and by reference to relevant literature (Jacomet 2006). Plant nomenclature follows Stace (2010). Habitat classification follows Preston *et al*. (2002).

Selected charcoal fragments were identified in order to provide material suitable for radiocarbon dating and to determine the nature and condition of the assemblages. The transverse, radial and tangential sections were examined at up to x500 magnification using a Leica DMLM microscope. Identifications were assisted by the descriptions of Schweingruber (1990) and Hather (2000), and modern reference material held in the Palaeoenvironmental Laboratory at Archaeological Services Durham University.

The works were undertaken in accordance with the palaeoenvironmental research aims and objectives outlined in the regional archaeological research framework and resource agendas (Roskams & Whyman, 2007; Hall & Huntley 2007; Huntley 2010).

Sample	Context	Feature	Trench	Volume processed (l)	Flot volume (ml)	C14 available	Rank	Notes
1	205	Clay floor	2	6	120	Y	Medium	This sample produced a moderate-sized flot comprising charcoal and several small (<4mm) fragments of charred hazel nutshell. All of the charred plant material is in relatively good condition with very little mineral encrusting. The charcoal assemblage clearly contains a mix of species. Selected fragments include oak stemwood (sapwood), and branchwood of hazel, ash, blackthorn and Maloideae (the latter is a subfamily comprising hawthorn, apple and rowan). There are no charred remains of cereals or wild weed seeds. Finds include unburnt and burnt animal bone, traces of fish bone, a pottery sherd and a small very mineral encrusted iron object (which is highly magnetic).
2	410	F411 - shallow pit	4	10.5	1500	Y	High	This sample produced a large flot with abundant charcoal and a modest number of charred cereal grains. The charcoal is in good condition with few mineral inclusions/precipitates and fragments up to 30mm. There is a mix of species with identified fragments including oak, hazel, yew, Maloideae (cf. hawthorn), Prunus sp. (blackthorn, wild plum or bullace), and Salicaceae (willow family). Many of the remains are branchwood, with some small calibre roundwood. The cereal remains are mainly compact wheat grains (bread wheat) that are generally in poor condition (pitted). There are a few small oat-type grasses (1mm sieve fraction) and a small pea. No cereal chaff or weed remains were noted. Finds include unburnt bone including some fish, tiny bits of egg shell, and small fragments of fired clay and mortar.

12.3. Results

Detailed palaeoenvironmental results for each context and a summary of material suitable for radiocarbon dating are presented in the tables below.

12.4. Discussion

Overall, the samples are characteristic of medieval domestic activity. The consistently good condition of the charcoal, particularly from pit [F411], suggests the deposits are from short-term events and there is no obvious sign of residual or intrusive material. As palaeoenvironmental evidence for the Richmond area is rather limited (Hall & Huntley 2007; Huntley 2010) for any period, these samples from the Castle grounds provide particularly useful data. Although there are similarities in the composition of these deposits, there are enough differences in the charcoal and plant macrofossil assemblages to suggest they may be from separate phases of activity or they originate from different purposes. The bread wheat grains noted in [F411] are unsurprising, as this was a prominent crop during the medieval period.

Sample	Context	Single Entity recommended 1st choice	Weight	Notes	Single Entity recommended 2nd choice	Weight	Notes
1	205	charred Hazel nutshell	20mg	relatively good condition	Blackthorn charcoal	81mg	(4 growth rings) twig (ø 4.8mm) with pith and bark present relatively good condition
2	410	charred Bread wheat grain	13mg	ALSO 2 x bread wheat grains 15mg all grains in poor condition	Salicaceae (cf. willow) charcoal	49mg	(7 growth rings) twig (ø 4.5mm) with pith and bark present relatively good condition

13. RADIOCARBON DATING

A single sample was submitted for radiocarbon determination by Beta Analytic, derived from fill of a possible hearth pit excavated in Trench 4 (410). The sample comprised a single charred cereal grain recovered from a bulk sample through flotation (see below).

A full method for the treatment and measurement of the samples by Beta Analytic can be found on their website (Beta Analytic 2022). All the dates have been calibrated using the OxCal software (version 4.4) (Bronk Ramsey 1995; 1998; 2001; 2009; Bronk Ramsey *et al*. 2010; Bronk Ramsey and Lee 2013) and the calibration curve IntCal20 (Reimer *et al*. 2020). The calibrated date ranges are principally cited at 95.4% probability, though in certain cases either the 1$^{\sigma}$ (68.2% probability) or specific spikes in the probability distribution have also been noted. Dates are cited in accordance with the form recommended by Mook (1986) and are rounded out to the nearest 10 years. They are also presented in accordance with the international standard known as the Trondheim convention (Stuiver and Kra 1986).

Laboratory No.	Sample	Material and Context	d^{13}C (‰)	Radiocarbon Age BP	Calibrated Date (95.4% confidence)
Beta-622512	RC20-410-2	Charred bread wheat grain from fill of probable hearth pit (410)	-20.2	870 ± 30	cal AD 1050–1260

The sample returned a calibrated date range of cal AD 1050–1260 (95.4% probability), which is relatively broad but does place the sample within the early centuries of the castle's occupation. Of more interest, perhaps, is the 1s probability range for the date. Given the presence of a plateau in the calibration curve, there are two separate prominent spikes which provide the wider date range noted above. The main spike equates to a much narrower date range of cal AD 1160–1220 (68.2% probability). Given the nature of the sample as a charred single-season grain from fill of a feature interpreted as a hearth pit, it is considered likely that the date of the sample can be broadly equated to the date of use of the feature with a low chance of it representing a residual intrusion into a later feature.

14. DISCUSSION

14.1. Trench 1

The initial aim of establishing the full form and date of the 'buttress' in Trench 1 can be considered to have been resoundingly met. It is 20th-century artifice, though seated neatly on the footings of a small square medieval building, itself a later addition during the active life of the Castle. This investigation, coupled with the observations of consolidated stonework in Trench 4, has vividly illustrated the more complex and imaginative nature of the Ministry of Works interventions within the Castle. The Castle we see today, whilst the bounding walls and arrangement of key structures is 'true' to the medieval building, is one in which the minutiae of the ground-level experience were crafted in the mid-20th century. This is far from a revolutionary observation, but the excavations of Trench 1 have provided clear evidence that—in this part of the Castle at least—constructed stonework which appeared medieval in origin, albeit confusing in form, was in fact entirely construction rather than reconstruction. Once the differences in mortar and bonding were identified, it has also illustrated that the low wall sealing the gap in the curtain wall is a modern imposition, as is probably much of the work which has 'tidied' and squared off the ragged edges of that gap.

The gap itself is considered most likely to be a section of later collapse in the curtain wall, perhaps weakened by the poorly compacted and consolidated deposits beneath. It is very unlikely to have a been an additional large entrance or gateway through the curtain wall. This is useful as it means we no longer require complex mental gymnastics to square the presence of a large portal with the considerable differences in ground level between the interior and exterior or the lack of a clear access route to this point outside the curtain wall.

Perhaps the most interesting point of interpretation raised through the works in Trench 1 is the indication of a possible former sally port at this point in the curtain wall. The evidence is indicative rather than certain, however. The abrupt edge between medieval and 20th-century stonework internally lay just inside the confines of the Trench but did line up with what appears to be an extant medieval door jamb sealed within the stonework of the curtain wall's exterior face. Considerable thanks must go to the combined expertise of the members of the Castle Studies Trust on this point, who examined this area on their visit to the site. The exterior of this section has been as heavily 'consolidated' as the interior, and the possible wider blocked gateway that can be seen is, again, largely Ministry of Works fancy. Facing the exterior, the left-hand jamb of the 'gateway' appears to be a modern construction, though the right-hand jamb appears original, with a chamfered corner disappearing back into a door reveal. Such a form would be consistent with the fragmentary remains of a narrow door set low in the wall, indeed below the ground level of the inner bailey. This presented the question of how such a sally port could be accessed, as it would require a cutting against the curtain wall interior to provide a ramp or staircase down. This interpretation is therefore supported by the presence of a large cut feature, effectively a pit or depression across the southern portion of the trench and extending well beyond, filled with poorly packed stone rubble. Whilst not definitive, this was the earliest deposit chronologically within the Trench (after the curtain wall itself) and represented a considerable investment of effort to fill up or block a large depression or hollow. Of course, this could be work unrelated to the possible presence of a sally port, but the confluence of evidence is persuasive to say the least. What can be said with certainty is that the work has raised an interesting new interpretation ripe for further investigation in the future.

Finally, the small medieval building within the Trench remains largely uninterpreted and uninterpretable given its position directly beneath the later 'buttress'. The only section of the building's interior which was accessible was the collapsed south-west corner, and so there were no additional internal features or surfaces surviving to aid interpretation of the building's purpose. The surviving foundations were well set and relatively deep, suggesting a sturdy stone-built structure, but the relatively small floor plan is more suggestive of an ancillary and practical structure. A survey of the Castle undertaken in 1538 identified the presence of a 'sware [square] house' between the main gate and Robin Hood Tower and, in the same passage, describes a roof, floor, windows, doors and, most interestingly, a stair. This raises the, admittedly speculative, possibility that the building in Trench 1 was a latterly added internal stair tower against the curtain wall.

14.2. Trench 2

The recovery of a William I silver penny from this trench is a rare—at least for this area—and significant find and, justifiably, was heavily featured in the episode of the BBC *Digging for Britain* programme which fortuitously visited the excavations on the day it was found. In terms of meeting the initial aims for the trench and wider interpretive value, however, the surrounding matrix from which the penny was recovered is more important.

The layer has been described as a floor/use deposit, which is an admittedly, and deliberately used, woolly term given the lack of clear structural features. The scattered and irregular stone concentrated on the upper surface of the deposit appears to represent stabilisation, seemingly in several episodes, but falls considerably short of the kind of flagged and cobbled surface in Trench 3. It is a rough area for rough work rather than habitation or any other even moderately high-status activity. Given the considerable presence of animal bone, with evidence for butchery on pieces including

pig, cattle and red deer, the most likely interpretation is that this area was an ancillary range of timber structures, possibly open-sided, for the rough butchery and processing of animal remains prior to the cuts going on to the stores and kitchens closer to Scolland's Hall and the main domestic part of the Castle.

The bone assemblage from the floor in Trench 3 sits well with finds of scattered probable domestic refuse from other medieval deposits across the trenches. As is set out in the specialist assessment of the faunal remains, we can start to see evidence of a rich diet, perhaps even one which has become a stereotype of high-status medieval dining: haunches of venison, cuts of hare and pheasant alongside suckling pig and fresh cod transported from the coast at great cost. By happy chance, Trench 2 landed on the remains of a process which may well have been largely invisible to the richer residents of Richmond Castle, a link between their great hunts and the roast joints of meat appearing on their banquet tables. It is also a process which can leave a light archaeological footprint and therefore one which it is a considerable positive to be able to put on the map.

14.3. Trench 3

The excavation of Trench 3 achieved its aim of exposing and investigating the anomaly observed on GPR. Whilst we are now able to describe the paved and cobbled floor, the interpretation, unfortunately, remains ambiguous. The key interpretive points concerning the feature are as follows:

- It is a broadly oval (or rectilinear with rounded ends) area of stone surfacing measuring between 10–13 m east to west and approximately 6 m north to south.
- The natural ground surface appears to have been altered to create a stable and relatively flat area for the creation of the feature.
- The upslope (northern) side includes well laid paving set on an angle to create a slightly dished profile across the width of the feature. The set of the stones and cobbles, however, is not tight enough for the feature to hold water, for example as a pond.
- There is differentiation of form within the feature, potentially representing zoning of different uses or functions. The northern edge comprises well-laid slabs, as does a reasonable portion of the southern part of the feature, at least that part which was exposed in the trench. The central part of the feature was surfaced in cobbles.
- There is evidence that the feature was physically subdivided by screens or walls and that it may even have carried a roof on timber posts.

A number of interpretations were mooted through the course of the excavations, and indeed many were offered by visitors to the site, all of which were given due consideration. Its overall form was not that of an internal floor surface, rather a defined yard, whether covered or uncovered. It did not have the homogeneity of form one would expect from a purpose-laid yard made for a single function—the curved nature of part of its outline raised the possibility that it was a horse circle of some kind, but this is considered unlikely. The interpretation which best fits the observed deposits and features was one which was raised during the visit of the Castle Studies Trust members: that the feature represents a form of stocking area or gathering point for materials in the inner bailey. Bearing in mind communal gathering structures such as tithe barns, such a feature would be a logical addition to the infrastructure of a Castle which was the administrative centre for a large area. Such an interpretation would account for the feature's slightly dished yet largely flat form, effectively providing an edge for preventing material spilling into the surrounding yard. Such a use would also account for the feature's subdivision into different 'zones', perhaps providing stocking areas for different materials. This, of course, remains speculative, but until such as time as similar features are noted elsewhere, or indeed future investigations reveal more of the surface at Richmond, it is considered to be the 'best fit'.

14.4. Trench 4

Although the excavations in Trench 4 were limited by time and resources, they resulted in two important observations relating to the long-term conservation management of the medieval remains in this part of the Castle, if not across the monument more widely.

Firstly, the demonstrably medieval deposits within the trench, albeit partially truncated, were at a notably shallow depth beneath the modern ground level. Findings in the other trenches demonstrated that medieval layers were effectively sealed by the importation of material in the 19th and 20th centuries, but Trench 4 has shown that even where this protective covering is absent, remains survive well, at least away from the walling that was the subject of Ministry of Works attentions. The second key observation is that the above-ground wall stubs consolidated by the Ministry of Works teams cannot be assumed to be an accurate depiction of the forms and shape of the below-ground medieval layout of buildings.

Trench 4 also provided the only feature within the excavations for which a radiocarbon date was obtained. The truncated hearth pit was one of the very few features that could be reasonably assumed to represent a short-lived event and for which the material culture and dating samples obtained were functionally related to its use (i.e., a date obtained from the samples can be reasonably assumed to be broadly contemporary with the historical action that created them). The 1$^{\sigma}$ probability range (68.2% probability) provided a date range for the hearth pit sample of cal AD 1160–1220. This would place its use in the late 12th to early 13th century, broadly contemporary with the substantial strengthening of the Castle, which incorporated the construction of the Keep. This episode of works is normally assumed to have been undertaken by Conan IV, Duke of Brittany (Earl of Richmond 1146–66), though it could potentially date to the time of his daughter Constance, Duchess of Brittany (Earl/Countess of Richmond 1166–1201) and her three husbands, Geoffrey Plantagenet, Duke of Brittany (*jure uxoris* Earl of Richmond 1181–86), Ranulf de Blondeville, Earl of Chester (*jure uxoris*

Earl of Richmond *c.* 1189–99) and Gui de Thouars (*jure uxoris* Earl of Richmond 1199–1201) (Jones 2006). This period of the lordship of Richmond is further complicated, however, by some of Constance's children also being titled Earl or Countess of Richmond during and after her life, up to the point when Henry III granted the estates to Peter of Savoy in 1241 (Vincent 2008). What can be said with certainty, however, is that the remains in Trench 4, around 10–20 cm below the modern ground level, date to the Castle's medieval heyday.

14.5. Material Culture

One of the most interesting aspects of the material culture recovered during the excavations is the apparent lack of 'higher status' ceramics. At first glance, this sits rather uneasily against the perception of Richmond as a regional centre of power which, although not always the principal seat of the holder of the title, was nevertheless a stronghold for several individuals with considerable influence on the national and international stage from the 11th to 14th centuries. All ceramics recovered through the course of the excavations have a relatively local provenance, where such can be accurately determined, and this would suggest a picture of Richmond as a local centre, with evidence of longer-distance and continental trade notably absent other than in the presence of a 14th-century French *jeton*. Should we therefore re-consider the status of Richmond Castle on the wider stage based on the finds assemblage?

Perhaps the closest comparable site which has been subject to detailed excavation is the castle of Barnard Castle, some 20 km to the north-west and commanding a hilltop position above the river in lower Teesdale. The pottery assemblage from Barnard Castle, assembled from excavation across the complex between 1974 and 1981 though also considering earlier interventions in the 1950s and potentially earlier, was subject to exhaustive and detailed publication by David Austin (2007a; 2007b) and is therefore an excellent comparative collection. The size of the assemblage mirrored the scale of the excavation work and, unlike the Richmond Castle excavations, focused on several key areas within the main working and domestic structures of the complex. This means, firstly, that a wider variety of vessel forms could be identified, allowing more detailed interpretation of some structures and areas, and the assemblage also likely comprises a more representative cross-section of the 'true' usage of pottery during the medieval period than at Richmond. In summary, the Barnard Castle assemblage predominantly comprised locally made wares identified by fabric type, along with broader, more readily identifiable regional wares including Scarborough ware, York White and Buff wares, Brandsby ware and examples of the later and more widely spread Cistercian ware. Foreign importation of pottery—one of the better markers of a site's high-status nature—was represented by only a small percentage of the assemblage, though these sherds were excluded from the published statistical analysis; the described examples of these wares included Saintonge ware, a blue-grey ware ladle, North French medieval pieces, Mediterranean turquoise and maiolica, and Normandy Stoneware. All other examples of imported wares described in the site report represent scattered examples of later medieval and post-medieval pottery (Austin 2007b, 399–400).

Both assemblages from Barnard Castle and Richmond Castle show a predominance of locally made and/or sourced ceramics, seemingly representing the considerable demand for and use of largely disposable containers. Whilst a wider variety of regional, and even foreign, wares were represented at Barnard Castle, this has to be weighed against the relative sizes of the two programmes of excavation and the areas within the respective castle complexes which were targeted for investigation.

There are, in addition, a number of general factors which must be considered when drawing conclusions about what the ceramic assemblage at Richmond Castle means for trade, interaction and status in the medieval period. Firstly, and echoing the point above, although the assemblage is of a reasonable overall size, the excavations themselves represent a very small footprint in comparison to the total area of the Castle's inner bailey and associated known structures. In essence, the assemblage should be considered a very small, and therefore potentially unrepresentative, sample. This is exacerbated by the fact that the excavations targeted areas which were considered peripheral to the elite activity centres or dwellings within the Castle complex, whether by design (Trenches 1, 3 and 4) or that became apparent during the work (Trench 2). This does not entirely devalue the conclusions which can be drawn from the ceramic assemblage but should rather stand as a strong caveat until such time as excavations are undertaken in, for example, the immediate area of Scolland's Hall, and comparisons between the two phases of excavation and their material culture can be drawn.

The second broad interpretive point to consider is one which was considered in detail by Austin (2007, 348–351) in relation to Barnard Castle: the nature of how pottery circulated through the daily life of the castle and why it was present. The most apposite exploration of this is introduced by a quote from Stephen Moorhouse's previous work on the medieval pottery industry of York and its surrounding area (1981, 108) stating that "the importance of common domestic pottery being circulated as containers is perhaps underestimated". There is an inherent interpretive danger in considering the meaning and use of ceramics in the medieval period as directly analogous to that of the early modern and modern periods. Put simply, we cannot with certainty assume that medieval pottery had the same inherent practical or symbolic value as an item as it does today, and Moorhouse's suggestion above is that we should give greater consideration to medieval ceramics as storage items, disposable and with their value largely tied to whatever was originally contained within. In this model, pottery becomes a by-product of trade and importation of necessary foodstuffs. To summarise in Austin's words when considering the Barnard Castle pottery assemblage: "Pottery…therefore, was mutable, ambiguous stuff for much of the Middle Ages, shifting in its role and meaning, but always as a temporary container, readily discarded and easily replaced in ale-house, food shop or pot stall at the castle gate" (Austin 2007b, 351). It is unsurprising against such an interpretation that an assemblage from the more peripheral areas within a castle complex is dominated by the everyday refuse of locally produced pottery.

Overall, the assemblage of medieval ceramics from these excavations is undoubtedly of interest, and its 'low-status' character is a key factor in that interest. Nevertheless, the broader context, both spatially and interpretively, coupled with the foci of this work being peripheral to the core activity and domestic spaces of the castle, means that we must be ready to reinterpret the assemblage in the light of future findings.

14.6. Future Research

As is the case with all limited and targeted excavation projects, new avenues of research and future enquiry are inevitably opened. The 2021 excavations were a considerable success in meeting their initial objectives of investigation and characterisation of key areas and remains, but it is now possible to add a number of new research priorities to be considered in any future archaeological work within and around the Castle.

The presence of a previously unknown sally port in the eastern curtain wall is considered to be a solid interpretation of the available evidence but is not definitive. The considerable alterations now known to have undertaken by the Ministry of Works in this area, and indeed other parts of the Castle, mean that investigation focused on the vicinity of Trench 1 will likely yield considerable return. This could take the form of any of the following:

- Further targeted archaeological trenching immediately to the south of Trench 1 and focused entirely on the large cut feature identified as the former ramp or stairway to the sally port. The presence of surviving medieval fabric immediately below ground level means that if the sally port was indeed present, much of its architectural form may survive intact.
- Limited archaeological trenching or test pitting immediately outside the curtain wall at this point may provide evidence for a track, path or metalled surface leading to and from a sally port.
- Detailed recording and analysis of the form and phasing of the curtain wall itself at this point. Principally this could differentiate 'original' walling from the Robin Hood Tower extension and, perhaps most importantly, identify the Ministry of Works consolidation and reconstruction phases. Even at a cursory observation, this section of curtain wall appears to have undergone many changes, and detailed analysis of the structure would be a non-invasive technique that could yield much new information.

The investigation of the linear anomalies in Trench 2 demonstrated the complexity of later works which are masking the, in this case, ephemeral but significant medieval layers. The GPR results clearly demonstrate that the complex of anomalies extends towards Scolland's Hall, and the stronger signals closer to the south-east corner of the inner bailey still provide a target of considerable interest for any future invasive investigations.

The exact nature and form of the stone surface characterised in Trench 3 remains ambiguous, but the depth of the remains means that further excavation of the feature would require considerable effort, particularly to expose its full extent. It is recommended that, although of interest, further investigation be given a lower priority than other features within the Castle.

The southern edge of the inner bailey has a strong potential for medieval remains to survive at a shallow depth beneath the topsoil, demonstrated most visibly by the mortar flooring and hearth pit in Trench 4. In addition, the fact that the sub-surface remains have also illustrated that the above-ground positioning and form of the wall footings does not accurately reflect their medieval form or arrangement means that this area should be considered a high priority in future investigations. For relatively limited effort, the potential new information gain from carefully targeted trenching in this area could be considerable.

Finally, the predominance of Tees Valley ware within the pottery assemblage from the Castle provides further impetus to a need to study and refine the chronology and, more importantly, the geographic spread and origins of what is clearly a significant medieval pottery type local to the Vale of Mowbray area.

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16. APPENDICES

Appendix 1 — Context Registers

Appendix 2 — Excavation Methodology

Appendix 3 — Medieval and Later Pottery Data Tables

Appendix 4 — Faunal Remains Assessment Data Tables

Appendix 5 — Ceramic and Stone Building Material Data

Appendix 6 — Clay Tobacco Pipe Assessment Data Table

Appendix 7 — Vessel and Window Glass Assessment Data

Appendix 8 — Miscellaneous Small Finds Data Table

APPENDIX 1 — CONTEXT REGISTERS

Context	Description	Prov. date
100	Topsoil and turf	Mid-20th century to modern
101	Construction cut for Ministry of Works consolidation around 'buttress' and against the infill wall across the gap in the curtain wall	Mid-20th century
102	Levelling deposit laid down by the Ministry of Works and filling the foundation cut [101]	Mid-20th century
103	Same as [101]	Mid-20th century
104	Same as (102)	Mid-20th century
105	Deposit beneath topsoil across the trench, presumably relating to the original land surface before the Ministry of Works consolidation of the area	Mid-20th century
106	Redeposited sandy clay deposit beneath (105)	19th- to 20th-century
107	Ministry of Works cut to the north side of 'buttress' and reaching the curtain wall	Mid-20th century
108	Discrete gravelly clay dump in the north corner of the trench associated with the Ministry of Works consolidation	Mid-20th century
109	Amorphous and relatively loose stone fill in what has been interpreted as the original ramp down to the sally port in the curtain wall	11th- to 12th-century
110	Dark silty clay deposit against the north-west side of the 'buttress' though no clear cut due to heavy rabbit disturbance	Mid-20th century
111	Same as (114)	-
112	Surviving section of medieval structural fabric extending from beneath 'buttress' to a return which led to the original sally port	11th-century
113	Upcast from natural substrate within and around the rabbit burrows disturbing (110)	-
114	Sandy subsoil deposit only observed in sondage and slot against the north-west wall of the 'buttress'. Truncated by the rabbit burrowing [115]	Medieval
115	Cut of rabbit burrowing against north-west wall of the 'buttress'	-
116	Cut for the original ramp to the sally port. Backfilled with poorly consolidated stony deposit (109) after it went of use	11th- to 12th-century
117	Dark silty deposit representing a possible relict soil cut by the construction cut for the medieval walling beneath the 'buttress'	Medieval
118	Fill of a truncated construction slot [119] for the medieval wall (122) beneath the later 'buttress'	12th- to 14th-century
119	Cut of construction slot [119] for the medieval wall (122) beneath the later 'buttress'	12th- to 14th-century
120	Cut for wide Ministry of Works trench against the north-west wall of the 'buttress' exposing the medieval walling beneath	Mid-20th century
121	Context deleted	-
122	South-west wall of the earlier medieval building capped by a concrete raft with the Ministry of Works 'buttress' built on top	12th- to 14th-century
123	North-west wall of the earlier medieval building with the Ministry of Works 'buttress' built on top	12th- to 14th-century
124	Loose clay and rubble deposit between 'buttress' and later infill walling	Mid-20th century
125	Fill of Ministry of Works cut [120] against the north-west wall of the 'buttress' exposing the medieval walling beneath	Mid-20th century
126	Probable step foundation of the original curtain wall	11th-century
127	Probable relict soil accumulated/formed against the foundations of walls (123) and (126)	12th- to 16th-century
128	Sandy subsoil accumulated/formed against the foundations of wall (123)	12th- to 16th-century
129	Context deleted	

130	Ministry of Works 'buttress' and concrete raft capping the medieval structural remains	Mid-20th century

Context	Description	Prov. date
200	Topsoil and turf	Mid-20th century to modern
201	Subsoil accumulated and stabilised above the parade ground make-up	Late 19th-century onwards
202	Stone fill of drain feature F207	Late 19th- to early 20th-century
203	Loose clayey sand matrix between the stone packing of drain feature F207	Late 19th- to early 20th-century
204	Mixed sandy clay deposit forming the main levelling material laid down to create the training/parade ground.	Late 19th- century
205	Sandy clay floor or use deposit immediately overlying the natural substrate, interpreted as being the remnants of an area for butchery	11th- to 12th-century
206	Cut for feature F206 comprising a narrow pipe trench to accommodate a lead water pipe running from the main water supply towards Scolland's Hall and the Cockpit Garden.	Mid-20th century
207	Cut for feature F207 comprising a drainage ditch seemingly running along the downslope edge of the training/parade ground	Late 19th- century
208	Lead water pipe in feature F206	Mid-20th century
209	Loamy fill packed around the water pipe in feature F206	Mid-20th century
210	Same as (205). Identified initially as a separate context due to later waterlogging changing the appearance.	11th- to 12th-century
211	Natural substrate	-
212	Roughly laid and intermittent stone packing in the top of the training/parade ground deposit	Late 19th- century

Context	Description	Prov. date
300	Topsoil and turf	Mid-20th century to modern
301	Stone infill to possible robber cut [304], probably representing removal of an early 20th-century structure.	Early to mid-20th-century
302	Mixed sandy clay deposit forming the main levelling material laid down to create the training/parade ground.	Late 19th- century
303	Accumulated and developed clayey sealed soil. Overlay the demonstrably medieval deposits and was sealed by (302)	15th-century to 19th-century
304	Cut of probable robber trench F304	Early to mid-20th-century
305	Stony spread deposit resulting from the truncation of (301)	Mid-20th century to modern
306	Area of banked earth underneath the stone surface only visible in the north-east corner of the trench. Potentially part of the construction of the surface or the front of a separate platform feature outside the limits of excavation	11th- to 15th-century
307	Curved flagstones forming the northern edge of the flooring. Laid at a slight angle towards the centre of the feature and describing a shallow curve in plan form.	11th- to 15th-century
308	Silty probable bedding layer for the cobbling (310) in the centre of the stone surface	11th- to 15th-century
309	Natural substrate	-
310	Area of cobbling in the centre of the trench. Forms part of the surface but unclear whether it is a surface, patching of the flagged area or a base for an internal partition	11th- to 15th-century
311	Redeposited natural with organic component used as bedding layer for flagging (307)	11th- to 15th-century
312	Discrete ashy and granular deposit above the possible wall foundation (314) and central cobbles (310)	11th- to 15th-century
313	Flagstone surface at the south end of the trench. Separated from the cobbles by the possible wall foundation (314)	11th- to 15th-century
314	Line of laid stone in the centre of the trench possibly representing a wall foundation	11th- to 15th-century
315	Possible post pads set into (314) and (310)	11th- to 15th-century
316	Area of silty clay within and beneath stone surfaces (307) and (313). Unclear if it represents laid bedding material or a relict land surface sealed by the stones	11th- to 15th-century

Context	Description	Prov. date
400	Topsoil and turf	Mid-20th century to modern
401	Area of discrete burning sitting directly beneath the topsoil	Mid-20th century to modern
402	Graded deposit to the south of the later revetting wall and beneath the topsoil	Mid-20th century to modern
403	Fill of the Ministry of Works foundation cut F407 associated with the consolidation of wall F405	Mid-20th century
404	East-west-oriented revetting wall dating to Ministry of Works consolidation and forming the northern limit of the trench	Mid-20th century
405	North-south-oriented wall section above ground. Consolidated and altered by Ministry of Works though preserving some medieval structural material	Mid-20th century
406	Context deleted	
407	Foundation cut for feature F407 associated with the consolidation of wall F405	Mid-20th century
408	Discontinuous mortar surface beneath 402 and representing the remnants of a medieval structure	11th- to 15th-century
409	Section of stub walling consolidated and altered by Ministry of Works though preserving some medieval structural material	Mid-20th century
410	Fill of shallow pit feature F411 comprising possible hearth or fire pit	11th- to 15th-century
411	Cut of pit feature F411	11th- to 15th-century
412	Yellow clay comprising redeposited natural or sealed subsoil above the natural substrate	11th- to 15th-century

APPENDIX 2 — EXCAVATION METHODOLOGY

Trench Locations and Sizes

Four trenches—2 no. 5 x 5 m, 2 no. 5 x 2 m—were excavated over the course of three weeks, their locations were tied to the research questions outlined above. The order of excavation of the proposed trenches was dependent on what was achievable with the resources available and what was considered the highest priorities in terms of research questions and conservation priorities.

Excavation Methodology

All excavation was undertaken by hand by project volunteers under the supervision of an experienced archaeologist. Excavation was undertaken by stratigraphic context and, where a context was thicker than 100 mm, in spits of no greater than 100 mm. This allowed for differentiation of finds in terms of both context and depth. Where structural remains were encountered, their full extent within the trench was exposed and recorded. Where cut features were exposed, they were cleaned and delimited as much as was practicable within the trench and investigated through excavation of a minimum 50% sample of any visible fill. Following completion of fieldwork, all trenches were reinstated.

Recording Methodology

All archaeological features were recorded on *pro forma* sheets, creating a primary written record accompanied by drawn and photographic records. A record of each trench was also made on a *pro forma* sheet which described its overall form, the local geomorphological and soil profile, features within and artefacts recovered.

A drawn record was compiled of all trenches, including plan and section/profile illustrations at a suitable scale (usually 1:10). Plans and sections of features were also made where they were not suitably captured on the overall drawings of the trenches.

The photographic record of the excavation was undertaken in high-resolution digital format. Photographs were taken of all trenches and features in addition to general site photography.

All trenches were located and tied to the national grid through an established survey network. Initial survey control was established with a site datum located using a Leica Smartrover survey-grade GPS with an accuracy of ±10 mm. A control network from the site datum and all further survey measurements were undertaken using a Leica TCR805 total station (5" accuracy). All trenches and features were located accurately within this network and their height above ordnance datum recorded.

Small Finds

All small finds were initially retained and bagged by context or spit for assessment at the post-fieldwork stage. Small finds were handled, packed and stored in accordance with the guidelines in *First Aid for Finds* (Watkinson and Neal 1998). In the event that finds of 'treasure' were uncovered, then the local Coroner would have been informed and the correct procedures would have been followed as outlined under the *Treasure Act 1996*.

Human Remains

In the event of human remains were uncovered, including evidence of cremations, they were to be initially left *in situ*, protected and covered from view. Should removal of the remains have been deemed necessary, then a licence would have been obtained from the Ministry of Justice (MoJ) prior to excavation proceeding. Exhumation of human remains would proceed in accordance with the MoJ licence, all health and safety regulations and guidance, and industry-standard guidance on the treatment of human remains within archaeological excavations (CIfA and BABAO 2018; Historic England 2017).

Scientific and Palaeoenvironmental Sampling

Given the uncertainty of the presence or level of archaeological remains likely to be encountered, the general aim of the scientific and palaeoenvironmental sampling strategy was: to provide information on the nature of human activity and the past environment within and around Richmond Castle, in relation to the archaeological deposits uncovered during the project.

In the event that scientific or palaeoenvironmental sampling was considered necessary, a more detailed outline strategy was agreed in the *Project Design* (Brightman *et al*. 2021), which was applied during fieldwork. Sampling levels and feature-specific approaches varied in accordance with the characteristics and potential of individual features to address the aims and objectives of the work and overall project. Sampling and assessment methodologies followed best practice as set out in relevant guidance documents, including *Environmental Archaeology* (English Heritage 2011).

APPENDIX 3 — MEDIEVAL AND LATER POTTERY DATA TABLES

Medieval and later pottery from Trench 1.

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
100	Buff-Orange Sandy ware	1	6	1	Base	Hollow ware	U/Dec; heavily sooted ext	LC11th – C13th	Heavily burnt & discoloured ext w/ a buff-orange in margin; moderate quartz up to 1.5mm
100	Chalk-tempered Sandy ware	1	2	1	BS	Hollow ware	U/Dec	Medieval	A hard, dense reduced fabric w/ an orange ext margin; no visible chalk
100	Creamware	1	1	1	Rim	Plate	U/Dec	c.1740 – c.1820	
100	Oxidised Sandy ware	1	4	1	BS	Hollow ware	Clear glaze ext	C12th – EC14th	An orange sandy fabric, slightly coarser than TVB but could be a variant
100	Oxidised Sandy ware	1	3	1	BS	Hollow ware	U/Dec	Medieval	A hard, fine, even orange fabric; harder and finer than typical TVB
100	Reduced Greenware	1	31	1	Strap handle	Jug/cistern	Dark green glaze on upper surface of handle	LC13th – C15th	A thin strap handle w/ a deep central groove; dark grey w/ light grey margins
100	Redware type	1	6	1	Base	Dish/bowl	Clear (red) glaze int only	LC17th – C18th	
100	Tees Valley ware A	1	2	1	BS	Hollow ware	U/Dec	E/MC13th – C14th	Buff ext margin; pale grey int
100	Tees Valley ware B	1	4	1	BS	Hollow ware	Even green glaze ext; possible thin white slip?	LC13th – C14th	A very thin-walled vessel; even orange fabric w/ fine quartz
100	Tees Valley ware B	1	1	1	BS/shoulder	Jar	U/Dec	LC13th – C14th	
100	Tees Valley ware B type	1	3	1	BS	Hollow ware	Spots of clear splash glaze ext	LC13th – C14th	As TVB but w/ fine muscovite on inner surface
100	Tees Valley ware B type	1	3	1	BS	Hollow ware	U/Dec	LC13th – C14th	A fine buff-orange fine fabric not certainly TVB
100	Tees Valley ware B type	1	2	1	BS	Hollow ware	Spots of clear splash glaze ext	LC13th – C14th	Common quartz up to 0.5mm
100	TP Bone China	1	4	1	BS	Hollow ware	U/ID TP printed blue-grey design ext	M – LC19th	
100	TP Whiteware	1	4	1	Rim	Plate	Asiatic Pheasants	M – LC19th	Crazed & discoloured
100	Whiteware	1	4	1	Rim	Dish/bowl	U/Dec	M – LC19th	
100	Whiteware	2	2	2	BS	Hollow ware	U/Dec	M – LC19th	
100	York Glazed ware	1	4	1	BS	Hollow ware	Mottled bright green glaze ext	c.1150 – c.1250	A fine, even white to pale grey fabric w/ very fine quartz

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
102	Bone China	1	0.5	1	BS	Cup/bowl	Small section of a linear design ext; burnt	C19th	
102	Buff Sandy ware	1	1	1	BS	Hollow ware	Flaky green glaze ext	LC11th – C13th	Common fine quartz
102	Buff Sandy ware	1	5	1	BS	Hollow ware	Square-rouletted bands under green glaze ext	C13th – C14th	A fine buff fabric w/ moderate fine quartz <0.5mm
102	Chalk-tempered Sandy ware type	1	4	1	Rim	Hollow ware	Patchy green glaze ext	Medieval	A hard dense fabric; grey w/ buff-orange margins; common quartz but no chalk; a small rounded clubbed rim on a short neck
102	Fine Redware	1	0.5	1	BS	Hollow ware	Clear glaze on one surface	C18th	
102	Late Blackware type	1	4	1	Base	Hollow ware	Black glaze int only	C18th	A hard, fine red fabric
102	Oxidised Gritty ware	1	3	1	BS	Hollow ware	Spots of clear splash glaze ext	LC12th – C13th	Common well-sorted quartz & round rock frags up to 1mm
102	Reduced Greenware	1	1	1	BS/Flake	Hollow ware	Green glaze ext	C13th – C14th	A very fine, soft grey fabric; heavily abraded
102	Tees Valley ware A	1	57	1	Base	Jug/jar	Pinched foot; small spots of dark glaze ext	E/MC13th – C14th	A fine buff fabric w/ fine quartz <0.5mm
102	Tees Valley ware A	1	24	1	Bifid rim	Hollow ware	Spots of clear splash glaze on rim; prominent rim & ridge ext	E/MC13th – C14th	A typical bifid rim w/a dished lip; hard, even buff fabric; slightly burnt
102	Tees Valley ware A	2	4	2	BS	Hollow ware	U/Dec	E/MC13th – C14th	
102	Tees Valley ware B	1	1	1	BS	Hollow ware	Thin, patchy clear glaze ext	LC13th – C14th	
102	Tees Valley ware B type	2	10	2	BS	Hollow ware	U/Dec	LC13th – C14th	Orange sandy fabrics but not has hard or dense as typical TVB
102	Tees Valley ware B/C type	1	6	1	BS	Hollow ware	Thin, even dark slip layer ext	LC13th – C14th	A hard, even orange fabric w/ sparse quartz up to 0.5mm; odd slip ext; overfired?
102	Unglazed Red Earth-enware	1	3	1	BS	Hollow ware	U/Dec	MC19th – EC20th	
102	Whiteware	1	1	1	BS	Hollow ware	U/Dec	MC19th – EC20th	
102	Yellow Glazed Coarse-ware	1	1	1	BS	Bowl	White slip under clear glaze int	LC18th – C19th	
102	Yellow ware	1	0.5	1	BS	Hollow ware	Clear (yellow) glaze int & ext	LC15th – C16th	Fine white fabric

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
104	Buff Sandy ware	1	2	1	BS	Hollow ware	U/Dec	LC11th – C13th	Grey core w/ buff margins; common quartz up to 0.5mm
104	Cane Coloured ware	1	8	1	BS	Hollow ware	Relief moulded rose motif ext; blue glaze int only	C19th – EC20th	
104	Reduced Greenware	1	4	1	BS	Hollow ware	Dull green glaze ext	LC13th – C15th	Dark grey core w/ a light grey margin under glaze
104	Tees Valley ware B	1	3	1	BS	Hollow ware	Partial mottled yellow green glaze ext	LC13th – C14th	Hard, fine red fabric
104	Tees Valley ware B	1	2	1	BS	Hollow ware	Thin, partial dull green glaze	LC13th – C14th	Hard, fine red fabric but note the variety in glaze colours
104	Tees Valley ware B type	1	4	1	BS	Hollow ware	Thin glaze fuming ext	LC13th – C14th	A hard red fabric w/ fine quartz up to 0.5mm
104	Tees Valley ware B type	1	3	1	BS	Hollow ware	U/Dec	LC13th – C14th	A bright orange fabric w/ fine quartz up to 0.5mm & sparse red grit up to 0.6mm
104	York Glazed ware type	1	6	1	BS	Hollow ware	Rilled profile under green glaze ext	c.1150 – c.1250	A fine white fabric w/ fine quartz <0.5mm
105	Bone China	1	6	1	BS	Plate	U/Dec	MC19th – EC20th	
105	Bone China	2	3	2	BS	Hollow ware	U/Dec	MC19th – EC20th	
105	Bone China	1	3	1	BS	Flatware	U/Dec	MC19th – EC20th	
105	Bone China	1	3	1	Recessed base	Jar	U/Dec	M – LC19th	Angular foot
105	Bone China	1	2	1	BS/Flake	U/ID	Thin blue lines on surviving surface	M – LC19th	
105	Brandsby-type ware	1	12	1	BS	Jug	Applied strips & pellet-lines; yellow-green glaze, black on pellets	c.1250 – c.1350	A white fabric w/ common quartz up to 0.5mm & sparse round red grit
105	Brandsby-type ware	1	7	1	BS	Hollow ware	Mottled bright green glaze ext	c.1250 – c.1350	
105	Brown Glazed Coarseware type	1	10	1	BS	Hollow ware	Dark green-brown glaze ext only	C19th	A hard, dense dark grey fabric w/ a dull red int margin
105	Buff Gritty ware	1	2	1	BS	Hollow ware	U/Dec	LC12th – C13th	Coarser than typical TVA; common quartz up to 0.5mm w/ moderate rounded white rock frags up to 1mm

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
105	Buff-grey Sandy ware	1	8	1	BS	Hollow ware	U/Dec	LC12th – C14th	A thin-walled vessel in a very hard, fine, even fabric w/ common quartz up to 0.5mm; rilled int surface
105	Buff-grey Sandy ware type	1	2	1	Rim	Hollow ware	Dull green glaze ext	Medieval	An odd sherd; form uncertain, in a fine buff to grey sandy fabric
105	Buff-White Gritty ware	1	5	1	Rim	Jar/CP	U/Dec (burnt surfaces)	LC11th – C13th	A hard white fabric (burnt); square-sectioned rim w/ rounded corners
105	Cane Coloured ware	1	12	1	Footring base	Bowl	U/Dec	C19th	Rounded footring
105	Chalk-tempered Sandy ware	1	22	1	Strap handle	Jug	Patchy green glaze on upper surface	C13th – C14th	A wide strap handle; grey core w/ red margins; common quartz up to 0.5mm, occ 1mm w/ rare white chalk grains up to 1mm; East Yorkshire?
105	Creamware	1	1	1	BS	Hollow ware	Relief band ext	c.1740 – c.1820	
105	Creamware	2	2	2	BS	Hollow ware	U/Dec	c.1740 – c.1820	
105	Creamware?	1	1	1	Handle	Cup?	Moulded lower handle terminal	c.1740 – C1820	A very small handle; heavily secondarily burnt & discoloured
105	Early Reduced Greenware	3	13	3	BS	Hollow ware	Green glaze ext	LC13th – E/MC14th	Grey core w/ buff or orange ext margins; sandy texture
105	Early Reduced ware	1	4	1	BS	Hollow ware	Green glaze w/ brown mottling ext	C13th – C14th	An even sandy grey fabric w/ common fine quartz & occ black grit
105	Green Glazed Sandy ware	1	15	1	Rim	Dish	Green glaze int; small clubbed rim	LC15th – C17th	Fine red fabric
105	Green Glazed Sandy ware	1	3	1	BS	Hollow ware	Dark green glaze int & ext	MC15th – C17th	A fine pale orange sandy fabric
105	HM Gritty ware	1	5	1	BS	Hollow ware	Smoothed ext	LC11th – E/MC12th	Odd black ext surface; hard, dense fabric w/ moderate quartz up to 1mm, mainly finer
105	Mottled ware type	1	1	1	BS	Hollow ware	Clear glaze int & ext w/ fine mottling	C18th	A fine red fabric; not the usual buff
105	Mottled Yellow Glazed Coarseware	1	7	1	Rim	Dish	White slip int w/ dark brown mottling	LC18th – C19th	A wide flat everted rim
105	Oxidised Coarse Sandy ware	1	3	1	BS	Hollow ware	Patchy clear glaze ext	Medieval	Softer and coarser than typical TVB; common quartz up to 0.5mm
105	Oxidised Sandy ware	1	21	1	Rim/handle	Pitcher	Spots of brown/clear glaze ext	C12th – C13th	A hard red fabric w/ quartz & sparse red grit <0.5mm; similar to TVB but the form is earlier

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
105	Oxidised Sandy ware	2	1	1	Fragment	U/ID	Possible glaze fuming	Medieval	A small, soft, very heavily abraded fragment
105	Oxidised Sandy ware	1	9	1	BS	Hollow ware	Patchy green glaze ext	LC12th – C14th	Thin grey core w/ buff-orange int & ext margins; moderate quartz up to 1mm
105	Porcelain	1	1	1	BS	Hollow ware	U/Dec	C19th	
105	Porcelain	1	1	1	BS	Hollow ware	Moulded fluting/ridges ext	C19th – EC20th	
105	Porcelain	1	1	1	Fragment	Dec element	Stem w/ leaves	C19th	Part of decorative element from an ornament
105	Reduced Greenware	4	25	4	BS	Hollow ware	Green glaze ext	C14th – EC15th	Hard, fine reduced fabrics
105	Reduced Sandy ware	5	23	5	BS	Hollow ware	U/Dec	C13th – C14th	A very hard, dense fabric; grey core w/ dull orange margins; moderate quartz up to 0.8mm, mainly around 0.5mm
105	Sandy ware	1	2	1	BS	Hollow ware	Dull green glaze ext	Medieval	Grey core w/ a orange-buff int margin & a pale grey ext margin; common quartz & occ rock frags
105	Scarborough 1 ware	2	5	2	BS	Hollow ware	Ridge ext under dark green glaze ext	MC12th - C14th	
105	Slipware	1	1	1	BS	Hollow ware	U/Dec	C18th	White on red feathered slip design ext
105	Tees Valley type ware	1	9	1	Rim	Jar	U/Dec	LC13th – C14th	A small jar in a fine pale grey fabric; typical wedge-shaped rim; cf Wrathmell 1987 Fig 17; 17, 23
105	Tees Valley ware A	1	20	1	Rim & spout	Jug	Sparse, thin clear glaze on rim	E/MC13th – EC14th	Collared rim w/a pinched spout; finger mark int
105	Tees Valley ware A	1	2	1	Rim	Hollow ware	U/Dec	E/MC13th – EC14th	A small frag from a flat-topped rim w/ a dished int profile; fine white fabric
105	Tees Valley ware A	1	42	1	Base	Jug/jar	Pinched feet; small spots of brown glaze ext	E/MC13th – C14th	Fine quartz & round red grit <0.5mm w/ white rock frags up to 2mm
105	Tees Valley ware A	29	136	29	BS	Hollow ware	U/Dec	E/MC13th – C14th	The degree of variation in size & density of inclusions reflects the range within the type and the difficulty of defining the parameters of the type
105	Tees Valley ware A	3	21	3	BS	Hollow ware	Patches & spots of clear / yellow glaze ext	E/MC13th – EC14th	
105	Tees Valley ware A	1	2	1	BS	Hollow ware	Pale green/yellow mottled glaze ext	E/MC13th – EC14th	
105	Tees Valley ware A	1	1	1	BS	Hollow ware	Spots of clear glaze ext	E/MC13th – C14th	

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
105	Tees Valley ware A	1	10	1	Base	Hollow ware	U/Dec	E/MC13th – EC14th	Light burning on underside of base
105	Tees Valley ware A	1	21	1	Base	Hollow ware	U/Dec	E/MC13th – EC14th	A very thin base; finer end of the spectrum
105	Tees Valley ware A	1	8	1	BS	Hollow ware	Spots of clear splashed glaze ext	E/MC13th – EC14th	
105	Tees Valley ware A	1	3	1	Base	Hollow ware	U/Dec	E/MC13th – EC14th	
105	Tees Valley ware A type	2	12	2	BS/base	Jug/jar	Parts of pinched feet	E/MC13th – C14th	Coarser than typical TVA w/ quartz up to 1mm
105	Tees Valley ware A type	1	1	1	BS	Hollow ware	Green glaze ext	E/MC13th – C14th	
105	Tees Valley ware A type	7	16	7	BS	Hollow ware	Various glaze colours from clear/brown to mottled green ext	E/MC13th – EC14th	Some variation in size & density of quartz inclusions in buff fabrics
105	Tees Valley ware A type	1	8	1	BS/Handle stump	Hollow ware	Patchy clear glaze ext	E/MC13th – EC14th	A buff fabric w/ a thin red ext margin; slightly coarser than typical w/ quartz up to 1mm
105	Tees Valley ware A type	1	2	1	BS	Hollow ware	U/Dec	E/MC13th – EC14th	Buff fabric w/ quartz & sparse buff rock frags
105	Tees Valley ware A type	1	42	1	Base	Jug/jar	Multiple pinched feet; small spots of green splash glaze ext	E/MC13th – C14th	Pale grey core w/ white surfaces; fine quartz <0.5mm w/ moderate rounded rock frags up to 2mm
105	Tees Valley ware B	1	20	1	Rim	Jug	Collared rim w/ a flat top	LC13th – C14th	Hard range fabric w/ moderate, well-sorted fie quartz & rare red grit
105	Tees Valley ware B	1	23	1	Rim	Jar	U/Dec	LC13th – C14th	A hard, red fabric; typical wedge-shaped rim w/ a an angular lip; cf Wrathmell 1987: Fig 17; 17, 23
105	Tees Valley ware B	1	5	1	Rim	Jug	U/Dec	LC13th – C14th	Typical Tees Valley ware jug rim w/a flat top & a small pointed lip;
105	Tees Valley ware B	1	10	1	Base	Hollow ware	Spots of clear/brown glaze int	LC13th – C14th	A hard, fine, even red fabric w/ white streaks
105	Tees Valley ware B	4	59	4	Base	Jug/jar	Pinched feet & small spots of glaze	LC13th – C14th	Hard orange fabrics w/ some variation in size & density of quartz grit
105	Tees Valley ware B	25	64	25	BS	Hollow ware	Some w/ rilled ext surface	LC13th – C14th	Some variation between sherds in terms of the size & density of inclusions

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
105	Tees Valley ware B	4	10	4	BS	Hollow ware	Patchy clear / brown glaze ext	LC13th – C14th	Thin walled vessel; sparse/moderate quartz
105	Tees Valley ware B	4	10	4	BS	Hollow ware	Clear to yellow glaze ext	LC13th – C14th	
105	Tees Valley ware B	7	22	6	BS	Hollow ware	Patchy clear/brown glaze ext	LC13th – C14th	Hard, fine red fabrics
105	Tees Valley ware B	1	12	1	BS/Neck	Jug	Mottled green-brown glaze ext; ridge at base of neck	LC13th – C14th	Thin-walled vessel; fine orange fabric w/ fine quartz & red grit
105	Tees Valley ware B	3	9	3	BS	Hollow ware	Mottled green-brown glaze ext	LC13th – C14th	Fine red fabric
105	Tees Valley ware B	1	1	1	BS	Hollow ware	Spots of clear glaze ext	LC13th – C14th	Finer than typical Tees Valley ware B
105	Tees Valley ware B	1	21	1	Base	Hollow ware	U/Dec	LC13th – C14th	
105	Tees Valley ware B	1	17	1	BS	Hollow ware	Small spots of glaze ext	LC13th – C14th	Odd sherd; form uncertain
105	Tees Valley ware B	2	6	2	BS	Hollow ware	U/Dec	LC13th – C14th	Common fine quartz in an orange body
105	Tees Valley ware B type	1	17	1	Rod handle	Jug	Spots & splashes of glaze ext	LC13th – C14th	Slightly unusual in that the core of the handle is grey w/ red margins; common fine quartz <1mm
105	Tees Valley ware B type	4	8	4	BS	Hollow ware	Various glaze colours from clear/brown to mottled green ext	LC13th – C14th	Some variation in size & density of quartz inclusions
105	Tees Valley ware B type	1	15	1	BS/base	Jug/jar	BS w/ parts of pinched feet ext	LC13th – C14th	
105	Tees Valley ware B/C	1	9	1	Rim	Jug	Thick white slip int & ext	LC13th – C14th	Typical TV jug rim; 'D' shaped w/ a pointed lip
105	Tees Valley ware B/C	1	2	1	BS	Hollow ware	White slip under clear glaze ext; thin double incised line	LC13th – C14th	Fine red fabric
105	Tees Valley ware B/C	1	1	1	BS	Hollow ware	Patchy green glaze ext	LC13th – C14th	Fine red fabric
105	Tees Valley ware B/C	1	4	1	BS	Hollow ware	Patchy clear glaze ext on fine buff fabric	LC13th – C14th	Sandy red fabric
105	Tees Valley ware B/C	3	9	3	BS	Hollow ware	Thin buff slip ext	LC13th – C14th	
105	Tees Valley ware B/C	1	3	1	BS	Hollow ware	Thin buff slip ext	LC13th – C14th	Sandy red fabric w/ occ large red fabric

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
105	Tees Valley ware B/C	3	11	3	BS	Hollow ware	Thin buff slip w/ full or partial clear glaze ext	LC13th – C14th	
105	Tees Valley ware B/C	3	15	3	BS	Hollow ware	Thin buff slip ext w/ mottled green glaze ext	LC13th – C14th	
105	Tees Valley ware B/C	1	6	1	BS	Hollow ware	Thin buff slip w/ small spots of glaze ext	LC13th – C14th	Thin-walled vessel
105	Tees Valley ware B/C	1	1	1	BS	Hollow ware	Mottled yellow-brown glaze ext over thin buff slip	LC13th – C14th	Fine orange fabric
105	TP Bone China	1	1	1	Rim	Plate	Wavy edge; printed red geometric designs int	MC19th – EC20th	
105	TP Bone China	1	1	1	Rim	Hollow ware	Red overglaze printed design ext	MC19th – EC20th	
105	TP Whiteware	3	8	2	Profile	Plate	Pale blue floral border	M – LC19th	Possibly Asiatic Pheasants
105	TP Whiteware	1	0.5	1	Rim	U/ID	U/ID TP design	M – LC19th	
105	TP Whiteware	1	1	1	BS/Flake	Hollow ware	Elaborate curvilinear design ext	M – LC19th	
105	TP Whiteware	1	2	1	BS	Flatware	Willow?	M – LC19th	
105	TP Whiteware	1	0.5	1	BS	Flatware?	U/ID TP design int	M – LC19th	
105	TP Whiteware	1	10	1	Rim	Plate	Red printed leaf & tendril design int	M – LC19th	
105	TP Whiteware	3	3	1	BS	Flatware	Brown printed maker's mark on underside	1895 – C20th	Printed text: VENIC … / H & / C / ENGLAND
105	TP Whiteware	1	2	1	BS	Hollow ware	Grey printed design ext	M – LC19th	
105	TP Whiteware	2	2	2	BS	U/ID	U/ID TP designs	M – LC19th	
105	TP Whiteware	1	1	1	BS	Flatware	U/ID blue printed design on one side	M – LC19th	
105	U/ID Sandy ware	2	8	2	BS	Hollow ware	U/Dec	Medieval	Distinctive but unidentified fabric; grey core w/ thin red margins int & ext; moderate quartz up to 0.5mm, mainly finer
105	White Salt Glazed Stoneware	1	3	1	BS	Cup/bowl	U/Dec	c.1720 – c.1780	A very thin-walled vessel

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
105	White Salt Glazed Stoneware	2	4	1	Base	Hollow ware	U/Dec	c.1720 – c.1780	
105	Whiteware	4	5	4	BS	U/ID	U/Dec	M – LC19th	Sherds from various vessels
105	Whiteware	1	2	1	BS	Flatware	U/Dec	M – LC19th	
105	Whiteware	1	5	1	Handle	Jug	U/Dec	M – LC19th	An angular handle
105	Whiteware	1	2	1	Rim	Bowl	Blue line on rim	LC19th – EC20th	
105	Whiteware	2	3	2	BS	Hollow ware	U/Dec	M – LC19th	
105	Whiteware	1	1	1	BS	Hollow ware	U/Dec	M – LC19th	
105	Whiteware	1	2	1	BS/Flake	Hollow ware	U/Dec	M – LC19th	
105	Yellow Glazed Coarse-ware	1	1	1	BS	Dish/bowl	White slip int under clear glaze	LC18th – C19th	
105	York Glazed ware type	1	3	1	BS	Hollow ware	Dark green glaze ext	c.1150 – c.1250	A dull orange to grey sandy fabric w/ fine quartz & occ fine red grit
106	Buff Coarse Sandy ware	1	33	1	Tube spout	Jug	Thin patchy green glaze ext	C12th – C13th	Common quartz grains up to 1mm in a buff body; slightly coarser than TVA; tube spout w/ part of strut
106	Buff Sandy ware	1	14	1	Base	Hollow ware	U/Dec; light sooting ext	C12th – C13th	Finely finished base, slightly sagging; similar to TVA but w/ common white rock frags up to 1mm
106	Buff Sandy ware	3	13	3	BS	Hollow ware	U/Dec	C12th – C13th	Buff-white fabric; slightly coarser than TVA
106	Buff Sandy ware	1	8	1	BS	Hollow ware	U/Dec	C12th – C14th	A hard fabric; dark grey core w/ buff int & ext margins; common quartz up to 1mm, mainly finer
106	Buff Sandy ware	1	1	1	BS	Hollow ware	U/Dec	Medieval	A small, very thin buff sherd w/ fine quartz <0.2mm
106	Buff-White Gritty ware	1	12	1	Rim	Jar/CP	U/Dec	LC11th – C13th	Heavy square-sectioned rim in a hard buff-white fabric w/ common quartz & occ red grit up to 1mm
106	Buff-White Sandy ware	2	3	2	BS	Hollow ware	Dark green glaze ext	C12th – C14th	Hard, white fabric w/ common quartz & white rock frags up to 1mm, mainly finer
106	Buff-White Sandy ware	1	1	1	BS	Hollow ware	Yellowish-green glaze ext	C12th – C14th	A bright white fabric w/ common, well-sorted quartz up to 0.3mm
106	Early York Glazed ware	1	14	1	BS	Hollow ware	Yellowish-green glaze w/ darker green mottling ext	c.1150- c.1200	A pale grey sandy fabric w/ fine quartz & occ black & grey rock frags

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
106	Late Medieval Sandy ware?	1	12	1	BS	Hollow ware	U/Dec	Late Medieval?	A very hard, dense reduced sherd; possibly over-fired, resembling CTSW but lacking chalky incs; late medieval or an overfired early type
106	Oxidised Sandy ware	1	5	1	Base	Hollow ware	U/Dec; abraded surfaces	Medieval	A soft, abraded orange sandy fabric w/ fine quartz
106	Oxidised Sandy ware	1	14	1	BS	Hollow ware	U/Dec	C12th – C14th	A dark grey fabric w/ buff-orange ext margin; common quartz up to 0.8mm, mainly finer
106	Reduced Sandy ware	1	2	1	BS	Hollow ware	U/Dec	Medieval	Grey core w/ buff margins; hard, dense fabric w/ quartz up to 0.5mm, occ larger
106	Scarborough 2 ware	1	1	1	BS	Hollow ware	Dark green glaze ext	C13th - C14th	Hard, fine white fabric
106	Splash Glazed Sandy ware	1	5	1	BS	Hollow ware	Patchy green splash glaze ext	C12th – C13th	Grey core; buff ext, orange int; common quartz up to 1mm, occ rock frags
106	Tees Valley ware A	1	28	1	Rim	Jug?	Bifid rim; double ridge ext w/ thumb impression	E/MC13th – EC14th	
106	Tees Valley ware A	20	75	20	BS	Hollow ware	Patchy glaze on some sherds; some rilling	E/MC13th – EC14th	Buff fabrics w/ common, well-sorted quartz up to 1mm, mainly finer
106	Tees Valley ware A	1	23	1	Strap handle	Jug	Patchy mottled clear t dark green glaze ext	E/MC13th – EC14th	Pale orange core w/ buff margins
106	Tees Valley ware A	3	26	2	BS & neck	Jug	Thin glaze fuming ext; ridge at base of neck	E/MC13th – C14th	A hard buff fabric w/ moderate, well-sorted quartz up to 0.5mm, occ larger
106	Tees Valley ware A	1	2	1	BS	Hollow ware	Mottled green glaze ext	LC13th – C14th	Thin walled vessel
106	Tees Valley ware A type	1	22	1	Rim	Jug	Patch of overfired glaze; collared rim w/ ridge on neck	E/MC13th – EC14th	A hard, overfired TVA fabric
106	Tees Valley ware A type	1	22	1	Base	Hollow ware	Patchy clear glaze on underside; contact scar	E/MC13th – EC14th	Partially burnt on underside
106	Tees Valley ware A type	1	2	1	BS	Hollow ware	U/Dec	E/MC13th – C14th	Thin-walled vessel
106	Tees Valley ware B	1	14	1	Base	Hollow ware	Knife-trimmed ext; patches of clear glaze int & ext	LC13th – C14th	Orange fabric w/ thin buff int & ext margins; common quartz up to 0.5mm
106	Tees Valley ware B	21	80	18	BS	Hollow ware	Patchy clear glaze ext; rilled ext	LC13th – C14th	Pale orange fabric w/ common fine quartz up to 0.5mm, occ larger
106	Tees Valley ware B	1	1	1	BS/thumbing	Jug	Patchy clear glaze ext	LC13th – C14th	

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
106	Tees Valley ware B	1	1	1	Rim	Hollow ware	Patchy brown glaze ext	LC13th – C14th	Small part of a flat-topped rim
106	Tees Valley ware B	1	6	1	BS	Hollow ware	Dark mottled green-brown glaze ext	LC13th – C14th	Thin-walled vessel; fine, even orange fabric
106	Tees Valley ware B	1	5	1	BS	Hollow ware	U/Dec	LC13th – C14th	Pale orange w/ a buff ext margin; common round quartz up to 0.5mm, rarely larger
106	Tees Valley ware B	1	2	1	BS	Hollow ware	Thin glaze fuming ext	LC13th – C14th	
106	Tees Valley ware B	1	1	1	BS	Hollow ware	Pale green glaze ext	LC13th – C14th	
106	Tees Valley ware B	1	12	1	BS	Jug?	App & finger impressed strip ext; dark green-brown glaze ext	LC13th – C14th	
106	Tees Valley ware B	4	11	3	BS	Hollow ware	Patchy clear glaze ext	LC13th – C14th	
106	Tees Valley ware B type	1	15	1	BS	Hollow ware	U/Dec	LC13th – C14th	Slightly coarser than typical Tees Valley ware B
106	Tees Valley ware B/C	1	2	1	BS	Hollow ware	Mottled green glaze on a thin buff slip layer	LC13th – C14th	
106	Tees Valley ware B/C	1	5	1	BS	Hollow ware	Buff slip ext	LC13th – C14th	
106	Tees Valley ware B/C	1	13	1	BS/Neck	Jug	Patchy clear splash glaze on neck; thin buff slip ext	LC13th – C14th	Unusual neck w/ prominent bulge
106	Tees Valley ware B/C	1	22	1	Rim & neck	Jug	Thin buff slip ext; patchy clear glaze on neck	LC13th – C14th	Deep collared rim; angular rim & lip
106	Tees Valley ware B/C	1	3	1	BS	Hollow ware	Thin white slip ext under mottled green glaze ext	LC13th – C14th	
108	Buff-White Gritty ware	1	4	1	BS	Hollow ware	U/Dec (sooted ext)	LC11th – C13th	A hard buff fabric w/ common quartz & angular red rock frags up to 1mmm, occ larger
108	Chalk-tempered Sandy ware	2	11	2	BS	Hollow ware	U/Dec	Medieval	A hard grey fabric w/ fine quartz & sparse chalk; see text
108	Tees Valley ware A	1	7	1	BS	Hollow ware	U/Dec	E/MC13th – C14th	A hard buff fabric w/ fine quartz & round red grit <0.5mm
108	Tees Valley ware B	1	3	1	BS	Hollow ware	U/Dec	LC13th – C14th	
108	Tees Valley ware B	1	2	1	BS	Hollow ware	Clear glaze ext w/ streaky brown mottling	LC13th – C14th	A hard fine red fabric w/ fine quartz grains

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
108	Tees Valley ware B type	1	5	1	BS	Hollow ware	U/Dec	LC13th – C14th	A hard, fine red fabric w/ sparse fine quartz & larger white rock frags up to 1mm
109	Brandsby-type ware	1	1	1	BS	Hollow ware	Applied pellets/scales w/ mottled green glaze ext	E/MC13th – C14th	
109	Reduced Greenware type	1	5	1	Base	Hollow ware	Small spots of green glaze on underside of base	LC13th – LC14th	A hard, dense grey fabric w/ a buff ext margin; sparse fine quartz & red grit
109	Tees Valley ware A	1	0.5	1	BS	Hollow ware	U/Dec	E/MC13th – EC14th	
109	Tees Valley ware A type	1	3	1	BS	Hollow ware	Green glaze ext	E/MC13th – EC14th	Pale grey under green glaze w/ a buff int margin; common fine quartz & sparse red grit
109	Tees Valley ware B	1	79	1	Strap handle	Jug	Patchy dark green glaze ext; multiple thumbings	LC13th – C14th	A wide, thin handle on a thin body; finger marks int; hard red fabric w/ quartz & sparse red grit
109	Tees Valley ware B	1	3	1	BS	Hollow ware	Spots of splash glaze ext	LC13th – C14th	Fine quartz throughout w/ rare red grit
109	Tees Valley ware B	1	2	1	BS/Flake	Hollow ware	U/Dec	LC13th – C14th	
109	Tees Valley ware B	1	7	1	BS	Hollow ware	U/Dec	LC13th – C14th	
109	Tees Valley ware B	1	1	1	BS/Flake	Hollow ware	Partial clear glaze ext	LC13th – C14th	
109	Tees Valley ware B/C	1	2	1	BS	Hollow ware	Thin buff slip ext	LC13th – C14th	
109	Tees Valley ware B/C	1	1	1	BS	Hollow ware	Thin buff slip ext w/ yellow-green glaze ext	LC13th – C14th	
110	Bone China	2	2	2	BS	Hollow ware	U/Dec	M – LC19th	
110	Buff-White Gritty ware	1	8	1	BS	Hollow ware	U/Dec	LC11th – C13th	A hard, white gritty fabric w/ common quartz & moderate red grit up to 1mm, occ larger; sooted ext
110	Buff-White Gritty ware	2	9	2	BS	Hollow ware	U/Dec	LC11th – C13th	A hard, white gritty fabric w/ common quartz & moderate red grit up to 1mm, mainly finer; sooted ext
110	Chalk-tempered Sandy ware	2	8	2	BS	Hollow ware	U/Dec	Medieval	A very hard, dense fabric, reduced w/ dull buff margins; moderate, well-sorted fine quartz w/ rare chalk grains
110	Chalk-tempered Sandy ware	1	2	1	BS	U/ID	U/Dec (abraded)	Medieval	Sparse chalk temper but not as hard or dense as other chalk-tempered wares
110	Early Reduced Green-ware	1	9	1	BS	Hollow ware	Thin, patchy green splash glaze ext	C13th – EC14th	Dark grey throughout w/ a thin buff ext margin; a hard, fine dense grey fabric

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
110	Early Reduced Green-ware	3	6	3	BS	Hollow ware	Mottled green glaze ext	C13th – C14th	A pale grey sandy fabric w/ fine quartz & black grit <0.5mm
110	Tees Valley ware A	1	6	1	BS	Hollow ware	Clear glaze ext	E/MC13th – EC14th	Fine quartz & sparse white grit
110	Tees Valley ware A	2	11	2	BS	Hollow ware	U/Dec	E/MC13th – EC14th	
110	Tees Valley ware A	1	3	1	BS	Hollow ware	U/Dec	E/MC13th – EC14th	Finer end of the spectrum
110	Tees Valley ware A	1	4	1	BS	Hollow ware	Patches of clear splash glaze ext	E/MC13th – EC14th	Finer end of the spectrum; buff margins w/ a pale grey core
110	Tees Valley ware A	1	2	1	BS	Hollow ware	U/Dec	E/MC13th – EC14th	
110	Tees Valley ware A	1	2	1	BS	Hollow ware	Mottled green glaze ext; ridge ext	E/MC13th – EC14th	Common quartz, occ up to 1mm, mainly finer
110	Tees Valley ware A type	1	22	1	Rim	Jar	U/Dec	E/MC13th – EC14th	A rounded triangular rim w/ a pointed lip & pro-nounced overhang; hard buff fabric
110	Tees Valley ware B	4	9	4	BS	Hollow ware	U/Dec	LC13th – C14th	
110	Tees Valley ware B	1	11	1	Base	Hollow ware	U/Dec	LC13th – C14th	Thick base
110	Tees Valley ware B	1	3	1	BS	Hollow ware	Clear glaze w/ green mottling ext	LC13th – C14th	Common quartz, occ up to 1mm, mainly finer
110	Tees Valley ware B	2	2	2	BS	Hollow ware	Mottled green glaze ext	LC13th – C14th	
110	Tees Valley ware B type	1	1	1	BS	Hollow ware	Dark green glaze ext	C13th – C14th	A finer fabric and a much darker red than typical TVB also darker than Scarborough ware
110	Tees Valley ware B/C	1	9	1	BS	Hollow ware	Thin buff slip ext	LC13th – C14th	
110	Whiteware	1	5	1	Handle	Jug	U/Dec	M – LC19th	
110	Whiteware	1	1	1	BS	Hollow ware	U/Dec	M – LC19th	
111	Buff Sandy ware	1	12	1	Rim & spout	Jug	Patchy but thick clear glaze (?splashed) ext	C12th – EC14th	Well sorted quartz in a hard buff fabric up to 0.5mm, occ larger; distinctive clubbed rim w/ pulled spout
111	Buff Sandy ware	1	6	1	BS/Neck	Jug?	Green glaze ext; ridge at base of neck	C13th – C14th	

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
111	Chalk-tempered Sandy ware	1	9	1	BS	Hollow ware	U/Dec	Medieval	A very hard, dense reduced fabric w/ dull buff int & ext margins; sparse white chalk & moderate well-sorted quartz
111	Tees Valley ware A type?	1	6	1	Rim	U/ID	Sparse clear glaze ext w/ odd white patches / deposit	E/MC13th – EC14th	Buff fabric w/ quartz & buff rock frags; TVA apart from the odd finish
111	Tees Valley ware B	1	2	1	BS	Hollow ware	Thin red slip ext	LC13th – C14th	Hard red fabric w/ quartz & buff rock frags up to 0.5mm
111	Tees Valley ware B	1	2	1	BS	Hollow ware	Patchy clear splash glaze over applied pellets w/ green glaze	LC13th – C`14th	A hard, thin pale orange sherd
111	Tees Valley ware B type	1	1	1	BS	Hollow ware	U/Dec	LC13th – C14th	An unusually thin sherd; very hard and dense w/ sparse quartz & rock <0.5mm; unusual
114	Buff Sandy ware	1	2	1	BS	Hollow ware	U/Dec	C13th – C14th	Slightly sandier than TVA but could be a variant
114	Buff-Grey Sandy ware	1	2	1	BS	Hollow ware	Patchy green glaze ext	C13th – C14th	Pale grey w/ a buff int margin; finer than TVA
114	Early Reduced ware	2	6	2	BS	Hollow ware	Green glaze ext	LC13th – C14th	Grey core w/ buff-grey int & ext margins; fine texture
114	Reduced Greenware	1	2	1	BS	Hollow ware	Green glaze ext w/ part of combed decoration	LC13th – LC14th	A fine grey fabric
114	Reduced Greenware	1	2	1	BS	Hollow ware	Yellow-green glaze ext	LC13th – C14th	A pale grey sandy fabric
114	Reduced Sandy ware	1	3	1	BS	Hollow ware	Dark green glaze ext	C13th – C14th	A pale grey sandy fabric w/ moderate quartz up to 0.5mm
114	Tees Valley type ware	1	13	1	BS	Hollow ware	U/Dec	C13th – C14th	An orange fabric w/ buff margins; fine quartz <0.5mm w/ occ larger grains
114	Tees Valley ware A	1	29	1	Base	Jar/CP	Smoothed int & ext surfaces; light sooting ext	E/MC13th – EC14th	A very distinctive sherd w/ smoothed surfaces; fine muscovite at surface
114	Tees Valley ware A type	1	16	1	Rim	Jar	U/Dec	E/MC13th – C14th	Wedge-shaped rim w/ dished internal surface & rounded lip
114	Tees Valley ware B	3	9	3	BS	Hollow ware	U/Dec; one w/ thin glaze fuming	LC13th – C14th	
114	Tees Valley ware B	1	3	1	BS	Hollow ware	Clear/brown glaze ext	LC13th – C14th	Coarser than typical Tees Valley ware B
114	Tees Valley ware B	1	5	1	BS	Hollow ware	Spots of glaze ext	LC13th – C14th	Darker orange fabric w/ sparse fine mica

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
114	Tees Valley ware B	1	1	1	BS	Hollow ware	Clear glaze ext	LC13th – C14th	Thin sherd
114	Tees Valley ware B/C	1	9	1	Rim	Jug	Clear glaze ext over thin buff slip	LC13th – C14th	Clubbed 'D' profile rim; contact scar on lip
114	Tees Valley ware B/C	1	5	1	BS	Hollow ware	Thin buff slip ext	LC13th – C14th	
114	Tees Valley ware B/C	1	1	1	BS	Hollow ware	Patchy clear glaze ext	LC13th – C14th	
114	TP Whiteware	1	0.5	1	BS	Hollow ware	Blue printed dendritic design int & ext	MC19th – EC20th	
114	Whiteware	1	2	1	Rim	Jar	U/Dec	M – LC19th	Groove below rim
117	Brandsby-type ware	1	11	1	BS	Hollow ware	Mottled green glaze ext w/ applied strips w/ dark brown glaze	c.1250 – c.1350	Pale grey int w/ a white ext margin; fine quartz
117	Brandsby-type ware	5	34	1	BS	Hollow ware	Applied strips and pellets under mottled green glaze ext	c.1250 – c.1350	A fine white fabric w/ common fine rounded quartz
117	Brandsby-type ware	7	32	7	BS	Hollow ware	Yellowish-green glaze w/ darker green mottling	c.1250 – c.1350	Possibly one vessel
117	Buff Coarse Sandy ware	2	13	2	BS	Hollow ware	U/Dec	LC11th – C13th	A white body w/ quartz up to 1mm, mainly finer; cf TVA
117	Buff Sandy ware	1	6	1	BS	Hollow ware	Sparse thin clear glaze on a rilled body	C12th – C13th	A fine white fabric w/ sparse fine quartz <0.2mm
117	Buff Sandy ware	4	7	4	BS	Hollow ware	Pale green glaze ext	C12th – C13th	Thin-walled vessel(s) in a very fine white fabric w/ fine quartz <0.2mm
117	Chalk-tempered Sandy ware	1	28	1	Rim	Jar	Small finger-tip impressions on lip	Medieval	A very hard, dense reduced fabric w/ buff-pink margins; hard, dense fabric w/ quartz & rare white chalk; everted rim w/ triangular lip on a long neck
117	Creamware	1	2	1	BS	Hollow ware	U/Dec	c.1740 – c.1820	
117	Oxidised Sandy ware	2	6	1	BS	U/ID	U/Dec; very heavily abraded	Medieval	A heavily abraded fragment; orange throughout w/ common quartz up to 1mm
117	Reduced Greenware	1	23	1	Base	Hollow ware	Dark green glaze on underside of base; contact scar	C14th – C15th	A thick base; grey w/a white ext margin; a hard, sandy fabric w/ abundant fine quartz

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
117	Tees Valley ware A	1	11	1	Base?	Hollow ware	U/Dec	E/MC13th – EC14th	Odd sherd; not certainly a base
117	Tees Valley ware A	3	34	3	BS	Hollow ware	Rare spots of clear splash glaze ext	E/MC13th – EC14th	
117	Tees Valley ware A	1	5	1	BS	Hollow ware	Patchy clear/green glaze ext	E/MC13th – EC14th	Slightly orange core w/ buff margins
117	Tees Valley ware B	10	30	10	BS	Hollow ware	One sherd w/ small spots of glaze	LC13th – C14th	Fine, hard, thin-walled sherds in fine red fabrics
117	Tees Valley ware B	1	35	1	Base	Jug/jar	Closely spaced pinched feet	LC13th – C14th	A hard red fabric but w/ a buff int surface; finger-nail marks int
117	Tees Valley ware B	1	17	1	Base	Jug/jar	Pinched foot	LC13th – C14th	A hard red fabric w/ fine quartz & round red grit; finger nail mark int
117	Tees Valley ware B	1	32	1	Rim	Jug	Deep collared rim; patchy thick clear glaze ext	LC13th – C14th	Hard fine red fabric w/ fine quartz but no red grit
117	Tees Valley ware B	1	27	1	Rim	Jar	A short collared rim & ridge on shoulder	LC13th – C14th	Inwardly-sloping rim; hard red fabric w/ common quartz & red grit up to 0.5mm
117	Tees Valley ware B	1	13	1	Rim	Jar	A small everted rim w/a prominent thick ridge below rim	LC13th – C14th	A hard, fine red fabric w/ occ white rock frags; ext margin is buff rather than orange; a very distinctive elaborate rim
117	Tees Valley ware B	1	2	1	Rim	Hollow ware	Spots of clear glaze ext	LC13th – C14th	A very small, flat-topped rim; form uncertain; a fine red fabric
117	Tees Valley ware B	18	32	18	BS	Hollow ware	Patchy clear glaze w/ dark brown mottling	LC13th – C14th	Hard, fine buff-orange fabric
117	Tees Valley ware B	5	18	5	BS	Hollow ware	Slightly rilling under clear glaze ext	LC13th – C14th	
117	Tees Valley ware B	2	5	2	BS	Hollow ware	Spots of splash glaze ext	LC13th – C14th	
117	Tees Valley ware B	1	6	1	BS	Hollow ware	U/Dec	LC13th – C14th	
117	Tees Valley ware B type	1	5	1	BS	Hollow ware	U/Dec	LC13th – C14th	
117	Tees Valley ware B type	1	16	1	Handle	Jug	Clear glaze w/ green mottling on upper surface	LC13th – C14th	Hard orange fabric w/ fine quartz & occ red grit
118	Brandsby-type ware	3	11	1	BS	Hollow ware	Mottled green glaze ext	E/MC13th – C14th	

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
118	Chalk-tempered Sandy ware	1	13	1	BS	Hollow ware	Smoothed surfaces	Medieval	A very hard, dense reduced fabric w/ dull buff-orange int & ext margins; common quartz w/ angular quartz & rock & sparse white chalk
118	Early Reduced ware	1	3	1	Base	Hollow ware	U/Dec	C13th – C14th	Dark grey core w/ thin buff-orange margins
118	Tees Valley ware A type	1	11	1	Base	Jar/CP	U/Dec	E/MC13th – C14th	Thin base; sooted ext
118	Tees Valley ware A type	1	0.5	1	BS	Hollow ware	U/Dec	E/MC13th – C14th	
118	Tees Valley ware B	1	14	1	Base	Jug/jar	Pinched feet	LC13th – C14th	A hard red fabric w/ fine quartz & occ white grit up to 1mm
118	Tees Valley ware B	1	8	1	BS	Hollow ware	U/Dec	LC13th – C14th	Occasional large quartz
118	Tees Valley ware B	3	6	3	BS	Hollow ware	Patchy clear glaze ext	LC13th – C14th	
118	Tees Valley ware B/C	1	6	1	Rim	Jug	Thick buff slip int & ext; spots of clear splashed glaze on rim	LC13th – C14th	Thin-walled jug rim/neck w/ a thin pointed lip
121	Reduced Sandy ware	1	16	1	BS	Hollow ware	Shiny green glaze ext over incised chevrons w/ metallic glaze pellets	C13th – C14th	Decoration could be York Glazed type but the fabric is hard, fine and reduced w/ lighter margins; U/ID type
121	Tees Valley ware A	1	12	1	BS	Hollow ware	Prominent ridge ext, possibly part of a bifid rim	E/MC13th – EC14th	
121	Tees Valley ware B	1	6	1	BS	Hollow ware	U/Dec	LC13th – C14th	Fine quartz & red grit up to 0.5mm, rarely larger
121	Tees Valley ware B/C	1	10	1	BS	Hollow ware	Thin buff slip on an orange body	LC13th – C14th	A fine red fabric w/ fine quartz & red grit
124	Oxidised Sandy ware	1	14	1	Rim	Bowl/jar	U/Dec	C12th – C14th	A hard orange fabric w/ a grey core; a thick, wedge-shaped flat-topped rim; moderate quartz & red rock w/ sparse white chalk <0.5mm
124	Reduced Greenware	1	1	1	BS	Hollow ware	Dark green glaze ext	LC13th – C14th	A grey fabric w/a pale grey ext margin; fine quartz; a sandy Reduced Greenware, probably early
124	Reduced Sandy ware	1	14	1	BS	Hollow ware	U/Dec (sooted ext)	Medieval	A distinctive smooth grey fabric w/ moderate, angular quartz & ?rock frags up to 0.5mm, rarely larger in a smooth rather than sandy body
124	Sponged ware	1	1	1	BS	Hollow ware	Blue sponging int	c.1830+	
124	Tees Valley type ware	1	3	1	BS	Hollow ware	Patchy green glaze ext	C13th – EC14th	Buff to pale orange sandy fabric w/ fine quartz

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
124	Tees Valley ware A	1	5	1	BS	Hollow ware	Spots of clear splash glaze ext	E/MC13th – EC14th	Pale orange fabric w/ a buff ext margin; fine quartz <0.5mm
124	Tees Valley ware A	1	2	1	BS	Hollow ware	Spots of clear splash glaze ext	E/MC13th – EC14th	Common fine round quartz & white rock <0.5mm
124	Tees Valley ware A	3	5	3	BS	Hollow ware	U/Dec	E/MC13th – EC14th	
124	Tees Valley ware A type	2	2	2	BS	Hollow ware	Patchy mottled green-brown glaze ext	E/MC13th – EC14th	A buff fabric w/ fine quartz <0.3mm & fine streaks of finer red and buff clay
124	Tees Valley ware B	1	1	1	BS	Hollow ware	Patchy clear glaze ext	LC13th – C14th	
124	Tees Valley ware B	1	1	1	BS	Hollow ware	Clear glaze ext	LC13th – C14th	A fine orange fabric
124	Tees Valley ware B/C	1	2	1	BS	Hollow ware	Thin buff ext margin	LC13th – C14th	
124	Tees Valley ware B/C	1	1	1	BS	Hollow ware	Clear to green glaze ext over a thin buff slip layer	LC13th – C14th	A fine orange fabric
124	Tees Valley ware B/C type	4	13	2	Rim	Jug?	Ridge & groove on neck; thin buff slip int & ext	LC13th – C14th	A bright orange sandy fabric w/ quartz & rock frags <0.5mm; a very simple tall rim w/ a plain, flat-topped rim
124	Whiteware	1	0.5	1	BS	Hollow ware	U/Dec	M – LC19th	
125	Banded ware	1	1	1	BS	Hollow ware	Blue-grey and brown bands ext	C19th	
	Total	542	2887.5	522					

Medieval and later pottery from Trench 2

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
200	Fine Redware	1	8	1	BS & handle	Mug/jug	Clear glaze int & ext	C18th	Hard, fine red fabric
200	Gritty ware	1	6	1	BS	Hollow ware	U/Dec	C12th – C14th	A very hard, dense fabric w/ common sub-angular quartz up to 1mm
200	Tees Valley ware A	1	6	1	BS	Hollow ware	Patchy green splash glaze ext	E/MC13th – C14th	A thin-walled vessel in a hard, dense buff fabric w/ common quartz up to 0.5mm, occ 1mm
200	Tees Valley ware A	1	4	1	BS	Hollow ware	Rilled body	E/MC13th – C14th	A thin-walled vessel in a hard, dense buff fabric w/ common quartz up to 0.5mm, occ 1mm
200	Tees Valley ware A	1	5	1	Base	Hollow ware	U/Dec	E/MC13th – C14th	

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
200	Tees Valley ware B	3	9	3	BS	Hollow ware	Clear glaze ext	LC13th – C14th	Thin-walled vessels; pale orange fabric w/ moderate quartz & rock frags up to 0.5mm
200	Tees Valley ware B type	2	3	2	BS	Hollow ware	U/Dec	LC13th – C14th	Finer than typical TVB
200	TP Bone China	1	8	1	Ring foot base	Cup/bowl	U/ID TP design ext	M – LC19th	Rounded ring foot
200	TP Whiteware	1	3	1	BS	Flatware	Willow	M – LC19th	
200	TP Whiteware	1	1	1	Rim	Plate	Willow border	M – LC19th	
200	Unglazed Red Earth-enware	1	8	1	Rim	Flowerpot	U/Dec	MC19th – EC20th	Collared rim
200	Whiteware	1	2	1	Handle	Mug/jug	Lobate handle	M – LC19th	
200	Whiteware	1	1	1	BS	Flatware	U/Dec	M – LC19th	
201	Brown Glazed Coarse-ware	1	2	1	Rim	Bowl	Brown glaze int	LC18th – C19th	Hard, fine red fabric
201	Buff-Orange Sandy ware	1	8	1	BS	Hollow ware	Patchy splash glaze int, rarely ext	LC12th – C13th	A fine fabric; grey core w/ buff-orange int & ext margins; moderate quartz up to 1mm, mainly finer
201	HM Buff Sandy ware	1	8	1	BS	Hollow ware	Spots of pale green splash glaze ext	LC11th – EC12th	A hard buff fabric, slightly coarser than TVA w/ common quartz up to 0.5mm, occ 1mm; thin-walled vessel
201	Late Redware type	1	2	1	BS	Hollow ware	Dark green mottled glaze int only	C18th	Possibly part of a base
201	Reduced Greenware	1	2	1	BS	Hollow ware	Green glaze ext	C14th	A sandy reduced body; earlier RG
201	Sandy ware	1	20	1	BS	Hollow ware	U/Dec; heavily abraded ext surface	Medieval	Grey core w/ dull orange margins; a smooth fabric w/ occ quartz up to 1mm; unidentified type
201	Spl Gl HM Sandy ware	1	25	1	BS	Hollow ware	Spots of green splash glaze ext	C12th – EC14th	A very hard, dense fabric; grey core w/ dull red margins; common fine quartz <0.5mm
201	Spl Gl HM Sandy ware	1	27	1	Base	Hollow ware	Spots & patches of green splash glaze ext	C12th – EC14th	A very hard, dense fabric; grey core w/ dull red margins; common fine quartz <0.5mm
201	Tees Valley ware A	1	1	1	BS	Hollow ware	Spots of clear splash glaze ext	E/MC13th – EC14th	Buff fabric w/ common quartz up to 0.5mm
201	Tees Valley ware A	2	5	2	BS	Hollow ware	Spots of clear splash glaze ext; rilled	E/MC13th – EC14th	Moderate quartz up to 0.5mm, rarely larger

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
201	Tees Valley ware A	2	14	2	BS	Hollow ware	U/Dec	E/MC13th – EC14th	Pale grey to buff fabrics
201	Tees Valley ware A type	1	3	1	BS	Hollow ware	Spots of pale green splash glaze ext	E/MC13th – C14th	Pale grey core w/. buff margins; slightly thicker than normal
201	Tees Valley ware A type	1	10	1	BS	Hollow ware	U/Dec	E/MC13th – C14th	Burnt & discoloured, sooted ext
201	Tees Valley ware A type	1	5	1	Lid-seated rim	Jar/CP	U/Dec; light sooting ext	E/MC13th – EC14th	Distinctive dished lid-seated rim; finer than typical TVA but w/ a similar range of fabrics
201	Tees Valley ware B	1	2	1	BS	Hollow ware	Clear glaze ext w/ sparse mottling	LC13th – C14th	A fine orange fabric w/ moderate quartz up to 0.5mm, rarely larger
201	Tees Valley ware B	2	9	2	BS	Hollow ware	U/Dec	LC13th – C14th	Fine orange sandy fabrics w/ fine quartz
201	Tees Valley ware B	1	3	1	BS	Hollow ware	Small patches of clear glaze ext	LC13th – C14th	A fine orange fabric w/ moderate fine quartz <0.5mm
201	Tees Valley ware B type	1	3	1	BS	Hollow ware	Thin red slip ext	LC13th – C14th	
201	Tees Valley ware B/C	1	3	1	BS	Hollow ware	Buff-white slip ext	LC13th – C14th	Orange fabric w/ fine quartz & occ white rock
201	Tees Valley ware B/C	1	2	1	BS	Hollow ware	Buff slip ext w/ spots of clear glaze ext	LC13th – C14th	Orange fabric w/ moderate quartz <0.5mm & rare white grit
201	Unglazed Red Earth-enware	1	2	1	BS	Hollow ware	U/Dec	C19th	
201	Whiteware	1	4	1	BS	Flatware	U/Dec	M – LC19th	Crazed & discoloured
201	Yellow Glazed Coarse-ware	1	11	1	BS	Dish/bowl	White slip int under clear glaze int	LC18th – C19th	Hard red fabric
204	Buff Sandy ware	1	16	1	Base/BS	Hollow ware	U/Dec	LC11th – C13th	Buff to grey fabric w/ moderate quartz up to 1mm
204	Chalk-tempered Sandy ware	1	3	1	BS	Hollow ware	U/Dec	C13th – C12th	A hard, dense reduced fabric w/ thin orange margins; fine quartz & sparse chalk <1mm; spalled
204	Oxidised Sandy ware	1	12	1	BS	Hollow ware	U/Dec	C12th – C14th	A hard, dense orange fabric w/ moderate, well-sorted quartz <0.5mm, occ up to 1mm
204	Reduced Greenware	1	1	1	BS	Hollow ware	Patchy decayed green glaze ext	LC13th – C14th	A fine, pale grey sandy fabric
205	Buff-grey Sandy ware	1	2	1	BS	Hollow ware	U/Dec; abraded surfaces	C12th – C13th?	A pale grey core w/ buff-orange margins; moderate quartz up to 0.2mm

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
205	Buff-grey Sandy ware	1	16	1	Rim	Jar	A round clubbed rim w/ finger impressions on lip	C12th – C13th?	An unusual fabric & form/decoration; grey core w/ dull buff-grey margins; dense fabric w/ moderate quartz & rock frags up to 1mm, rarely larger
205	HM Oxidised Sandy ware	1	51	1	Base/BS	Hollow ware	Patchy green splash glaze ext	LC11th – C13th	Orange body, grey where thicker; common quartz & rock up to 1mm, not as dense as WT types
205	Humberware type	1	4	1	Base	Hollow ware	Patchy green glaze on underside of base	LC13th – C14th	Very fine fabric; contact scar ext
205	Humberware type	1	5	1	BS	Hollow ware	Spots of decayed glaze ext	LC13th – C14th	Hard, fine fabric; grey w/ an orange ext margin
205	Oxidised Gritty ware	1	5	1	BS	Hollow ware	U/Dec	LC12th – C14th	Orange throughout w/ common quartz up to 1mm; light sooting ext
205	Reduced Sandy ware	1	1	1	BS	Hollow ware	U/Dec	C13th – C14th	A hard, dense fabric w/ only sparse quartz; grey core w/ thin orange margins
205	Reduced Sandy ware	1	6	1	BS	Hollow ware	Decayed green glaze ext	LC12th – C14th	A hard, dense fabric w/ common fine quartz up to 0.5mm
210	HM Buff Sandy ware	1	14	1	BS	Jar/CP	U/Dec	LC11th – C12th	Grey core w/ buff int & ext margins; moderate, well-sorted quartz & rock grains up to 1mm, not as dense as WT types
	Total	55	371	55					

Medieval and later pottery from Trench 3

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
300	Brown Glazed Coarse-ware	1	3	1	Base	Dish/bowl	Brown glaze int only	C18th – EC19th	A fine red fabric; a smaller vessel than typical BGCW pancheons
300	Brown Glazed Fineware type	1	1	1	BS	Dish	Clear glaze int only	C18th – C19th	Fine red fabric
300	Brown Salt Glazed Stoneware	1	1	1	BS	Hollow ware	Thin salt glaze int & ext	C18th	
300	Buff Sandy ware	1	4	1	BS	Hollow ware	Burnt ext	LC11th – C13th	Buff fabric w/ common quartz up to 0.5mm, rarely larger
300	Buff Sandy ware	2	2	2	BS	Hollow ware	U/Dec	LC11th – C13th	Pale orange-buff fabrics w/ fine quartz <0.5mm
300	Buff Sandy ware	1	2	1	BS	Hollow ware	Green glaze ext	C12th – C13th	A fine sandy buff fabric w/ common fine quartz & black grit <0.5mm

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
300	Buff Sandy ware	1	2	1	BS	Hollow ware	Green glaze ext	LC11th – C13th	A fine buff fabric w/ fine quartz & red grit <0.5mm
300	Buff Sandy ware type	1	0.5	1	BS	Hollow ware	Very heavily overfired; discoloured & blistered glaze on surfaces & edges	Medieval	A fine white fabric but overfired; waster
300	Buff-Orange Sandy ware	1	2	1	BS	Hollow ware	U/Dec	LC11th – C13th	A fine, hard pale orange to buff fabric w/ fine quartz & rock frags <0.5mm
300	Cistercian ware	1	1	1	BS	Cup/tyg	Applied pipeclay strip ext	c.1450 – c.1600	
300	Colour Glazed ware	1	2	1	BS	Hollow ware	White fabric; brown glaze int & ext w/ yellow design ext	C19th	
300	Creamware	1	1	1	BS	Hollow ware	U/Dec	c.1740 - c.1820	
300	Creamware	1	0.5	1	Rim	Hollow ware	U/Dec	c.1740 – c.1820	
300	Creamware	1	0.5	1	BS	Hollow ware	U/Dec	c.1740 – c.1820	
300	Fine Redware	2	2	1	BS	Hollow ware	Clear glaze int & ext	C18th	Fine red fabric
300	Fine Redware	2	5	2	BS	Hollow ware	Clear glaze int & ext	C18th	Fine red fabric
300	Green Glazed Sandy ware	1	25	1	Rim	Bowl	Thick green glaze int & on rim	LC15th – C17th	Fine pale orange fabric; clubbed triangular rim
300	Green Glazed Sandy ware	1	1	1	BS	Hollow ware	Green glaze int & ext	C15th – C16th	A thin-walled vessel in a fine, soft buff fabric
300	Gritty ware	1	11	1	Base	Jar/CP	U/Dec	LC11th – C13th	A typical gritty ware base; heavily burnt throughout; at the finer end of the spectrum
300	Humberware type	3	9	2	BS	Hollow ware	Patchy green glaze ext	LC13th – C15th	A sandy Humberware
300	Late Medieval Sandy ware	2	3	2	BS	Hollow ware	Dark green glaze ext	LC13th – EC15th	A pale grey fabric w/ a darker grey core; sparse fine quartz
300	Orange-buff Sandy ware	1	3	1	BS	Hollow ware	U/Dec	LC11th – C13th	A pale orange fabric w/ a buff int margin; common quartz & sparse rock up to 0.5mm, occ up to 1mm
300	Oxidised Gritty ware	1	5	1	BS	Hollow ware	U/Dec (abraded surfaces)	LC12th – C13th	Thin-walled vessel in an orange fabric w/ common sub-angular quartz up to 1mm
300	Oxidised Gritty ware	1	3	1	Rim	Jar/CP?	U/Dec (abraded surfaces)	LC12th – C13th	A small clubbed 'D' shaped rim; common quartz up to 0.5mm, occ 1mm

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
300	Oxidised Sandy ware	2	5	2	BS	Hollow ware	U/Dec	LC11th – C13th	Grey core w/ orange int & ext margins; fine quartz <0.5mm
300	Oxidised Sandy ware	1	1	1	BS	Hollow ware	U/Dec	Medieval	Grey core w/ orange margins
300	Pearlware	1	0.5	1	BS	Flatware	U/Dec	c.1780 – c.1840	
300	Porcelain	1	15	1	Fragment	Figurine	Small porcelain figure; naked male figure w/ pot belly	C19th	Small figurine; 44.5mm from ankles to neck; head & feet missing
300	Reduced Greenware	1	51	1	Handle	Jug	Green glaze ext	C14th – C15th	A very fine fabric, reduced throughout
300	Slipware	1	8	1	BS	Hollow ware	Short, irregular, white trailed slip lines; rilled band; clear glaze int & ext	C18th – EC19th	Fine red fabric
300	Spl Gl White Sandy ware	1	12	1	BS	Hollow ware	Patchy pale green splash glaze ext	LC11th – E/MC13th	A fine white fabric w/ fine quartz up to 0.5mm, mainly finer
300	Sponged ware	1	1	1	BS	Hollow ware	Blue sponging ext; cellular pattern	c.1830+	
300	Tees Valley ware B/C	1	3	1	BS/Flake	Hollow ware	White slip coating ext; int surface missing	LC13th – C14th	External flake
300	Tees Valley ware B/C	1	1	1	BS	Hollow ware	Thin buff slip ext	LC13th – C14th	
300	TP Whiteware	1	9	1	BS	Plate	Floral border; Asiatic Pheasants	MC19th – EC20th	
300	TP Whiteware	1	3	1	Footring base	Plate	Flaky glaze int; floral design	MC19th – EC20th	
300	TP Whiteware	2	1	1	Rim	Cup/bowl	U/ID TP design int & ext; floral / geometric pattern	M – LC19th	
300	TP Whiteware	1	1	1	BS	Cup/bowl	U/ID TP design ext	c.1780 – c.1840	
300	Whiteware	2	2	2	Rim	Small jar	U/Dec	C19th	
300	Whiteware	1	1	1	BS	Hollow ware	U/Dec	C19th	
300	Whiteware	1	1	1	BS	Hollow ware	U/Dec	M – LC19th	
302	Buff-grey Sandy ware	1	0.5	1	Flake	U/ID	U/Dec; no external surface	Medieval	Abraded fragment

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
302	Cistercian ware	1	11	1	BS	Cup/tyg	Mottled brown glaze int & ext	c.1450 – c.1600	
302	Creamware	1	7	1	Rim	Plate	Beaded rim	c.1740 – c.1820	
302	Humberware type	2	64	1	BS	Hollow ware	Spots of overfired dark glaze ext	LC13th – EC15th	Overfired & slightly distorted body sherd; dense grey fabric w/ a thin red ext margin; fine quartz <0.2mm
302	Late Medieval Sandy ware	1	56	1	Base	Hollow ware	Small spots of overfired dark glaze on underside of base	Later medieval	An unusual very fine, pale grey fabric w/ occ quartz & rock
302	Late Medieval Sandy ware	1	4	1	BS	Hollow ware	U/Dec	C14th – EC15th	Grey core w/ thin dull red int & ext margins; a hard, dense fabric w/ moderate, well-sorted quartz up to 0.5mm
302	Oxidised Sandy ware	1	25	1	Base	Hollow ware	Thin, hard mottled dark green-brown glaze on underside	LC13th – C14th	A fine dull orange to brown fabric moderate, well-sorted quartz <0.5mm
302	Oxidised Sandy ware	2	14	2	BS	Hollow ware	U/Dec (abraded surfaces)	Medieval	Pale grey int w/ an orange ext margin; fine quartz <0.5mm
302	Oxidised Sandy ware	1	3	1	BS	Hollow ware	U/Dec (heavily abraded)	Medieval	A heavily abraded bright orange sandy fabric w/ moderate quartz up to 0.5mm, occ 1mm
302	Reduced Greenware	2	6	2	BS	Hollow ware	Green glaze ext	LC13th – C14th	Grey core w/ buff-grey margins; soft, sandy fabric
302	Reduced Greenware type	1	50	1	Base	Drinking jug	Patchy, very thin green glaze ext w/ hand prints	C14th – C15th	Dark grey w/ an orange ext margin
302	Tees Valley ware A	1	2	1	BS	Hollow ware	Thin clear glaze ext	E/MC13th – C14th	Thin sherd
302	Tees Valley ware A type	3	38	3	BS	Hollow ware	U/Dec	E/MC13th – EC14th	A buff fabric, somewhat coarser than typical Tees Valley ware A; common quartz & round red grit up to 1mm, occ larger
302	Tees Valley ware B	1	15	1	Rim	Jar	U/Dec; finely finished	LC13th – C14th	A distinctive wedge-shaped rim; cf Wrathmell 1987: Fig. 17; 17, 23
302	Tees Valley ware B	1	23	1	Rim	Jar	Bifid-type rim w/ prominent thumb-impressed ext ridge	LC13th – C14th	Orange throughout w/ a lighter orange-buff margin
302	Tees Valley ware B	1	2	1	BS	Hollow ware	Patchy clear splash glaze ext	LC13th – C14th	

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
302	Tees Valley ware B	3	4	3	BS	Hollow ware	U/Dec	LC13th – C14th	
302	Tees Valley ware B type	1	7	1	Decorative element	Jug?	Green glaze ext, patchy clear/green glaze int	LC13th – C14th	Could be part of a spout?
302	Tees Valley ware B type	1	5	1	Rod handle	Jug	U/Dec	LC13th – C14th	Pale w/ grey core w/ dull orange margins
302	Tees Valley ware B/C	2	2	2	BS	Hollow ware	Buff slip ext on a red body	LC13th – C14th	
302	Tees Valley ware B/C	1	1	1	BS	Hollow ware	Thin buff ext margin under mottled green glaze ext	LC13th – C14th	
302	Tees Valley ware B/C type	1	9	1	BS	Hollow ware	Thick buff slip ext on a soft orange body; patchy green glaze ext	LC13th – C14th	A slightly unusual fabric
303	Cistercian ware	1	9	1	BS & handle	Cup/tyg	Applied horizontal pipe-clay strip w/ vertical strips; rouletted	c.1450 – c.1600	Fine red fabric
303	Cistercian ware	1	15	1	Footed base	Cup/tyg	Brown glaze int & ext	c.1450 – c.1600	Glaze pooling int; contact scar on underside of base
303	Cistercian ware	1	6	1	BS & handle	Cup/tyg	Hard brown glaze int & ext	c.1450 – c.1600	
303	Oxidised Sandy ware	1	7	1	BS	Hollow ware	U/Dec	C12th – C14th	Could be TVB
303	Reduced Greenware	3	19	3	BS	Hollow ware	Green glaze ext	C14th – C15th	Fine grey fabric
303	Reduced Sandy ware	1	3	1	BS	Hollow ware	U/Dec	C13th – C14th	A grey core w/ dull orange int & ext margins; A hard, dense fabric w/ moderate quartz & occ angular rock frags up to 1mm
303	Reduced Sandy ware	3	22	3	BS	Hollow ware	U/Dec; pitted & abraded ext surfaces	Medieval	A pale grey fabric w/ a pale orange int margin; moderate sub-round quartz up to 0.5mm
303	Tees Valley ware B	2	3	2	BS	Hollow ware	Dark green glaze ext	LC13th – C14th	A hard orange fabric w/ fine quartz <0.2mm
303	Tees Valley ware B type	1	3	1	Rim/spout	Jug	Brown glaze ext	LC13th – C14th	A soft orange fabric; somewhat softer and finer than typical TVB
303	Tees Valley ware B/C	1	3	1	BS	Hollow ware	Buff slip ext; clear glaze w/ dark green mottling & pellets	LC13th – C14th	Fine orange fabric
303	Tees Valley ware B/C	1	1	1	BS	Hollow ware	Buff slip ext under green glaze ext	LC13th – C14th	A soft fabric; abraded edges & surfaces

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
303	Tees Valley ware B/C	1	1	1	BS	Hollow ware	Buff slip ext w/ sparse thin glaze ext	LC13th – C14th	
303	Tees Valley ware B/C	1	3	1	BS	Hollow ware	Thin buff slip ext	LC13th – C14th	
303	Tees Valley ware B/C	1	2	1	BS	Hollow ware	Thin buff slip coating ext	LC13th – C14th	
303	Tees Valley ware B/C	1	1	1	BS	Hollow ware	Thin buff slip w/ mottled green glaze ext	LC13th – C14th	
306	Tees Valley ware B type	1	8	1	BS	Hollow ware	Base	LC13th – C14th	A bright orange fabric w/ fine quartz & occ round red grit <0.5mm; rare red grit up to 2mm; softer than typical TVB
307	Tees Valley ware B	1	20	1	Rod handle	Jug	U/Dec	LC13th – C14th	
308	Tees Valley ware B/C	1	8	1	Rim	Jug	White slip int & ext on a red body	LC13th – C14th	Rim w/ a thin lip and external ledge & thin lip
308	Tees Valley ware B/C	1	3	1	BS	Hollow ware	White slip ext	LC13th – C14th	
308	Tees Valley ware B/C	1	2	1	BS	Hollow ware	Thin buff slip ext under green glaze; abraded	LC13th – C14th	
312	Reduced Greenware	1	8	1	Base	Hollow ware	Dull green glaze ext	LC13th – C15th	A hard, fine black fabric
300/301	Buff Sandy ware	1	3	1	BS	Hollow ware	Patchy glaze fuming ext	LC12th – C13th	A fine buff fabric w/ fine quartz <0.2mm & red grit up to 0.5mm, occ larger
300/301	Buff-White Gritty ware	1	14	1	BS	Hollow ware	Green glazed where not abraded	LC12th – C14th	Abraded sherd; buff to pale grey w/ common, well-sorted round quartz up to 1mm, occ larger
300/301	Creamware	1	1	1	BS	Cup/bowl	U/Dec	c.1740 – c.1820	Thin body sherd
300/301	Fine Redware	1	15	1	Footed base	Hollow ware	Clear glaze int & ext	C18th	Fine red fabric
300/301	Fine Redware	2	5	2	BS	Hollow ware	Clear glaze int & ext	C18th	Fine red fabric
300/301	Fine Redware	1	7	1	Strap handle	Hollow ware	Clear glaze int & ext	C18th	Fine red fabric
300/301	Pearlware	1	0.5	1	BS	U/ID	Hand-painted blue linear design on one side	c.1780 – c.1840	
300/301	Tees Valley ware A	1	3	1	BS	Hollow ware	Patchy clear glaze ext	E/MC13th – EC14th	A fine buff fabric w/ sparse/moderate quartz <0.2mm
300/301	Tees Valley ware B	1	2	1	BS	Hollow ware	U/Dec	LC13th – C14th	A fine orange fabric w/ irregular fine quartz & occ rock frags

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
300/301	Whiteware	1	4	1	Rim	Mug/jug	Red line below rim; moulded daisy below rim & painted line	LC19th – EC20th	
Spoil heap	Tees Valley ware B	1	1	1	BS/Flake	Hollow ware	Small spots of clear glaze ext	LC13th – C14th	
U/S	Bone China	1	3	1	Rim	Cup	U/Dec	MC19th – EC20th	Part of a handle scar ext
U/S	Brown Glazed Coarse-ware	1	6	1	BS	Hollow ware	Brown glaze int & ext	C19th	Fine red fabric
U/S	Brown Glazed Coarse-ware	1	1	1	BS	Hollow ware	Brown glaze ext over rilled body	C18th – C19th	Fine red fabric
U/S	Creamware	1	2	1	BS	Flatware	U/Dec	c.1740 – c.1820	
U/S	Porcelain	1	7	1	Footring base	Plate	U/Dec	MC19th – EC20th	
U/S	Redware	1	1	1	BS	Hollow ware	Clear glaze int & ext	C17th – EC18th	
U/S	Tees Valley ware A type	1	2	1	BS	Hollow ware	U/Dec	E/C13th – EC14th	Fine buff-orange fabric w/ fine quartz & occ rock frags
U/S	Tees Valley ware B	1	2	1	BS	Hollow ware	Dark green mottled glaze ext	LC13th – C14th	A hard orange fabric w/ fine quartz & occ rock up to 1mm, mainly finer
U/S	Tripod spur	1	1	1	Fragment	Tripod spur	N/A	LC18th – C19th	Production waste
U/S	Whiteware	2	2	2	BS	Flatware?	U/Dec	MC19th – EC20th	
	Total	129	783	125					

Medieval and later pottery from Trench 4

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
400	Bone China	3	3	3	BS	Cup/bowl	U/Dec	MC19th – EC20th	
400	Bone China	1	0.5	1	Rim	Cup/bowl	U/Dec	MC19th – EC20th	
400	Buff Sandy ware	1	10	1	BS	Hollow ware	Patchy green splash glaze ext	LC12th – C14th	A buff-white fabric w/ fine quartz up to 0.5mm, occ 1mm
400	Buff-White Sandy ware	1	5	1	BS	Hollow ware	Green glaze ext	C13th – C14th	A buff-white fabric w/ common quartz up to 0.3mm, occ grains up to 1mm
400	Chalk-tempered Sandy ware	1	45	1	Base	Hollow ware	Spots of splash glaze on underside of base	C12th – C14th	A very hard reduced fabric w/ a buff int margin; common quartz up to 1mm, c larger & rare white chalky inclusions

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
400	Creamware	1	1	1	BS	Cup/bowl	U/Dec	c.1740 – c.1820	
400	Mocha ware	1	1	1	BS	Hollow ware	Pale cane coloured body w/ a white slip band & part of blue tree	C19th – EC20th	
400	Stoneware	1	3	1	Base	Jam jar	Fluted ext surface	C19th – EC20th	
400	Tees Valley ware A type	1	20	1	Rim	Hollow ware	Everted rim w/ prominent ext ridge	E/MC13th – EC14th	A grey-white sandy fabric, slightly coarser than typical but the form resembles TVA
400	TP Bone China	1	1	1	BS	Cup/bowl	U/ID TP design ext	C19th	
400	TP Whiteware	1	2	1	Footring base	Plate	Willow	M – LC19th	
400	TP Whiteware	1	1	1	BS	Flatware	Willow	M – LC19th	
400	TP Whiteware	1	0.5	1	Rim	Flatware	U/ID TP design int	M – LC19th	
400	TP Whiteware	1	0.25	1	Chip	U	U/ID TP design	M – LC19th	
400	Unglazed Red Earth-enware	1	1	1	BS/Flake	U/ID	U/Dec	MC19th – C20th	
400	Whiteware	2	1	2	BS	Hollow ware	U/Dec	M – LC19th	
400	Yellow Glazed Coarse-ware	1	1	1	BS	Dish	White slip int under clear glaze	C19th – EC20th	
401	Reduced Sandy ware	1	2	1	BS	Hollow ware	Pale green glaze ext	C13th – C14th	Grey core w/ pale grey margins; fine quartz w/ occ black grit
401	Tees Valley A type ware	2	14	1	BS	Hollow ware	Patchy clear to green splash glaze ext	EC13th – EC14th	A white sandy fabric w/ quartz & rock frags 1mm+ but mainly finer
401	Tees Valley ware A	1	2	1	BS	Hollow ware	Yellow to green mottled glaze ext	EC13th – EC14th	A fine white fabric w/ occ grains up to 0.5mm
401	Tees Valley ware A	1	2	1	BS	Hollow ware	U/Dec; light sooting ext	E/MC13th – EC14th	A fine white sandy fabric w/ common fine quartz occ up to 1mm
401	Whiteware	1	1	1	BS/Flake	U/ID	U/Dec	M – LC19th	
403	Whiteware	1	1	1	Handle	Cup	U/Dec	M – LC19th	Small cup handle
403	Whiteware	1	0.5	1	BS	Hollow ware	Relief moulded ext surface	M – LC19th	

Context	Type	No	Wt	ENV	Part	Form	Decoration	Date range	Notes
403	Whiteware	1	1	1	BS	Hollow ware	Burnt & discoloured surfaces	M – LC19th	
406	Bone China	1	2	1	BS	Hollow ware	Blue sponging ext	c.1830+	
406	Buff Sandy ware	1	5	1	BS	Hollow ware	Mottled yellow-green glaze ext; single line of square rouletting	C12th – C13th	A fine buff fabric w/ common quartz up to 0.8mm
406	Reduced Greenware	1	8	1	BS	Hollow ware	Dark green glaze ext; short vertical impressed lines between raised ridges	LC13th – C15th	Hard black fabric w/ a thin, pale grey ext margin
410	Buff Sandy ware	1	29	1	BS	Hollow ware	Rare spots of clear glaze (?splashed) ext; knife trimmed int	C12th – C14th	A hard buff fabric w/ moderate sub-round quartz up to 0.5mm, occ 1mm
U/S	Creamware	1	1	1	BS	Flatware	U/Dec	c.1740 – c.1820	
U/S	Reduced Sandy ware	1	9	1	BS	Hollow ware	Rilled ext surface	Medieval	Overfired or burnt sherd w/ black deposit int; common fine quartz up to 0.5mm
	Total	35	173.75	34					

Summary of medieval and later pottery by ware/type

Type	Estimated (maximum) number of vessels	% of total
Banded ware	1	0.13
Bone China	15	2
Brandsby-type ware	13	1.7
Brown Glazed Coarseware	4	0.5
Brown Glazed Coarseware type	1	0.13
Brown Glazed Fineware type	1	0.13
Brown Salt Glazed Stoneware	1	0.13
Buff Coarse Sandy ware	3	0.4
Buff Gritty ware	1	0.13
Buff Sandy ware	27	3.6
Buff Sandy ware type	1	0.13
Buff-Grey Sandy ware	5	0.6
Buff-Grey Sandy ware type	1	0.13
Buff-Orange Sandy ware	3	0.4
Buff-White Gritty ware	7	0.95
Buff-White Sandy ware	4	0.5
Cane Coloured ware	2	0.3
Chalk-tempered Sandy ware	12	1.6
Chalk-tempered Sandy ware type	1	0.13
Cistercian ware	5	0.6
Colour Glazed ware	1	0.13
Creamware	13	1.7
Creamware?	1	0.13
Early Reduced Greenware	7	0.95
Early Reduced ware	4	0.5

Type	Estimated (maximum) number of vessels	% of total
Early York Glazed ware	1	0.13
Fine Redware	9	1.2
Green Glazed Sandy ware	4	0.5
Gritty ware	2	0.3
HM Buff Sandy ware	2	0.3
HM Gritty ware	1	0.13
HM Oxidised Sandy ware	1	0.13
Humberware type	5	0.6
Late Blackware type	1	0.13
Late Medieval Sandy ware	4	0.5
Late Medieval Sandy ware?	1	0.13
Late Redware type	1	0.13
Mocha ware	1	0.13
Mottled ware type	1	0.13
Mottled Yellow Glazed Coarseware	1	0.13
Orange-buff Sandy ware	1	0.13
Oxidised Coarse Sandy ware	1	0.13
Oxidised Gritty ware	4	0.54
Oxidised Sandy ware	18	wit
Pearlware	2	0.3
Porcelain	5	0.6
Reduced Greenware	21	2.8
Reduced Greenware type	2	0.3
Reduced Sandy ware	17	2.3
Redware	1	0.13

Type	Estimated (maximum) number of vessels	% of total
Redware type	1	0.13
Refined earthenware	1	0.13
Sandy ware	2	0.3
Scarborough 1 ware	2	0.3
Scarborough 2 ware	1	0.13
Slipware	2	0.3
Spl Gl HM Sandy ware	2	0.3
Spl Gl White Sandy ware	1	0.13
Splash Glazed Sandy ware	1	0.13
Sponged ware	2	0.3
Stoneware	1	0.13
Tees Valley type ware	3	0.4
Tees Valley ware A	104	14.1
Tees Valley ware A type	32	4.3
Tees Valley ware A type?	1	0.13
Tees Valley ware B	182	24.7
Tees Valley ware B type	26	3.5
Tees Valley ware B/C	47	6.4
Tees Valley ware B/C type	4	0.5
TP Bone China	5	0.6
TP Whiteware	24	3.2
Tripod spur	1	0.13
U/ID Sandy ware	2	0.3
Unglazed Red Earthenware	4	0.5
White Salt Glazed Stoneware	2	0.3
Whiteware	35	4.7
Yellow Glazed Coarseware	4	0.5
Yellow ware	1	0.13
York Glazed ware	1	0.13
York Glazed ware type	2	0.3
Total	737	96.5

APPENDIX 4 — FAUNAL REMAINS ASSESSMENT DATA TABLES

Trench	Context	Horse/ donkey/ mule	Cattle	Red deer	Red/ fallow deer	Fallow deer	Roe deer	Deer family	Sheep/ goat	Pig	Cat	European hare	European rabbit	Ungulate		Mammal					Total
														Large	Small	Large	Medium-large	Medium	Medium-small	Small	
1	100		1														7	4			12
	102	1	1						3	1						4	6	13	1		30
	104	1	9	2					6	9				2	2	17	41	11			100
	105		9	2					8	21			3	2	6	56	69	88	2		266
	106		1	1		1			1	5				2	1	12	18	40	1		83
	108		1													3	6	12			22
	109		11						16						2	3	9	25			66
	110		5						3	6						20	16	42			92
	111									1						2	4	3	5		15
	114			1		1			2	2				1		2	7	9			25
	117		3							3						14	9	2	1	1	33
	118		1	1					2							1	8	4			17
	121		1													4		3			8
	124								6							6	3	19			34
	125															1		1			2
2	200		1	1	1				3	7						3		11			27
	201	5	13				1		7	8		1			1	9	12	14			71
	204								3	4						13	11	8			39
	205		5	2				1	10	35		1				37	52	57			200
	210		5						1	2				4		3	8	4	1		28
3	300		1			1			8	1		1		5	2	7	12	15			53

Trench	Context	Horse/ donkey/ mule	Cattle	Red deer	Red/ fallow deer	Fallow deer	Roe deer	Deer family	Sheep/ goat	Pig	Cat	European hare	European rabbit	Ungulate		Mammal					Total
														Large	Small	Large	Medium-large	Medium	Medium-small	Small	
	301								2	1						2					5
	302	1	8						7	1				1		35	11	10			74
	303	1	17			1	2		15	1	3			2	15	14	30	8			109
	306															1					1
	308		10	1														6			17
	309																1				1
4	400		2						2	1						5	3	12			25
	401									2						1	8	5			16
	402								1								2				3
	410															2		2			4
Unstratified									2	3								2			7
Total		9	105	11	1	4	3	1	108	114	3	3	3	19	29	277	353	430	11	1	1485

Summary of mammal remains identified to genus level or lower

Summary of bird and fish remains identified to genus level or lower

Trench	Context	Birds									Fish					Total
		Chicken	Pheasant	Galliformes	Goose	Duck family	Anseriformes	Common crane	cf. Eurasian woodcock	Medium bird	Atlantic cod	Cod family	Gadiformes	Large fish	Medium fish	
1	102	1		1	1									1		4
	104	2		2												4
	105	1		1			2			1	2	1		1	1	10
	106	2								2	1			1		6
	108														1	1
	109		1	1	1											3
	110			2						2	1			1		6
	114	1		1										1		3
	117	1		1							1			2		5
	118			3	1											4
	124									1			1			2
2	201	2						1								3
	204			2				4								6
	205		1	3												4
3	300			1												1
	303	1				4										5
4	400		2													2
	401								1		1					2
Unstratified				1	1											2
Total		11	4	19	4	4	2	5	1	6	6	1	1	7	2	73

Trench	Context	Bivalves			Gastropods			Total
		Edible oyster	Mussel	Common cockle	Periwinkle	Flat periwinkle	Periwinkle sp.	
1	100		1					1
	105	4						4
	106		1					1
	109		1					1
	111		1					1
3	302	1						1
	303	5						5
	308	1						1
4	400				6	1	4	11
	410	2						2
Unstratified				1				1
Total		13	4	1	6	1	4	29

Summary of marine mollusc remains identified

Trench	Context	Species	Element	Cut	Chop	Saw	Cut + saw	Worked	Total
1	102	Large mammal	Rib	1					1
		Medium mammal	Long bone shaft		1				1
	104	Large ungulate	Pelvis		1				1
		Medium/large mammal	Rib	1	1				2
		Large mammal	Vertebra	1					1
		Medium mammal	Pelvis	2					2
		Pig	Pelvis		1				1
		Large ungulate	Mandible		1				1
		Sheep/goat	Tibia	1					1
		Red deer	Calcaneus	1					1

Summary of vertebrate remains with butchery evidence

Trench	Context	Species	Element	Cut	Chop	Saw	Cut + saw	Worked	Total
1	105	Pig	Metacarpal 3	1					1
		Medium mammal	Long bone shaft	1					1
		Cattle	Ulna	1					1
		Pig	Humerus	1	1				2
		Medium/large mammal	Unidentified fragment	1					1
		Large mammal	Vertebra		1				1
		Medium mammal	Vertebra		1				1
		Sheep/goat	Phalanx 2		1				1
		Medium mammal	Tail vertebra	1					1
		Pig	Pelvis	1	1				2
		Large mammal	Rib	1			1		2
		Medium mammal	Rib	3					3
		Pig	Scapula		1				1
	106	Large mammal	Long bone shaft					1	1
		Medium mammal	Long bone shaft	1					1
		Medium mammal	Rib	1					1
	108	Large mammal	Long bone shaft	1					1
		Medium mammal	Unidentified fragment	1					1
	109	Medium/large mammal	Long bone shaft	1					1
	110	Medium mammal	Rib	2					2
		Large mammal	Rib	3					3
		Medium mammal	Long bone shaft		1				1
		Sheep/goat	Astragalus	1					1

Trench	Context	Species	Element	Cut	Chop	Saw	Cut + saw	Worked	Total
1	111	Small/medium mammal	Rib	1					1
		Medium mammal	Rib	1					1
	114	Medium mammal	Rib	1					1
	117	Large mammal	Rib	1					1
		Large mammal	Long bone shaft		1				1
		Small/medium mammal	Scapula spine		1				1
	118	Medium mammal	Rib		1				1
2	201	Large mammal	Vertebra		1				1
		Pig	Pelvis	1					1
		Medium mammal	Rib		3				3
	204	Common crane	Tibiotarsus	1					1
		Medium/large mammal	Unidentified fragment	1					1
	205	Medium/large mammal	Rib	1					1
		Medium mammal	Long bone shaft	1					1
		Pig	Pelvis	1					1
		Red deer	Pelvis	1					1
		Large mammal	Rib	1					1
		Cattle	Sacrum		1				1
3	300	Medium mammal	Rib	1					1
		Fallow deer	Humerus			1			1
		Sheep/goat	Tibia		1				1
		Large ungulate	Scapula	1					1
	302	Large mammal	Unidentified fragment		1				1

Trench	Context	Species	Element	Cut	Chop	Saw	Cut + saw	Worked	Total
3	302	Large mammal	Rib	1					1
	303	Cattle	Metatarsal	1					1
		Cattle	Horncore			1			1
		Roe deer	Pelvis		1				1
		Pig	Mandible	1					1
		Medium mammal	Rib	1					1
		Large ungulate	Mandible		1				1
	308	Cattle	Femur		1				1
4	400	Sheep/goat	Pelvis			1			1
		Medium mammal	Vertebra			1			1
	401	Pig	Mandible	1					1
		Pig	Scapula	1					1
		Medium/large mammal	Rib	1					1
		Atlantic cod	Vomer		1				1
Total				50	26	4	1	1	82

Summary of vertebrate remains with pathology

Trench	Context	Species	Element	Side	Pathology
1	104	Large ungulate	Pelvis	L	Eburnation and wear on the acetabulum
		Red deer	Calcaneus	R	Pathology on zone 3
	106	Chicken	Tarso-metatarsus	L	Probably male, pathology related with the spur
2	205	Pig	Metatarsal 3/4	R	Pathology on proximal surface
			Metacarpal 3	R	Small pathology on the proximal surface

APPENDIX 5 — CERAMIC AND STONE BUILDING MATERIAL DATA

ID	Context	Period	Type	Fabric code	Corners	Edges	Count	Weight	Length	Breadth	Height	Flange height	Reused	Mortar	Overfired	Keying	Impressions	Reduced Core	Comments
728	0	Unknown	Mortar	Grey-brown			3	6.7					X	X	X	X	X	X	
729	104	Unknown	Mortar/Concrete				1	4.6					X	X	X	X	X	X	Very hard, large inclusions. Fragment of oxidised CBM attached.
730	106	Unknown	Mortar	Lime-rich, cream-white			1	6.3					X	X	X	X	X	X	
731	109	Unknown	Mortar	Lime-rich, cream-grey			1	2.4					X	X	X	X	X	X	
732	205	Unknown	Mortar	Lime-rich, pale brown to grey			1	30					X	X	X	X	Y	X	Lump. Possible structural impressions.
733	300	Unknown	Plain wall plaster	Lime-rich, pale brown to white			1	6.5					X	X	X	X	X	X	Plain wall plaster.
734	300	Unknown	Mortar	Lime-rich, pale brown to white			1	42.2			22.5		X	X	X	X	X	X	Possible finished surface?
735	301	Unknown	Stone-worked	Granite?	2	3	1	150.5			51		X	X	X	X	X	X	Fragment of worked stone (block?) with small piece of CBM (brick or tile) attached.
736	302	Unknown	Mortar	Lime-rich, pale brown			1	44.5			20.2		X	X	X	X	X	X	Finished surface.
737	302	Unknown	Mortar	Lime-rich, pale brown	1	2	1	100.3					X	X	X	X	Y	X	Right-angle fragment with structural impressions.
738	303	Unknown	Mortar	Lime-rich, pale brown			3	1.6					X	X	X	X	X	X	
739	303	Unknown	Limestone	Fine, limestone			1	17.4					X	X	X	X	X	X	Egg-shaped, fine limestone item. Heat affected to one side. Possibly natural?
740	303	Unknown	Mortar	Lime-rich, coarse, pale brown to white			1	16.2					X	X	X	X	X	X	
741	0	Unknown	Undiagnostic	Oxidised			8	6.4					X	X	X	X	X	X	Brick/tile.
742	100	Post-medieval/Modern	Brick/Tile	Oxidised			3	48.5					X	Y	X	X	X	X	
743	102	Unknown	Undiagnostic	Oxidised			2	1.6					X	X	X	X	X	X	
744	102	Medieval/Post-medieval	Tile	Oxidised			1	6			15.6		X	X	X	X	X	X	

ID	Context	Period	Type	Fabric code	Corners	Edges	Count	Weight	Length	Breadth	Height	Flange height	Reused	Mortar	Overfired	Keying	Impressions	Reduced Core	Comments
745	105	Unknown	Undiagnostic	Oxidised			1	2.6					X	X	X	X	X	X	
746	105	Post-medie-val/Modern	Brick/Tile	Oxidised			1	3.3					X	X	X	X	X	X	
747	105	Unknown	Undiagnostic	Oxidised			1	2.5					X	X	X	X	X	X	
748	105	Post-medieval	Brick	Oxidised	1	2	2	112.1			53.7		X	X	X	X	X	X	Hand-made brick; relatively crude. Possibly 17th/18th century.
749	106	Unknown	Undiagnostic	Oxidised			1	10					X	X	X	X	X	X	
750	200	Unknown	Undiagnostic	Oxidised			1	2.2					X	X	X	X	X	X	
751	200	Unknown	Tile	Oxidised			1	23.2			14.9		X	X	X	X	X	X	Curved tile or pantile? Possibly Post-medi-eval?
752	200	Modern	Brick	Oxidised	1	2	1	27.5			49.1		X	X	X	X	X	X	
753	200	Post-medie-val/Modern	Tile	Oxidised			1	77.8			15.3		X	X	X	X	X	X	Curved tile or pantile? Wire scrape marks.
754	201	Unknown	Undiagnostic	Oxidised with shell; dark red			1	7.4					X	X	X	X	X	X	
755	300	Unknown	Undiagnostic	Oxidised with shell (up to 9mm); dark red			2	3.7					X	X	X	X	X	X	
756	300	Unknown	Undiagnostic	Oxidised			1	9.7					X	Y	X	X	X	X	
757	300	Unknown	Undiagnostic	Oxidised			1	0.8					X	X	X	X	X	X	
758	302	Unknown	Stone-worked	Red sandstone			1	6.3					X	Y	X	X	X	X	Red standstone brick? Lime mortar adhered to one surface.
759	302	Unknown	Stone-nat-ural?	Sandstone			1	5					X	X	X	X	X	X	
760	401	Unknown	Fired Clay	Oxidised			3	13.8					X	X	X	X	X	X	

APPENDIX 6 — CLAY TOBACCO PIPE ASSESSMENT DATA TABLE

ID	Trench	Context	Part	No. of Fragments	MN	Bore	Weight	Burnish Finish	Mouthpiece Type	Mouthpiece Finish	Bowl Int	Bowl Milling	Bowl Rim	Base Type	Form	Mark_Position	Mark Type	Mark Method	Decoration	Date Range From	Date Range To	Period	Reuse	Joins	Comments
1	1	100	Stem	1	1		1.3															Post-medieval			
2	1	104	Stem	1	1		1.2															Post-medieval			
3	1	105	Stem	10	10		17.5															Post-medieval			
4	1	105	Stem	1	1	5	1.1							Spur								Post-medieval			
5	2	200	Stem	3	3		9.7															Post-medieval			
6	2	200	Mouth-piece	1	1	5	1.6		Nipple	None										1840		Post-medieval			1840+
7	2	200	Mouth-piece	1	1	5	0.8		Flat-tened Oval	None										1800		Post-medieval			19th century +
8	2	200	Stem	1	1		2.5															Post-medieval			
9	2	200	Stem	1	1	4	3.6							Spur		Side of spur	In relief					Post-medieval			Letter 'O' on both sides of spur
10	3	300	Stem	11	11		16.4															Post-medieval			
11	3	300	Mouth-piece	1	1	4	11.2		Nipple	None										1840		Post-medieval			1840+; Chewed mouth-piece?
12	3	300	Mouth-piece	1	1	5	0.9		Nipple	None										1840		Post-medieval			1840+
13	3	302	Stem	1	1		6.4															Post-medieval			
14	4	400	Stem	1	1		1.2															Post-medieval			
15	4	400	Mouth-piece	1	1	5	1		Nipple	None										1840		Post-medieval			1840+

APPENDIX 7 — VESSEL AND WINDOW GLASS ASSESSMENT DATA

ID	Trench	Context	Simple Name	Form	Vessel Part	Count	Weight (g)	Period
5	2	200	Vessel		Body	2	2	Modern
6	2	200	Vessel		Body	1	1.4	Modern
7	2	200	Window			1	1.6	Modern
8	2	201	Vessel		Lid?	1	10.5	Post-medieval/modern
9	2	201	Vessel		Body	1	6	Post-medieval/modern
10	2	201	Vessel		Body	1	1.9	Modern
11	2	201	Vessel		Body	1	1.7	Post-medieval/modern
12	1	104	Window			1	3.6	Post-medieval/modern
13	4	400	Vessel		Body	7	12.6	Post-medieval/modern
14	4	400	Vessel	Drinking vessel	Rim	3	2.5	Post-medieval/modern
15	4	400	Vessel	Jar	Rim	1	4.6	Post-medieval/modern
16	4	400	Vessel	Bottle	Body	1	12.4	Post-medieval?
17	4	400	Vessel	Unidentifiable fragment	Body	1	0.3	Medieval/post-medieval?
18	4	400	Vessel	Bottle?	Body	3	3.4	Post-medieval/modern
19	4	400	Vessel	Unidentifiable fragment	Body	1	1.7	Modern
20	4	400	Vessel	Unidentifiable fragment	Body	1	1.6	Post-medieval/modern
21	4	400	Vessel	Unidentifiable fragment	Body	1	0.3	Post-medieval/modern
22	4	400	Vessel	Unidentifiable fragment	Body	1	0.16	Post-medieval/modern
23	4	400	Vessel	Unidentifiable fragment	Body	1	0.21	Post-medieval/modern
24	4	400	Vessel	Unidentifiable fragment	Body	4	2.1	Post-medieval/modern
25	4	400	Vessel	Jar/bottle	Base	1	6.5	Post-medieval/modern
26	4	400	Vessel	Jar/bottle	Base	1	1.1	Post-medieval/modern
27	4	400	Window			9	6.1	Post-medieval/modern

ID	Trench	Context	Simple Name	Form	Vessel Part	Count	Weight (g)	Period
28	4	400	Window			1	1	Post-medieval/modern
29	4	400	Window			2	11.6	Post-medieval/modern
30	4	400	Window			1	0.6	Post-medieval/modern
31	4	400	Uncertain			1	2.5	Post-medieval/modern
32	4	402	Vessel	Bottle	Base	1	12.2	Post-medieval
33	3	311	Uncertain			1	1.7	
34	4	400	Uncertain			1	0.4	Modern?
35	3	302	Vessel	Unidentifiable fragment	Body	1	0.6	Post-medieval/modern
36	3	300	Vessel	Bottle?	Body	4	24.7	Post-medieval/modern
37	3	300	Vessel	Bottle	Body	2	46.4	Post-medieval/modern
38	3	300	Vessel	Unidentifiable fragment	Body	7	57.1	Post-medieval/modern
39	3	300	Vessel	Unidentifiable fragment	Body	1	1.7	Post-medieval/modern
40	3	300	Vessel	Unidentifiable fragment	Rim/base?	1	1.1	Post-medieval/modern
41	3	300	Vessel	Bottle?	Body	2	24	Post-medieval/modern
42	3	300	Vessel	Bottle?	Body	1	3.7	Post-medieval/modern
43	3	300	Vessel	Bottle (wine)	Base	1	47.4	Post-medieval
44	3	300	Window			1	0.6	Modern
45	3	300	Window			1	1.6	Post-medieval/modern
46	3	300	Window			1	1.5	Post-medieval/modern
47	3	300	Vessel	Bottle?	Body	4	24.7	Post-medieval/modern
48	1	109	Window			1	2.9	Post-medieval/modern
49	1	108	Window			1	1.6	Post-medieval/modern
50	1	108	Vessel	Unidentifiable fragment	Body	1	3.4	Modern?
51	1	114	Window			2	4.6	Post-medieval/modern
52	1	104	Vessel	Unidentifiable fragment	Body	1	2.7	Post-medieval/modern

ID	Trench	Context	Simple Name	Form	Vessel Part	Count	Weight (g)	Period
53	1	104	Vessel	Unidentifiable fragment	Body	1	0.8	Post-medieval/modern
54	1	104	Vessel	Unidentifiable fragment	Body	1	0	Post-medieval/modern
55	1	104	Vessel	Unidentifiable fragment	Body	1	0	Post-medieval/modern
56	1	111	Window			3	10.3	Post-medieval/modern
57	1	111	Window			1	9	Post-medieval/modern
58	1	102	Vessel	Bottle	Rim	2	6.4	Post-medieval/modern
59	1	102	Vessel	Bottle(soda)	Body	1	3.3	Post-medieval/modern
60	1	102	Vessel	Bottle?	Body	2	5	Post-medieval/modern
61	1	102	Window			1	1.2	Modern?
62	1	110	Window			3	3.6	Post-medieval/modern
63	1	110	Window			4	4.6	Post-medieval/modern
64	1	110	Window			1	13.7	Post-medieval/modern
65	1	110	Vessel		Body	1	1.7	Post-medieval/modern
66	1	110	Window			1	0.4	Post-medieval/modern
67	1	110	Window			1	0.5	Post-medieval/modern
68	1	100	Vessel	Bottle?	Body	4	15.4	Modern?
69	1	100	Vessel	Unidentifiable fragment	Body	2	4	Modern?
70	1	100	Vessel	Unidentifiable fragment	Body	1	6.1	Post-medieval/modern
71	1	100	Vessel	Unidentifiable fragment	Body	6	6.2	Modern
72	1	100	Uncertain			1	1.3	Post-medieval/modern
73	1	100	Window			2	3.8	Modern
74	1	100	Window			1	3.2	Modern
75	1	100	Vessel		Body	1	2.1	Modern
76	1	100	Window			1	3.8	Modern
77	1	100	Window			1	1.5	Modern

ID	Trench	Context	Simple Name	Form	Vessel Part	Count	Weight (g)	Period
78	1	100	Vessel			1	0.9	Modern
79	1	100	Vessel			1	0.4	Modern
80	1	100	Vessel			1	0.4	Modern
81	1	100	Vessel			1	0.4	Modern
82	1	100	Vessel			1	0.9	Post-medieval/modern
83	1	105	Vessel	Unidentifiable fragment	Body	1	3.2	Post-medieval/modern
84	1	105	Vessel	Unidentifiable fragment	Body	4	4.3	Post-medieval/modern
85	1	105	Vessel	Unidentifiable fragment	Body	2	11.8	Modern
86	1	105	Vessel	Unidentifiable fragment	Base?	1	0.6	Modern
87	1	105	Vessel	Unidentifiable fragment	Body	5	4	Modern?
88	1	105	Vessel	Unidentifiable fragment	Body	4	15.4	Modern
89	1	105	Vessel	Bottle?	Body	2	24.9	Post-medieval/modern
90	1	105	Vessel	Bottle?	Body	1	16.1	Post-medieval/modern
91	1	105	Vessel	Bottle?	Body	1	3.9	Post-medieval/modern
92	1	105	Vessel	Bottle?	Body	1	4.8	Medieval/post-medieval
93	1	105	Vessel	Bottle	Base	1	39.5	Post-medieval/modern
94	1	105	Vessel	Bottle	Body	1	31.9	Post-medieval
95	1	105	Vessel	Bottle	Body	1	5.9	Post-medieval
96	1	105	Vessel	Bottle	Body	6	16	Post-medieval/modern
97	1	105	Vessel	Bottle	Body	1	9.3	Post-medieval/modern
99	1	105	Window			1	6.1	Post-medieval/modern
100	1	105	Window			1	6.7	Post-medieval/modern
101	1	105	Window			1	4.2	Modern
102	1	105	Window			1	3	Modern
103	1	105	Window			1	1.2	Post-medieval/modern

ID	Trench	Context	Simple Name	Form	Vessel Part	Count	Weight (g)	Period
104	1	105	Window			1	0.6	Post-medieval/modern
105	1	105	Window			1	1.1	Modern
106	1	105	Window			1	0.5	Modern
107	1	105	Window			1	0.4	Post-medieval/modern
108	1	106	Fragment	Unidentifiable fragment		1	0.9	Modern?
109	3	301	Vessel	Unidentifiable fragment	Body	1	3	Medieval/post-medieval?
110	3	303	Melted	Unidentifiable fragment	Uncertain	4	5.7	Uncertain
111	1	105	Window?			1	2.8	Medieval?
112	3	302	Window			3	5.2	Medieval?

APPENDIX 8 — MISCELLANEOUS SMALL FINDS DATA TABLE

ID	Trench	Context	Material	Object Type	Count	Weight (g)	Period
1	1	100	Glass	MARBLE	1	5.6	Post-medieval/modern
2	1	100	Glass	BEAD	1	0.43	Post-medieval/modern
3	4	400	Brass	COIN	1	9.5	Modern
4	4	400	Brass	COIN	1	6.8	Modern
5	2	201	Copper alloy	BUCKLE	1	6.2	Post-medieval
6	2	300	Copper alloy	BUTTON	1	3.8	Post-medieval
7	3	301	Glass	BEAD	1	1.2	Post-medieval/modern
8	3	301	Glass	BEAD	1	1.1	Post-medieval/modern
9	3	300	Copper alloy	BUTTON	1	1.9	Post-medieval-modern
10	1	105	Iron	Horseshoe Nail	1	4.1	Medieval
11	1	105	Iron	NAIL	1	3.1	Uncertain
12	4	400	Cork	Bottle cork	1	2.5	Uncertain
13	3	303	Organic	Bristle	2		Modern?
14	3	300	Bone	Pierced disc	1	0.19	Uncertain
16	3		Sandstone	ARCHITECTURAL ELEMENT?	1	2276.2	Uncertain
17	3		Limestone	Uncertain	1	1149.4	Uncertain
18	3	300	Stone	Tile?	1	156.8	Uncertain
19	3	303	Stone	ARCHITECTURAL ELEMENT?	1	317.5	Uncertain
20	3	308	Limestone?	ROOF TILE	1	896.5	Medieval
21	3	301	Sandstone?	ROOF TILE	1	267.1	Medieval?
22	3	306	Stone	Uncertain	1	449.6	Uncertain
23	4	400	Stone	ROOF TILE	1	102.5	Medieval
24	3	300	Mudstone?	Uncertain	1	212.9	Uncertain

ID	Trench	Context	Material	Object Type	Count	Weight (g)	Period
25	3	300	Sandstone	Uncertain	1	16.3	Uncertain
26	3	300	Ironstone	Natural?	1	12.8	-
27	3	300	Sandstone	Uncertain	1	100	Uncertain
28	4	400	Flint	Piercer/arrowhead	1	1.22	Prehistoric
29	3	300	Stone	ROOF TILE	1	62.7	Medieval?
30	1	105	Sandstone	Natural	1	1	-
31	4	400	Coal	Natural	1	1.9	-
32	4	401	Stone	Natural	1	1	-
33	4	400	Stone	Natural	1	1.5	-
34	3	302	Ironstone	Natural	1	4.8	-
35	3	302	Stone	Natural	1	2.3	-
36	3	300	Stone	Natural	1	10	-
37	2	200	Limestone	Natural	1	8.6	-
38	1	100	Chert/flint	Natural	1	1	-
39	2	204	Sandstone?	Natural	1	22.9	-
40	2	205	Stone	Natural	4	24.3	-
41	3	308	Stone	Natural	2	3	-
42	1	105	Stone	Natural	3	7.8	-
43	2	205	Stone	Natural	8	34	-
44	3	308	Stone	Natural	4	126.2	-
45		0	Stone	Natural	9	46.2	-
46	3	303	Chert	Natural	1	10.5	-
47		0	Metal	Coin	1	94.3	Modern
48	1	104	Wood	BUTTON	1	0.43	Modern
49	1	100	Slate	PENCIL	4	8.3	Post medieval
50	1	102	Slate	PENCIL	1	1.9	Post medieval

ID	Trench	Context	Material	Object Type	Count	Weight (g)	Period
51	3	300	Slate	PENCIL	2	5.6	Post medieval
52	2	201	Slate	PENCIL	1	2.3	Post medieval
53	1	105	Slate	PENCIL	1	4.2	Post medieval
54	1	105	Slate	PENCIL	1	0.9	Post medieval
55	1	105	Uncertain	Uncertain	1	0.21	Uncertain
56	3	300	Copper alloy	SHEET	1	13.2	Uncertain
57	3	300	Copper alloy	BUTTON	1	1.6	Uncertain
58	1	105	Copper alloy	Uncertain	1	1.9	Post-medieval/modern
59	1	102	plastic	COMB	1	1.2	Modern
60	1	102	Metal	VALVE	1	2.8	Modern
61	1	104	Rubber?	Uncertain	1	0.7	Modern
62	1	400	Plastic	Uncertain	1	0.9	Modern
63	1	300	Plastic	BUTTON	1	0.5	Modern
64	1	100	Plastic		4	2.6	Modern
65	4	400	Plastic	Uncertain	1	0.02	Modern
66		0	Plastic	Uncertain	7	6	Modern
67	4	400	Plastic	Uncertain	8	3.8	Modern
68	4	406	Copper alloy	AMMUNITION	1	10.9	Modern
69	2	200	Copper alloy	AMMUNITION	1	12	Modern
72	1	102	Plastic	Pen cap	1	0.6	Modern
73		0	Coal		5	1.9	-
74		0	Charcoal		1	0.4	-
75	1	104	Coal		1	1.8	-
76	1	105	Coal		4	1.6	-
77	1	105	Stone	natural	2	2.4	-
78	1	109	Coal		2	3.9	-

ID	Trench	Context	Material	Object Type	Count	Weight (g)	Period
79	1	118	Coal		1	0.27	-
80	3	303	Uncertain	INDUSTRIAL BY PRODUCT	1	0.41	Uncertain
81	3	302	Coal		4	42.8	-
82	3	302		INDUSTRIAL BY PRODUCT	2	2.19	Uncertain
83	4	400	Coal		7	2.3	-
84	4	400	Coal		2	8.9	-
85	2	200	Coal		4	20.9	-
86	2	205	Stone	Natural	1	8	-
87	1	106	Charcoal		7	10	-
88	1	109	Charcoal		2	0.9	-
89	3	308	Charcoal		1	0.22	-
90	4	400	Charcoal		2	1.3	-
91	4	401	Charcoal		2	1.1	-
92		0		INDUSTRIAL BY PRODUCT?	1	1.2	Uncertain
93	3	300		INDUSTRIAL BY PRODUCT?	1	2.6	Uncertain
94	3	300		INDUSTRIAL BY PRODUCT?	2	24.1	Uncertain
95	1	100		INDUSTRIAL BY PRODUCT?	1	2.8	Uncertain
96	1	105		INDUSTRIAL BY PRODUCT?	1	3.5	Uncertain
97	4	400		INDUSTRIAL BY PRODUCT?	3	30.6	Uncertain
98		0	Iron	NAIL	2	28.8	Uncertain
99		0	Iron	Nail?	3	1.7	Uncertain
100	1	100	Copper alloy	HANDLE	1	18.6	Uncertain
101	1	100	Copper alloy	BUTTON	1	1.4	Post medieval
102	1	100	Copper alloy	AMMUNITION	1	0.5	Post medieval
103	1	100	Iron	PEG	1	180.9	Post medieval
104	1	100	Iron	NAIL	2	5.8	Uncertain

ID	Trench	Context	Material	Object Type	Count	Weight (g)	Period
105	1	100	Iron	NAIL?	2	2.2	Uncertain
106	1	102	Iron	NAIL	1	9.7	Uncertain
107	1	104	Iron	NAIL	1	3	Uncertain
108	1	117	Iron	NAIL?	1	48.4	Uncertain
109	1	124	Iron	Horseshoe Nail	1	7.8	Medieval
110	1	106	Iron	NAIL	1	12.6	Uncertain
111	1	106	Iron	NAIL?	1	20	Uncertain
112	1	106	Iron	NAIL?	1	2.1	Uncertain
113	1	110	Iron	NAIL?	4	41.4	Uncertain
114	1	109	Iron	NAIL	1	6.7	Uncertain
115	1	109	Iron	NAIL	2	7.7	Uncertain
116	1	109	Iron	NAIL?	1	10	Uncertain
117	1	109	Iron	UNASSIGNED	1	4.1	Uncertain
118	1	105	Iron	Nail?	1	0.9	Uncertain
119	1	105	Iron	Nail?	1	17.2	Uncertain
120	1	105	Iron	Nail?	1	17.2	Uncertain
121	1	105	Iron	NAIL	1	4.7	Uncertain
122	1	105	Iron	NAIL	2	11.6	Uncertain
123	1	105	Iron	NAIL?	1	2.8	Uncertain
124	1	105	Iron	NAIL?	1	2.8	Uncertain
125	1	105	Iron	Horseshoe Nail	1	4.7	Medieval
126	1	105	Iron	NAIL	3	10.3	Uncertain
127	1	105	Iron	NAIL?	1	3.4	Uncertain
128	1	105	Iron	Strip	1	10.9	Uncertain
129	1	105	Iron	UNASSIGNED	1	36.6	Uncertain
130	1	105	Iron	UNASSIGNED	3	15.5	Uncertain

ID	Trench	Context	Material	Object Type	Count	Weight (g)	Period
131	1	105	Iron	UNASSIGNED	1	3.8	Uncertain
132	1	105	Iron	NAIL	3	23.5	Uncertain
133	1	105	Iron	NAIL	1	10.5	Uncertain
134	1	105	Iron	NAIL	1	4.4	Post medieval-modern
135	1	105	Iron	NAIL?	8	41.6	Uncertain
136	2	200	Stone		3	6	Uncertain
137	2	200	Iron	NAIL	1	9	Post medieval-modern
138	2	200	Iron	Tube	1	29	Uncertain
139	2	200	Iron	HAIR ORNAMENT	1	4	Modern
140	2	201	Iron	UNASSIGNED	1	13.4	Uncertain
141	2	201	Metal	AMMUNITION	1	5.2	Modern
142	2	201	Iron	NAIL	1	22.3	Post medieval-modern
143	2	201	Iron	NAIL?	2	8.7	Uncertain
144	2	201	Iron	NAIL?	2	6.5	Uncertain
145	2	204	Iron	UNASSIGNED	1	23.2	Uncertain
146	2	205	Stone		2	11.7	Uncertain
147	2	205	Iron		2	10.9	Uncertain
148	2	205	Iron		3	22.3	Uncertain
149	4	400	Aluminium	FOIL	4	2.7	Modern
150	4	400	Metal?	WASHER	1	1.6	Modern
151	4	401	Iron	Nail?	1	1.9	Uncertain
152	4	400	Iron	NAIL	1	1.2	Post medieval-modern
153	4	400	Iron	NAIL	1	5.2	Uncertain
154	4	400	Iron	NAIL	1	8.3	Post medieval-modern
155	4	400	Iron	NAIL?	1	11	Uncertain
156	4	400	Iron	FITTING	1	80.6	Modern?

ID	Trench	Context	Material	Object Type	Count	Weight (g)	Period
157	4	400	Unknown	UNASSIGNED	1	2.5	Uncertain
158	3	300	Iron	NAIL	1	4.1	Uncertain
159	3	300	Iron	NAIL	1	5.8	Uncertain
160	3	300	Iron	NAIL	1	8.5	Uncertain
161	3	300	Iron	NAIL	1	2.6	Uncertain
164	3	300	Iron	NAIL?	3	10.6	Uncertain
165	3	300	Iron	UNASSIGNED	1	7.7	Uncertain
166	3	300	Iron	UNASSIGNED	1	7.7	Uncertain
167	3	302	Iron	NAIL	1	4.8	Uncertain
168	3	302	Iron	NAIL	1	4.7	Uncertain
169	3	302	Iron	NAIL	1	6.9	Uncertain
170	3	302	Iron	NAIL	1	1.1	Uncertain
171	3	302	Iron	NAIL?	3	14.8	Uncertain
172	3	302	Iron	AWL?	1	11.5	Uncertain
173	3	301	Iron	NAIL	1	4.3	Uncertain
174	3	312	Iron	NAIL	1	5.9	Uncertain
175	3	312	Iron	NAIL?	2	1.5	Uncertain
176	3	312	Iron	NAIL	1	7	Uncertain
177	3	303	Iron	NAIL?	1	3.3	Uncertain
178	3	303	Iron	Horseshoe?	1	217.5	Uncertain
179	3	303	Iron	Nail?	1	2.8	Uncertain
180	3	308	Iron	NAIL	1	7.9	Uncertain
181	3	308	Iron	NAIL	1	6.3	Uncertain
182	3	308	Iron	NAIL	1	4.6	Uncertain
183	3	308	Iron	NAIL	1	6.3	Uncertain
184	3	308	Iron	NAIL	1	5.1	Uncertain

ID	Trench	Context	Material	Object Type	Count	Weight (g)	Period
185	3	308	Iron	NAIL	1	3.4	Uncertain
186	3	308	Iron	UNASSIGNED	1	4.9	Uncertain
187		0	Lead	SHEET	1	88	Uncertain
188	1	105	Lead	WASHER	1	113	Uncertain
189	1	104	Lead	Window Came	1	8	Uncertain
190	4	401	Lead	SHEET	1	60	Uncertain
191	3	300	Lead	Window Came	2	31.9	Uncertain
192	3	302	Lead	Window Came	1	15	Uncertain
193	3	303	Lead	UNASSIGNED	1	28.4	Uncertain
194	3	300	Lead	UNASSIGNED	1	57.3	Uncertain
195	3	302	Lead	Window Came	1	9	Uncertain
196	3	300	Lead	UNASSIGNED	1	21	Uncertain
197	3	300	Lead	UNASSIGNED	1	37.7	Uncertain
198	3	300	Lead	Window Came	1	3.7	Uncertain
199	3	300	Lead	UNASSIGNED	1	81.1	Uncertain
200	3	300	Lead	UNASSIGNED	1	63.5	Uncertain
201	3	301	Lead	Window Came	26	196.7	Uncertain

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