



# NAA

THE CURTAIN RISES  
THE PLEASURE GROUNDS

ARCHAEOLOGICAL  
INVESTIGATIONS

NATIONAL TRUST  
SEATON DELAVAL HALL  
NORTHUMBERLAND

on behalf of  
The National Trust

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Manager	Penny Middleton
Draft	Andrew Durkin, Greg Speed, Penny Middleton
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Author Andrew Durkin, Greg Speed, Penny Middleton

Illustrations Andrew Durkin, Damien Ronan

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District Northumberland

Grid Ref NZ 32368 76541

# THE PLEASURE GROUNDS, SEATON DELAVAL HALL, NORTHUMBERLAND

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THE PLEASURE GROUNDS, SEATON DELAVAL HALL, NORTHUMBERLAND  
ARCHAEOLOGICAL INVESTIGATIONS  
FINAL REPORT

**Summary**

*Northern Archaeological Associates Ltd was commissioned by the National Trust to undertake a programme of archaeological monitoring during restoration and landscaping work at Seaton Delaval Hall, Northumberland (NZ 32368 76541). This was completed as part of the 'The Curtain Rises' project and undertaken in accordance with a Written Scheme of Investigation prepared by the National Trust, approved in advance by Northumberland County Council. Results from Work Packages 4, 6, 7, 8 and 9 of the project brief are detailed in this report, relating to the restoration of the bastions and ha-ha, and landscaping works in the Pleasure Grounds (including the south-east and north-west woods). The programme fulfils Conditions 13 and 14 of Planning Permission 17/04635/FUL (as varied by 18/04039/varyco), Condition 4 of 17/04412/FUL (18/01484/varyco) and also relates to Listed Building Consents 17/04636/LBC (18/04045/varyco) and 17/04413/LBC(as varied 18/01486/varyco).*

*The bastions at Seaton Delaval Hall are four penannular structures located at each corner of a ha-ha'd enclosure surrounding the southern Pleasure Garden. They have often been cited as an archetypal example of Vanbrugh's 'fortified' garden design, although were not actually constructed until a number of years after the architect's death. Recent research into the gardens, undertaken as part of The Curtain Rises project, suggests that prior to the creation of the 18th-century Pleasure Garden the area to the south of the Hall was covered by woodland, planted in the Tudor or Stuart period. In contrast, the woods to the north-west of the Hall were a late 18th-century addition.*

*Stabilisation works conducted in relation to the north-east, south-east and north-west bastion provided an opportunity to investigate and record the construction of the mid-18th-century structures and their relationship with the adjoining ha-ha. To the south of the north-east bastion, excavation at the base of the adjoining gateway showed this to be a later addition, likely dating to the construction of the when the Walled Garden in the late 18th-century.*

*Targeted investigation during landscaping improvements in the south-east woods included excavation of 44 test pits and trenches and monitoring of an extensive scheme of tree and shrub planting. Three trenches were also excavated in the Pleasure Garden in advance of archaeological monitoring of groundworks along the line of the northern access path; this leads*

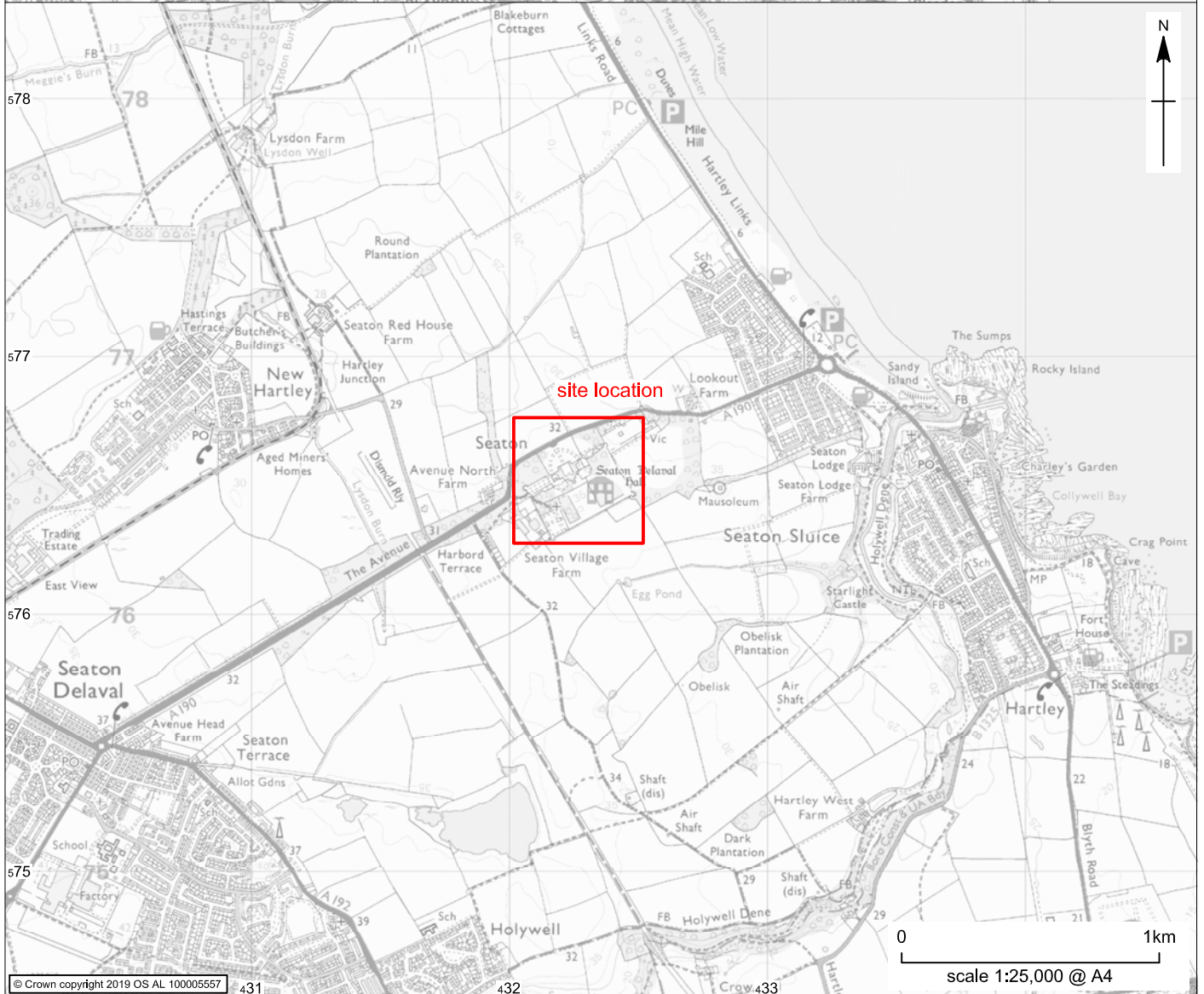
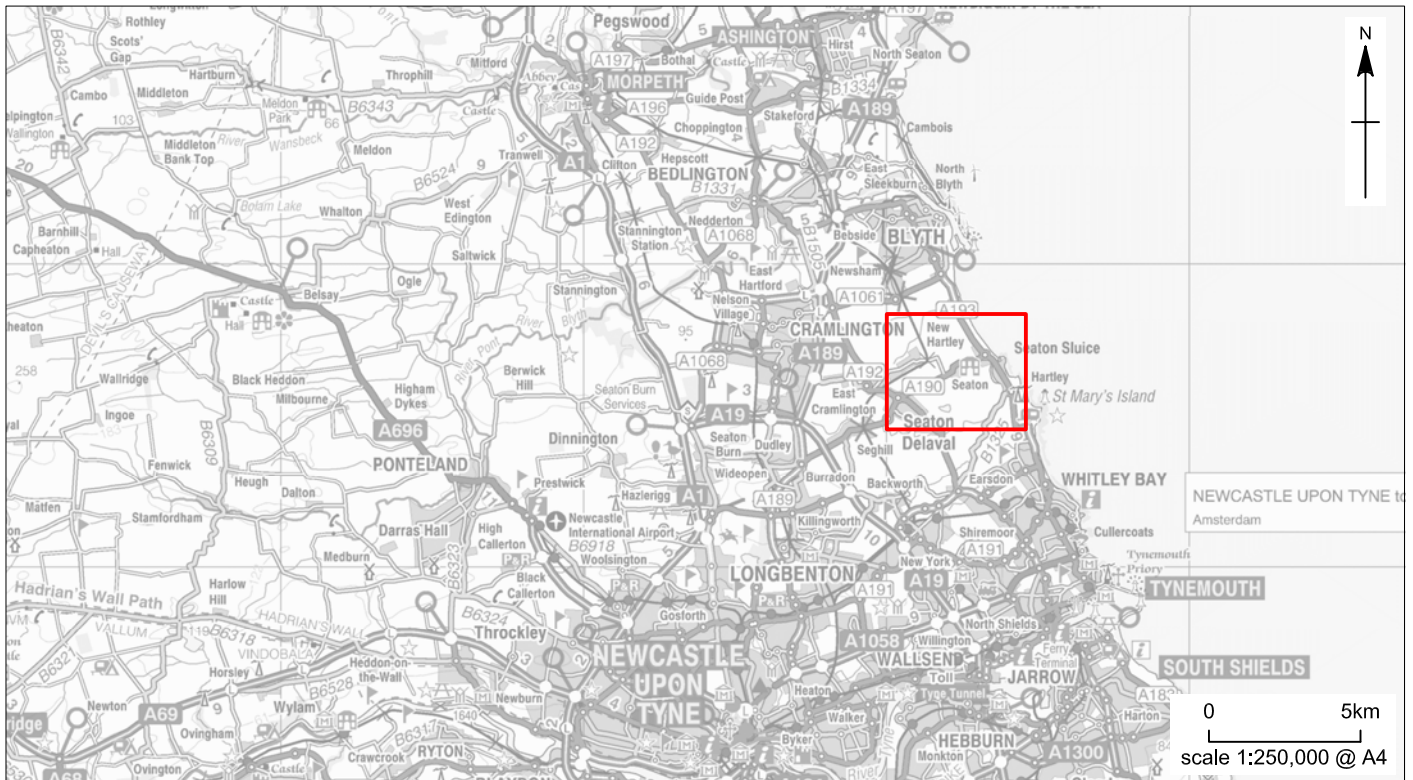
*from the visitor's entrance at the carpark to the main Hall. The works in this area identified evidence of two substantial former paths or trackways. One of these predated the northern boundary of the Pleasure Gardens while the other equated with a walk shown on the 1808 estate plan. Several other features were noted during monitoring works in the south-east woods, although the limited nature of the individual investigations meant these could not in general be interpreted or dated.*

*Monitoring was conducted during the construction of a new promenade walk to the east of the Central Hall. This both provided access to basement of the Hall and an interpretation of the footprint of the lost south-east range. New paths were extended from to the north and north-east of the south-east range walk, and the fence to the flower garden to the west was also replaced. This work did not expose any significant remains relating to lost components of the mansion complex. Indeed, the path works were specifically designed to avoid disturbing any buried features or deposits. However, work conducted during preliminary investigations had illustrated the considerable archaeological potential of the area.*

*In the north-west woods monitoring was conducted during the installation of play equipment and new pathways. However, there was only limited scope for archaeological recording due to a substantial depth of woodland soil and the restricted extent of the foundation excavations. No features of archaeological significance were identified.*

*Only a small number of finds were recovered during the works, consisting mainly of 18th- to 20th-century pottery, glass and ceramic building materials. However, three sherds of Roman pottery, were found in a buried soil horizon in one of the trial trenches in the Pleasure Garden, which may hint at the presence of a contemporary settlement somewhere in the vicinity. Several medieval potsherds were also found.*

*The individual components of the works were each relatively limited in scope; nevertheless, they cumulatively provided a significant opportunity to evaluate archaeologically an extensive area of the immediate hinterland of Seaton Delaval Hall. Important structural details were also recorded of the bastions and ha-ha, which are two of the main surviving structural elements of the 18th-century landscape scheme. Beyond the visible above-ground evidence, the discovery of the two buried paths and other features has demonstrated the archaeological potential of the grounds around the Hall. This includes not just remains of earlier garden features but also the possible survival of features and deposits associated with the medieval agricultural landscape and pre-medieval occupation of the site.*



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*The Pleasure Grounds: site location*

*Figure 1*



## 1.0 INTRODUCTION

- 1.1 Northern Archaeological Associates Ltd was commissioned by the National Trust to undertake a programme of archaeological monitoring during restoration and landscaping work in the grounds of Seaton Delaval Hall, Northumberland (NZ 32368 76541; Fig. 1). This work was completed as part of the 'The Curtain Rises' project, a three-year restoration scheme, part funded by the National Lottery Heritage Fund, aimed at conserving the 18th-century Seaton Delaval Hall and improving the overall visitor experience.
- 1.2 This report relates to mitigation work conducted as part of Archaeological Work Packages (AWP) 4, 6, 7 (National Trust 2018a–c), associated with the restoration of the bastions and ha-ha, and AWP 8 and 9 associated with landscape improvements in the Pleasure Grounds (National Trust 2018d–e) (Fig. 2). AWP 5 related to the walled garden and forms part of a separate report (NAA 2021). Fieldwork was conducted at intervals between December 2018 and November 2019 in accordance with a Written Scheme of Investigation (WSI) prepared by the National Trust (National Trust 2018f), approved in advance by the Northumberland County Council (NCC) Assistant County Archaeologist. The programme (in combination with this report) fulfils Conditions 13 and 14 of Planning Permission 17/04635/FUL (as varied by 18/04039/varyco) and Condition 4 of 17/04412/FUL (18/01484/varyco). It also relates to Listed Building Consents 17/04636/LBC (18/04045/varyco) and 17/04413/LBC (18/01486/varyco).
- 1.3 The south pleasure gardens at Seaton Delaval Hall are surrounded by a ha-ha with four penannular bastions located one at each corner (Fig. 2). It has often been cited as an archetypal example of Vanbrugh's 'fortified' garden design, although not actually constructed until some years after the architect's death. Recent research undertaken as part of The Curtain Rises project (Newman 2017) has suggested that prior to the creation of the 18th-century pleasure ground, the area inside the bastions was covered by woodland planted in the Tudor or Stuart period. In contrast, the woods to the north-west were planted in the late 18th century.
- 1.4 Surface traces associated with medieval and early post-medieval activity have been identified on LiDAR survey, extending across the bastion enclosure (Newman 2017). This clearly identified the high archaeological potential of the area and indicated what appeared to be an earlier garden design scheme pre-dating the Vanbrugh hall.

- 1.5 As part of The Curtain Rises project the bastions and ha-ha were stabilised and conserved and a new landscape scheme set out in the south-east and north-west woods. This included planting of trees, laying paths, erecting art installations and other gardening in the south-east woodland; laying of soft paths with erection of play equipment in the north-west woodland, together with limited planting of trees and shrubs.
- 1.6 In addition, a promenade walk was installed to the east of the Central Hall, emulating a historic predecessor: this also included new access to basement of the Hall and restored a reflection of the footprint of the south-east range, lost to fire in 1822. Further new paths were extended from this walk to the north and north-east, and the fence to the flower garden to the west was replaced.
- 1.7 Archaeological monitoring was conducted during all groundworks unless otherwise stated.

## **2.0 LOCATION, TOPOGRAPHY AND GEOLOGY**

### **Location**

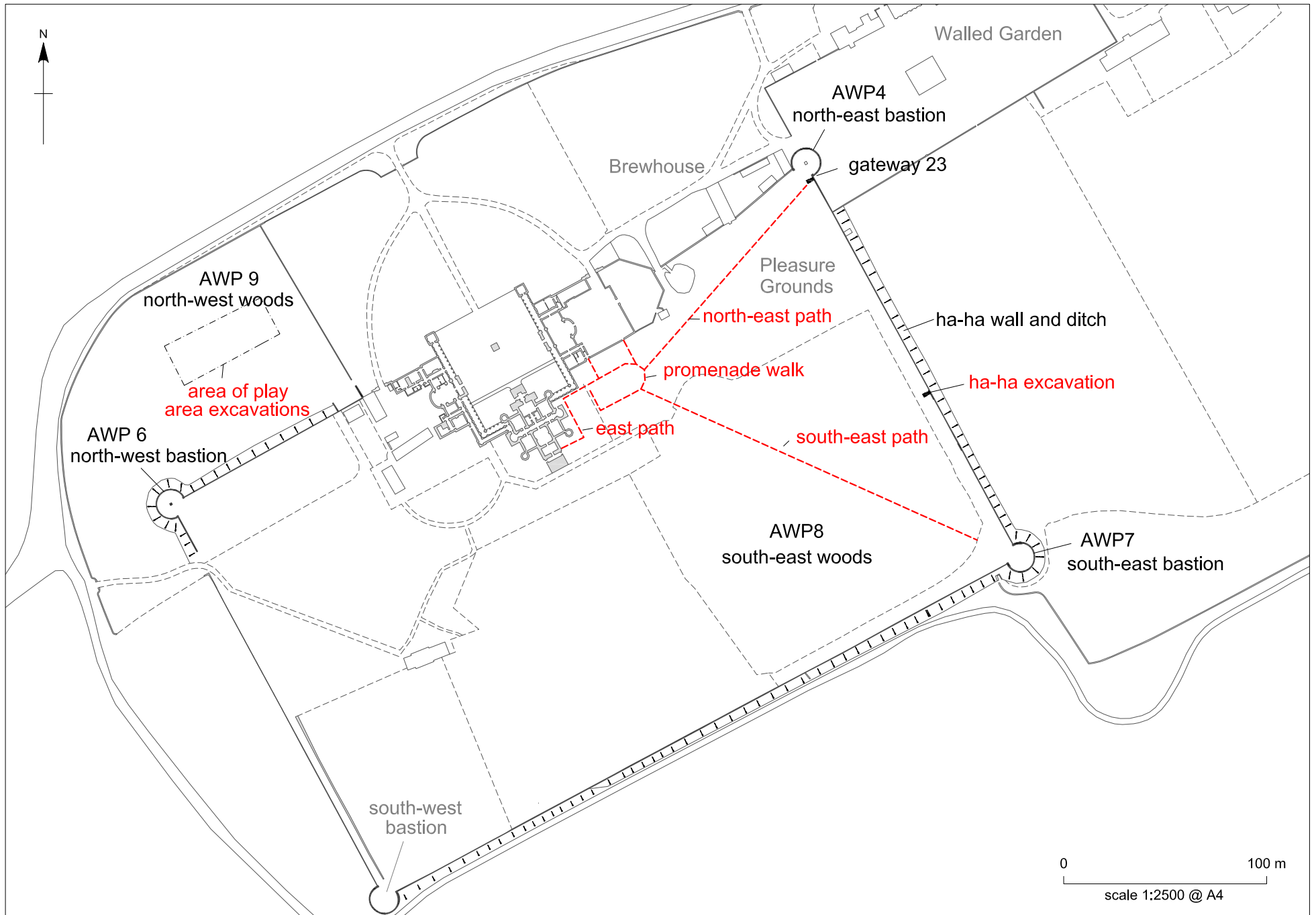
- 2.1 Seaton Delaval Hall is located between Seaton Delaval and Seaton Sluice, approximately 5km south of the Port of Blyth (Fig. 1), centred on NZ 32276 76463 (Fig. 2).

### **Geology and soils**

- 2.2 Seaton Delaval Hall is located on Devensian Diamicton, which is poorly sorted glacial till deposited at the end of the last ice age. This layer lies above the Carboniferous Pennine Middle Coal Measures Formation – a compilation of mudstones, siltstones and sandstones created in shallow seas (BGS 2021).

### **Topography and land use**

- 2.3 The Pleasure Grounds form part of a wider parkland estate, and at project commencement comprised blocks of mixed woodland interspersed with areas of open lawn, the most significant of which are to the north, east and south of the Hall providing long views and vistas both to and from the mansion (Fig. 3). The former Pleasure Grounds mainly lay to the south of the Hall, enclosed on three sides by the ha-ha. Much of this area (that which is owned by the National Trust) is now gardens and mixed



The Pleasure Grounds: location of investigations and Archaeological Work Packages

Figure 2

recreational woodland. To the east, separated by the ha-ha, is a large area of pasture — known as Hare Park— featuring evidence of ridge-and-furrow cultivation.

2.4 On average, the area is c.35m above Ordnance Datum (aOD).



*Figure 3: aerial photograph of key areas discussed in report. Image © Google 2018 5/27/2018.*

### **Designations**

2.5 The bastions and ha-ha enclosure together constitute a Grade II Listed Building (NHLE: 1041323), described as ‘Ha-ha wall with angle bastions and statues enclosing Seaton Delaval Hall and Church of Our Lady’. It forms part of the setting and curtilage of the of the Grade I Seaton Delaval Hall (NHLE: 1041321).

2.6 The gardens and park (including woodland) are designated Grade II\* on the Register of Parks and Gardens of Special Historic Interest in England (NHLE: 1001052).

### **Previous work**

2.7 Since 2012, a series of surveys have been conducted across the estate to inform a greater understanding of the archaeological and historical evolution of the site, beginning with a Historic Park Management Plan prepared by Southern Green (2012). This was followed

in 2014 by a detailed Conservation Management Plan, revised and updated in 2017 (Simpson and Brown Architects; Jo Moody, 2017).

2.8 In 2014, geophysical survey and targeted excavation was conducted across the site, including in areas of the woods and former Pleasure Grounds (ARS 2014).

2.9 In January 2017, a LiDAR survey of the estate was commissioned by the National Trust in preparation of The Curtain Rises project. The results of this, together with all previous archaeological and historic evidence, informed a forensic study of the estate which is detailed in *Historical Gardens within and around the Bastions at Seaton Delaval: The Documentary and Archaeological Evidence* (Newman 2017). This includes a critical reassessment of the work attributed to Vanbrugh, informing a greater appreciation of the pre-18th-century landscape and facilitating a more detailed understanding of the chronology of the estate.

### 3.0 SUMMARY ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

#### **Prehistoric and Roman**

3.1 A possible Neolithic causeway enclosure or prehistoric farmstead has been identified from aerial photographs c.1km east of Seaton Delaval Hall at Lookout Farm. Other undated cropmark enclosures have also been identified to the north-west and north-east of the site. About 1km south of the site, a possible Iron Age or Romano-British farmstead, comprising an oval-shaped enclosure containing a number of circular structures, is recorded. A Neolithic or Bronze Age cist burial is also known from the same area (Copp 2012).

3.2 A timber structure, tentatively dated to the prehistoric or Roman period, was identified during geophysical survey and evaluation at Blackhaugh Drive in Seaton, c.2km west of the Hall. Neolithic flint artefacts were recovered in the nearby vicinity during geophysical survey in 2002 (*ibid.*). All such finds suggest the occupation and settlement of the surrounding coastal plain during the prehistoric and Romano-British periods.

#### **Medieval**

3.3 The name Seaton is of Old English origin, meaning 'settlement by the sea' and may signify settlement in the area before 1066 (Ekwall 1960, 410), although no archaeological evidence dating to this period has been found on, or in the vicinity of, the estate.

- 3.4 After the Conquest, William I granted the area around Seaton Delaval to the De Laval family, both in reward for their support during the invasion and as a means of establishing a Norman presence in the volatile North. The grant included the manor of Seaton. Guy de Laval is recorded as constructing a private chapel at Seaton as early as 1102, consecrated by Bishop Flambard. This now forms part of the Church of Our Lady, located to the south-west of the Hall, which constitutes the only extant surface remains associated with the former medieval settlement (Simpson and Brown Architects 2017, 24).
- 3.5 In 1297, an inquisition recorded the manor of Seaton as comprising 24 bondage holdings as well as 300 acres of arable lands and 5 acres of meadow (*ibid.*, 24). In 1353, a manor house, garden, dovecote and windmill are all referenced, and the land holding had increased to 360 acres of arable and 10 acres of plantation (Newman 2017, 5). Given the instability of medieval Northumberland, the manor house at Seaton would have almost certainly been fortified from an early period. A tower is suggested to have existed on the site by the early 15th century when the 'Turrus de Seton de la uale' is recorded in 1415 list of fortresses of Northumberland, owned at that time by Willimi Wychester Chlr (ARS 2014; Simpson and Brown Architects 2017).
- 3.6 In 1539, the poet and antiquarian John Leland referred to 'Delaval Castle' in an account of his travels through Northumberland (*ibid.*). By the mid-16th century a Tudor mansion had been constructed adjacent to the tower, depicted on Speed's 1611 map of Northumberland (not depicted). The 'supposed site of the Castle' is marked on the 1860 First Edition Ordnance Survey (OS) map, situated to the south-west of the Church of Our Lady and east of the south-western ha-ha (NHLE: 1001052). However, the location of the medieval manor house has not been established archaeologically and may lie at least partially beneath the present hall. Its supposed position is also varied on later OS editions.
- 3.7 The site of the medieval village similarly remains uncertain. The most likely location centres on Seaton Village Farm to west of the Hall. Here, a row of cottages is shown on a 1781 estate plan, situated just outside the west bastion wall. Newman has suggested that these may date to a phase of landscaping in the late 17th century, when the scattered remains of the old medieval settlement were consolidated into a new planned estate village (Newman 2017).

- 3.8 Associated with Seaton Village Farm is a block of preserved ridge and furrow. There is also more extensive cultivation evidence to the south-east of the Brewhouse, in an area known as Hare Park or Vicarage Field. There are a number of blocks of ridge and furrow in this location running in various directions, indicating prolonged and multi-phased use. The ridges on the west side of the field are much narrower than those on the east side which are also more pronounced and quite broad in character, with the distinctive S-curve associated with medieval ploughing. The preservation of such cultivation evidence across the estate is due to the relatively early conversion of arable land to pasture in 1573 by Sir Robert Delaval, who purchased all 'freeholders' lands and tenements', displaced the tenants and converted 720 acres to grazing land (Simpson and Brown Architects 2017).
- 3.9 In 1591, Sir Robert was granted Rights of Free Warren in the manor, enabling him to hunt small game not held in an emparked enclosure, which suggests that there was not a medieval deer park associated with the site. However, informal emparkation may have followed soon afterwards, and was perhaps the genesis of the later park documented on the 1781 estate plan (Fig. 4) (Newman 2017, 5).

#### **Post-medieval and modern**

- 3.10 In the early 17th century, Sir Ralph Delaval (1577–1628) made considerable modifications to the house and estate, building a large Jacobean hall complex around the core of the Tudor mansion. On his death in 1628 his son, Thomas Delaval, recorded the property as comprising approximately 14 buildings, including brewhouse, bakehouse, stables, a dovecote and granary. The house was arranged around a forecourt and back-court, and included three formal gardens. The old medieval tower was retained (*ibid.*, 25).
- 3.11 By 1660, Thomas's nephew, Sir Ralph Delaval (1622–1691) had inherited the estate and was made baronet of Seaton. His eldest son died without issue in 1696 and the property passed to Sir John Delaval (1654–1729). However, he was obliged to sell the estate to his cousin, Admiral George Delaval (1668–1723) in 1717 due to bankruptcy. Soon after, the Admiral commissioned the architect Sir John Vanbrugh (1664–1726) to design a new mansion house (NHLE: 1001052). Construction on the new house is believed to have begun on the site in 1720 but, before the completion of the building, the Admiral died following a fall from his horse. The estate then passed to his nephew, Captain Francis Blake Delaval (1692–1752) who continued work on the Hall, which is believed to have been largely completed by 1728 (Simpson and Brown Architects 2017).

- 3.12 Almost all the buildings associated with the former Jacobean/Stuart mansion and medieval tower were demolished as part of the new building project, the exceptions being the Church of Our Lady; a mixed-used agricultural building (brewhouse) to the east of the complex; a section of wall running east from the Brewhouse towards the north-east bastion; the south wall of the west service yard, and two rows of cottages associated with the old village of Seaton. All of these elements except the church are on a slightly different alignment from most elements of the 18th-century Hall and gardens.
- 3.13 The Hall is an idiosyncratic interpretation of the baroque (English Baroque) and, although classified as a masterpiece of Palladian architecture, it is still uniquely Northumbrian (Simpson and Brown Architects 2017). The mansion is U-shaped in plan with the ornate Central Hall building forming the centrepiece, flanked by the east and west wings set around a large courtyard (Fig. 4). Behind these are service ranges and outbuildings.
- 3.14 Vanbrugh died in 1726, soon after the construction of the Central Hall and while the west and east wings were still incomplete. There is no documentary evidence as to who completed the design of these buildings but it might have been Vanbrugh's clerk of works, the York architect William Ety. The similarity in style with the Central Hall indicates close attention to the concept of Vanbrugh's original design. Vanbrugh had intended the West Wing as a more modest domestic service building. However, it was subsequently built to a more elaborate plan mirrored by the East Wing. Both are thought to have been completed by 1750 (Simpson and Brown Architects 2017), along with a now-missing domestic range to the south-east, which was itself remodelled in the 1770s.

### *The 18th-century gardens*

- 3.15 A significant planting campaign accompanied the construction of the Hall. In 1720, there are records of 1620 trees being purchased for a sum of just under £50 (Newman 2017). Some of these were probably intended for the now-vanished south avenue which was in place by 1722. Cut vistas through pre-existing woodlands (most likely planted in the Tudor or Stuart period) were carefully planned; one of the most significant was the view south from the Hall towards the obelisk.
- 3.16 The bastions and ha-ha were in construction c.1743 (Newman 2017). These have previously been attributed to Vanbrugh and cited as a prime example of one his 'fortified gardens'; however, in reality they were not constructed until some 17 years after the architect's death. It is unclear the degree, if any, of Vanbrugh's direct involvement in the



- design of the bastion enclosure, although it was clearly influenced by similar schemes at Castle Howard and Blenheim. It also has parallels with the works of the later landscape architect Charles Bridgman (Newman 2017; Simpson and Brown Architects 2017).
- 3.17 Captain Francis Blake Delaval died in 1752 following a fall down the steps of the south portico. He was succeeded by his son Sir Francis Blake Delaval (1727–1771). In the same year, a fire started in the kitchen chimney of the West Wing and damaged the rooms to the south. Sir Francis showed little interest in either the hall or estate, often preferring to spend his time in London where he accumulated considerable debt.
- 3.18 In 1761, in a bid to preserve the estate from ruin, Sir Francis' brother, John Hussey Delaval (1728–1808), purchased Seaton Delaval in return for an annuity. Francis remained living in the Hall while John, and his younger brother Thomas, took over the management of the estate. When Francis died in 1771 John succeeded to the estate outright. A leading industrialist and politician, he implemented a programme of improvements at Seaton during his ownership which included the enclosure of Hare Park, radical enlargement and later contraction of the wider designed landscape and an extensive tree planting campaign.
- 3.19 In 1778, author William Hutchinson writes of the estate:
- 'This splendid seat stands in part of the pleasure gardens, surrounded by a ha-ha, having a wall of hewn stone nine feet high, and considerably more than a mile in circumference, which is not seen from the house. Here are several walks disposed with great taste, some of which are shaded as well by lofty old trees as plantations, through which various vistas are cut, some of them terminated in elegant stone buildings, and others opening delightful prospects to the sea towards the east...'* (Hutchinson 1778, 332)
- 3.20 The earliest known estate plan was surveyed just a few years after Hutchinson's visit, in 1781 (Fig. 4). This clearly shows the extent of the woodland in the late 18th century. Three blocks of planting are depicted within the ha-ha enclosure; to the south-west, south-east and north-east of the Hall. Also evident were the remains of more formal gardens schemes along the southern edge of the enclosure.
- 3.21 The nature of planting in the north-west woodland at this date is harder to decipher as the area lies without the boundary wall and is depicted in a more sketch-like manner

than those features within and around the enclosed southern Pleasure Grounds. The paucity of trees suggests the area might be wood pasture, or simply it was not of interest to the cartographer. It may also indicate that the present outer estate boundary wall was not yet in place.

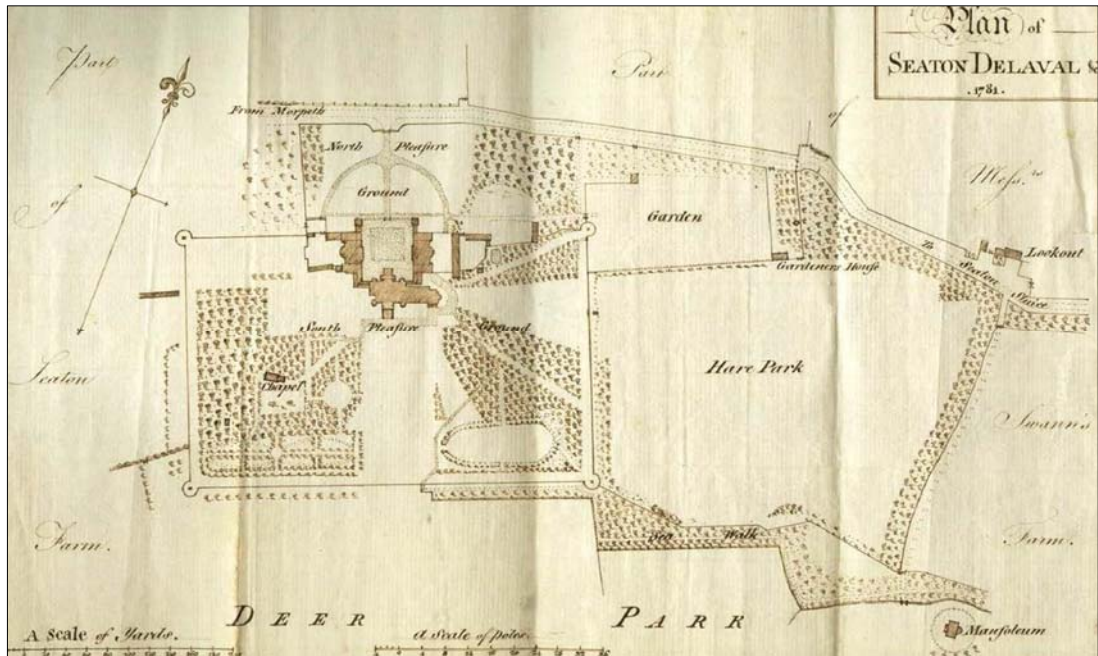


Figure 4: 1781 plan of the estate showing the layout of the 18th-century gardens (NRO 740/Box 14).

### *The 19th-century gardens*

- 3.22 Sir John died in 1808, the estate passing to his brother Edward. This prompted preparation of a new estate survey, compiled in August the same year. This suggests a landscape somewhat changed from the 1781 plan. Inside the bastions, the layout is less complex. The vestiges of the formal gardens to the south have all but disappeared although some of the former features remain visible. The north-west woodland is depicted as dense plantation. Across the broader parkland much of the 18th-century designed scheme has been subsumed into farmland, as the national demand for agricultural production increased, and the Delaval's industrial interests (including coal mining in what had been parkland) intensified.
- 3.23 Edward's death in 1814 marked the end of the direct Delaval line and the estate passed to his nephew Sir Jacob Astley (1756–1817). Astley commissioned architect John Dobson to prepare a scheme for the addition of a south-west range to the Hall and restoration of the east end of the south-east range (NT object 1277212 Dobson plans c.1816). However, this was abandoned on Sir Jacob's death in 1817. His son, also Jacob

Astley (1797–1859) became the 16th Baron Hastings, a title which had been in abeyance since 1389.

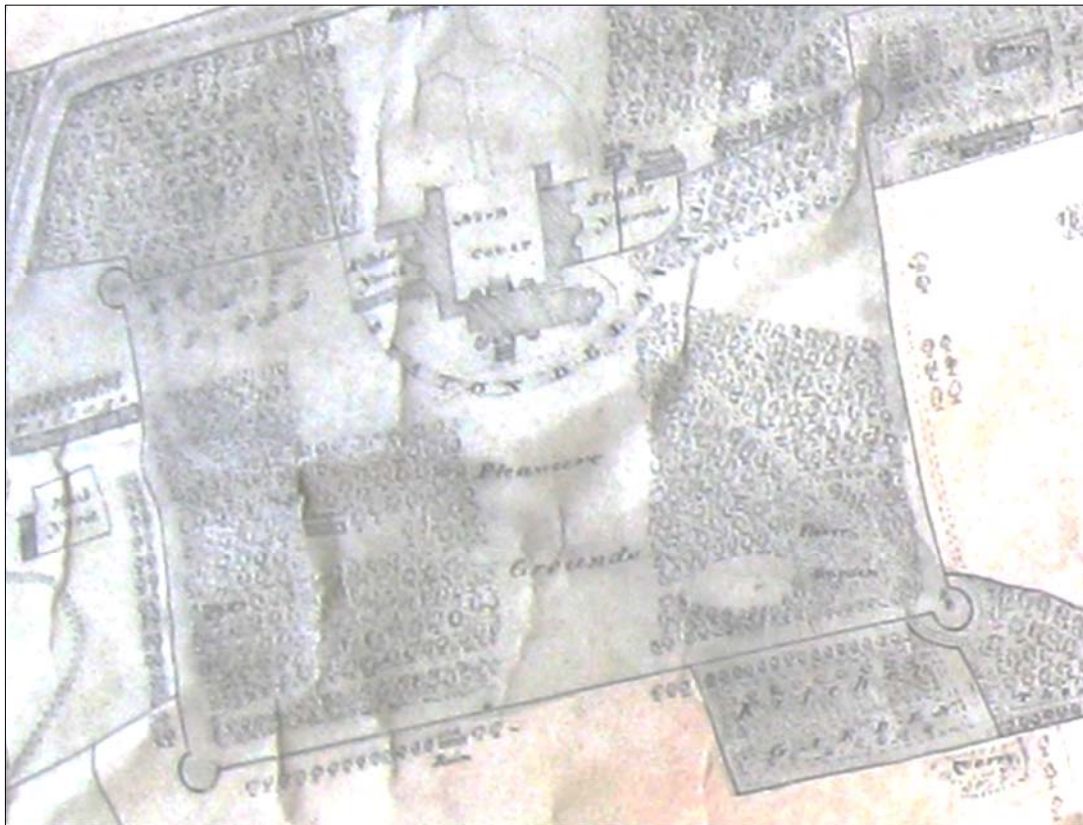


Figure 5: 1808 plan of the estate showing the layout of the early 19th-century gardens (© National Trust).



Figure 6: 1860 First Edition six-inch OS map.

3.24 In 1822 there was a second, more devastating fire at Seaton Delaval that gutted the Central Hall and south-east domestic wing, although the east and west service wings survived relatively unscathed.

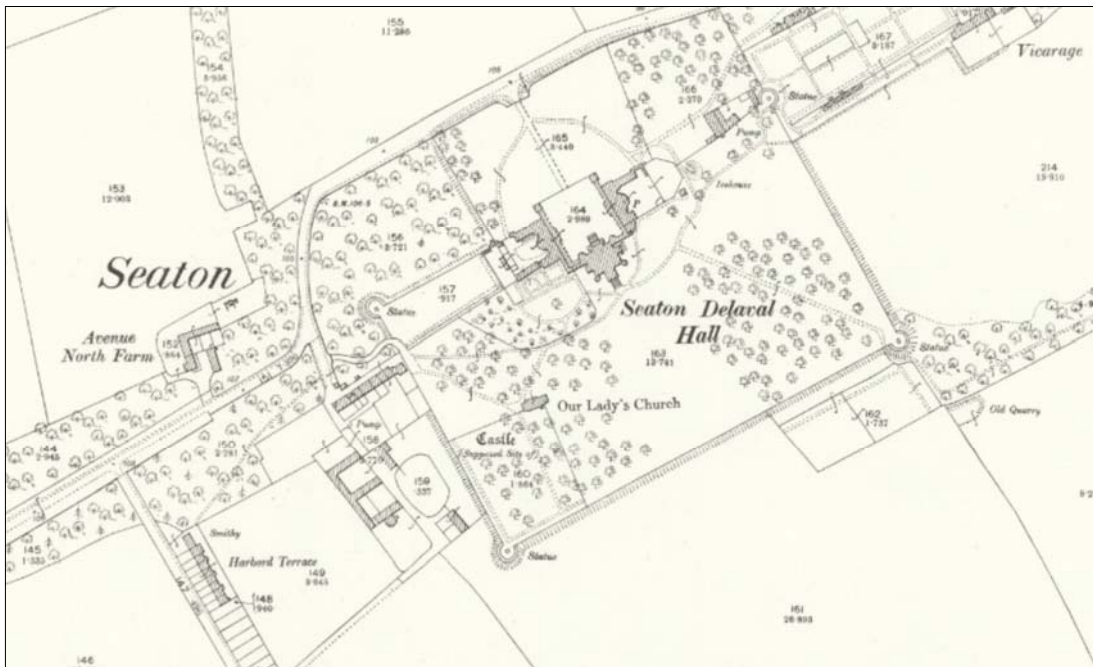


Figure 7: 1897 Second Edition 25-inch OS map.



Figure 8: 1922 Third Edition 25-inch OS map.

- 3.25 The First Edition OS map, surveyed in 1855, shows the remains of the Hall following the fire and the Central Hall is depicted as unroofed (Fig. 6). A new garden is shown laid out to the south-west of the building, to the rear of the potting shed. Associated with this is a D-shaped enclosure that survives in the layout today. A block of trees, set in three rows, is shown occupying the south lawn, although later maps suggest that this was a short-lived planting scheme.
- 3.26 The Second and Third Edition maps, published in 1897 and 1922 (Fig. 7 and Fig. 8), show a considerable degree of tree felling inside the bastion enclosure, breaking up the formal edges of the woodland blocks. The Church of Our Lady became the parish church in 1891 and in association with this the area around the church was given to the Parish and cleared to establish the graveyard.

### *The 20th-century gardens*

- 3.27 Throughout much of the 20th century, the Astley family lived at their estate at Melton Constable in Norfolk, leaving a resident agent to manage their affairs in the North. The Hall was requisitioned by the military during both the First and Second World Wars. In the mid-1950s Edward Astley, the 22nd Baron Hastings, inherited the Hall and made preparations to open the estate to the public for the first time. He gave the later-famous garden designer James Russell one of his first commissions to design the formal gardens which now occupy the north-west quadrant of the bastions (Newman 2017, 55). Further improvements to the grounds were planned but not executed.
- 3.28 In 1990s Lord and Lady Hastings moved permanently to Seaton Delaval Hall and remained there until their deaths in 2007. In 2009, the National Trust acquired Seaton Delaval Hall through the Government's Acceptance in Lieu scheme and following a national fund-raising campaign which included significant local community involvement. Work began on 'The Curtain Rises' in 2018, which was an ambitious conservation project, part funded by a £3.7 million National Heritage Lottery Fund award. It entailed a programme of critical repairs to stabilise and consolidate the built heritage of the estate, and introduction of a suite of installations and new facilities to enhance the visitor experience.

## **4.0 SCOPE OF WORKS**

- 4.1 This report covers packages 4, 6, 7, 8, 9 of a series of 15 AWP's, devised to provide archaeological mitigation during The Curtain Rises conservation works. The individual elements covered are illustrated on Figure 2. All of the redevelopment work was

assiduously designed to cause minimal impact to both sub-surface archaeology and the remaining historic fabric wherever possible.

- 4.2 Package 4: north-east bastion repairs. Pre-intervention recording was followed by monitoring during deep excavations around the internal perimeter of the north-east bastion to enable installation of two concrete ring-beams (set 1m apart vertically) designed to stabilise the structure (National Trust 2018b).
- 4.3 Package 6: north-west bastion repairs. Pre-intervention recording and monitoring during initial excavations by contractor around the perimeter of the north-west bastion and during repairs to adjoining sections of the north and north-west ha-ha walls (National Trust 2018c). Following the work in the north-east bastion, which demonstrated that deep foundations would not be necessary, the scope of works inside the north-west bastion was reduced.
- 4.4 Package 7: south-east bastion repairs. Pre-intervention recording and monitoring during initial excavations by contractor around the perimeter of the south-east bastion and during repairs to adjoining sections of the east and south-east ha-ha walls (National Trust 2018d). Again, the initial scope of works was reduced following the consolidation of the north-west bastion.
- 4.5 Package 8: landscape works, south-east woods. Archaeological monitoring and investigation during landscape improvements, this included excavation down to subsoil of 1m-square trial pits in advance of tree and shrub planting, additional evaluation trenching and targeted excavation as required, and monitoring during groundworks (National Trust 2018e).
- 4.6 This package also included archaeological monitoring during the construction of a path to the east of the Central Hall that marked out the plan of the lost south-east range (Fig. 2). This involved the removal of topsoil to a depth of 0.15m within the footprint of the walkway and installation of a gravel path.
- 4.7 Monitoring was also maintained during the setting out of a new access route leading to the Hall basement, and installation of replacement fencing to the south-west. Some of this work was monitored by the National Trust Archaeological Consultant Mark Newman, and results included in this report.

4.8 Package 9: landscape works, north-west woods. Archaeological monitoring during foundation excavations for new play equipment and path works (National Trust 2018f).

## 5.0 STANDARDS AND GUIDELINES

5.1 Work was carried out in accordance with the following published standards and guidelines of practice:

- *NPPF National Planning Policy Framework* (MHCLG 2019);
- *Standard and guidance for an archaeological watching brief* (ClfA 2014a);
- *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (ClfA 2014b);
- *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide* (Historic England 2015);
- *A Strategy for the Care and Investigation of Finds* (English Heritage 1995);
- *First Aid for Finds* (Watkinson and Neal 2001); and
- *Written Scheme of Investigation, Seaton Delaval Hall* (National Trust 2018f).

## 6.0 AIMS AND OBJECTIVES

6.1 Given the high potential for the survival of post-medieval remains associated with the construction of the 18th-century bastions and development of the landscaping schemes around the Hall, together with the moderate potential for Tudor or medieval deposits, the NCC Assistant County Archaeologist requested that archaeological monitoring be conducted during groundworks; this work also subscribed to and met the National Trust's conservation management practices.

6.2 The aims of this work were to prospect for and identify archaeological remains to secure their survival through detailed design modification where practical or to 'preserve by record' any archaeological remains of necessity compromised as a result of construction. Especially in the south-east and north-east woods, archaeological works were phased to inform iterative development of the work's designs and latterly to monitor minimally invasive groundworks as they took place.

6.3 A limited amount of historic building recording was also requested in relation to aspects of the standing structures including the ha-ha wall, statue bases and bastions.

6.4 The objectives of the monitoring were to:

- establish the presence, nature, extent, preservation and significance of any archaeological remains;
- provide a detailed record of any such archaeological remains;
- where preservation *in situ* was not achievable, recover and assess any associated structural, artefactual and environmental evidence;
- undertake a programme of investigation that meets with national and regional standards (Historic England 2015; ClfA 2014a–d); and
- prepare an illustrated report on the results of the archaeological monitoring (to the satisfaction of the planning conditions) to be deposited with the NCC Historic Environment Record (HER) and National Trust Sites and Monument Record.

## 7.0 METHODOLOGY

- 7.1 As part of AWP 4, two trenches were excavated across the interior of the north-east bastion to establish the construction of the feature and nature of any related backfill deposits. Once the sequence of deposition had been established, much of the interior fill of bastion was removed by the contractor under archaeological supervision. The structure was then recorded. Structural information garnered by the architects during these investigations led to modifications in the proposed stabilisation of the other two bastions, reducing the level of impact on the historic fabric and surrounding archaeology. The scope of the archaeological work required as part of AWP 6 and 7 was also reduced accordingly.
- 7.2 Initial investigations conducted in the south Pleasure Ground as part of AWP 8 comprised excavation of a series of trial trenches and test pits located to investigate visible landscape features and buried earthworks, as well as provide representative sample of the sequence of soil deposits across the site. The majority of these were excavated by hand, including a large number of pits for tree and shrub planting which became *de facto* test pits. This enabled the sampling of deposits across a wide area without causing disruption to the landscaping programme.
- 7.3 In the north-west wood, foundation trenches for the playground equipment were excavated by the landscaping contractor under archaeological supervision as part of AWP 9 (Fig. 2).
- 7.4 All development works resulting in sub-surface intervention were monitored under a watching brief. Where a mechanical excavator was utilised, this was fitted with a



- toothless bucket. Where structures, features, deposits or finds of archaeological interest were exposed, mechanical excavation ceased so that the investigating archaeologist had chance to clean, assess, and excavate by hand where appropriate, then sample and record features and finds. A similar process was followed where the topsoil and overburden were dug by hand by the client's contractor.
- 7.5 A full record (written, drawn and photographic, as appropriate) was made using pro-forma record sheets. Plans and section drawings were drawn at 1:50, 1:20 and 1:10 scales as appropriate. The location of any archaeological features, together with the edges of the excavated areas, were recorded in relation to readily identifiable and permanent structural features on the ground or surveyed in with a sub-centimetre-accurate GPS.
- 7.6 A full photographic record was maintained in digital format. This included general site shots, shots of each excavation area, and shots of individual features and groups of features. All photographs included a suitable scale and were recorded on a photographic register noting the subject and direction of each shot. A catalogue of all photographs has been submitted with the site archive.
- 7.7 All stratified finds were collected by context and individually recorded in three dimensions where appropriate. Unstratified finds were collected where it was considered that they contributed significantly to the project objectives or were of particular intrinsic interest. All finds and pottery were retained for rapid assessment, except where material was demonstrably modern.
- 7.8 Animal bones and other finds were recovered, processed and stored in accordance with established guidelines (English Heritage 1995; Watkinson and Neal 2001).
- 7.9 No deposits were encountered that were considered suitable for bulk paleoenvironmental sampling, although consideration of such potential was maintained throughout.
- 7.10 Following excavation, the analysis and reporting of artefacts and ecofacts was undertaken by NAA in-house staff, or other nominated specialist suppliers in accordance with NAA's approved list of contractors. All specialist reports are included in full at the end of this report, and the results incorporated into the final discussion and analysis.

7.11 All other aspects of the WSI (National Trust 2018f) were followed unless otherwise agreed with the NCC Assistant County Archaeologist and National Trust Archaeological Consultant.

## 8.0 RESULTS

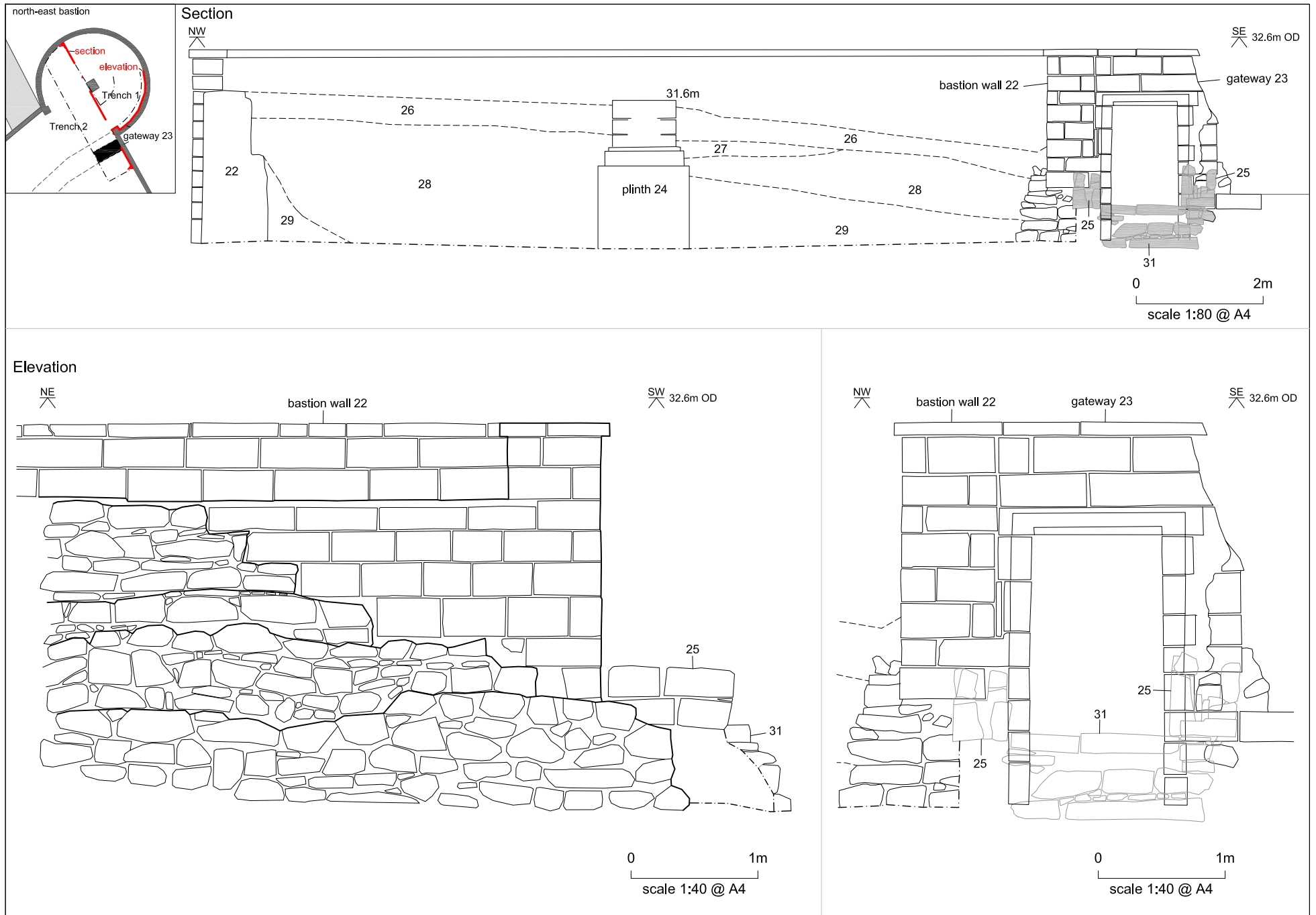
### Archaeological Work Package 4: north-east bastion repairs

8.1 The repairs to the north-east bastion began in December 2018. The conservation works included the installation of two concrete ring-beams (set 1m apart vertically) around the bastion to stabilise the structure (National Trust 2018b). Pre-intervention recording was conducted prior to the start of work on site, and monitoring took place during excavations. The investigations informed a greater understanding of the method of construction, and exact form of the bastion with the aim of informing the final stabilisation proposals and facilitating modifications as required.



*Plate 1: interior face of wall 22 with infill 28 and 29 visible (facing north).*

8.2 Two trial trenches were initially excavated across the interior of the bastion, which were subsequently extended to include works relating to the adjacent pedestrian gateway 23 and ha-ha wall 34 (Fig. 9). Trench 1 initially extended from statue plinth 24 at the centre of the bastion to the north perimeter wall (22). This rectangular trench measured c.5m by 4m at surface but was stepped in two tiers during excavation for safety reasons, culminating in a central 1m-wide slot. The internal masonry face of the bastion was



The Pleasure Grounds: north-east bastion trench locations, elevations and section drawings.

Figure 9

exposed, hand-excavated and recorded as the work progressed. This provided evidence of the sequence of construction (Plate 1). Once the sequence of deposition had been established, and the absence of any intermediate structural features confirmed, much of the interior fill of bastion was removed by the contractor under archaeological supervision.

### *Construction of the bastion*

- 8.3 The exterior face of the bastion was c.3m high and was constructed of regularly coursed small ashlar. This was roughly hammer-dressed and bonded with a creamy-white lime mortar. The structure was topped with rectangular sandstone coping (Plate 2).
- 8.4 The evidence suggested that, prior to construction, the ground around the bastion was stripped of all topsoil and subsoil down to the natural underlying clay. The structure was then erected from ground level in three stages comprising: (a) foundations, (b) mid-section, and (c) ashlar upper section with sandstone copings (Plate 1). The foundation course was c.1.2m wide and constructed of large, coursed sandstone blocks that were partially mortared and bedded onto the natural glacial clay. Redeposited clay (29) was packed both behind and into the interstices between the stonework to provide additional support (Plate 3).



*Plate 2: external face of north-west bastion, facing south-east.*

- 8.5 The mid-section was stepped c.0.25m in from the face of the foundation course below. It stood c.1.00m high and, like the foundations, most of it was constructed of coursed rectangular blocks, the exception being at each end of the bastion where small ashlar were used (Plate 3). This indicated that the majority of the masonry was always intended to be concealed below ground with only the two ends exposed. The upper section of the wall was stepped 0.3m in from the face of the mid-section and comprised two courses of regularly coursed small ashlar, matching the external face of the structure.



*Plate 3: stepped construction courses within the entrance to the bastion, with ashlar courses at and above the turfline.*

- 8.6 After construction, the area within the bastion was backfilled with a mix of soil and sandstone rubble (28) to a point about halfway up this second stage of masonry. Above this, topsoil was redeposited up to the base of the ashlar stonework and turfed over. Only a few finds were recovered from the topsoil, including fragments of ceramic tile and a few sherds of modern pottery.
- 8.7 Trench 2 was located on the lower slope of the bastion interior and initially extended for c.8m from the central plinth to the pedestrian gateway to the south (Fig. 9; Plate 4). The sequence of deposits was similar to those recorded in Trench 1, and showed that the ground had been cleared of all overlying soil and vegetation prior to original construction. The trench was eventually extended to north side and a section drawn which included the bastion, gateway and ha-ha, and related deposits (Fig. 9).

- 8.8 At the southern end of the trench, retaining wall **25**, which extended west from the base of gateway **23**, was aligned with the turfed bank of the bastion. This suggests the existing grassy slope, that extended from the bastion wall towards the interior of the garden, was probably part of the original 18th-century design, although wall **25** itself may relate to the containment of the bank when gateway **23** was added.



*Plate 4: stepped excavation of Trench 2 with statue plinth **24** on the left and retaining wall **25** in the foreground (facing north).*



*Plate 5: excavation through the infill of the bastion with exposed statue plinth **24** (facing east).*

- 8.9 The central statue plinth comprised three courses of dressed ashlar, set above a foundation of heavily mortared rubble sat on a base of sandstone. The foundation measured c.1.3m deep and was deeper than those for the surrounding bastion wall, extending down into the natural clay (Plate 5).



*Plate 6: gateway 23 prior to excavation showing the slope of the bastion bank.*



*Plates 7, 8: (left) gateway 23 with step 31 and retaining wall 25 during primary excavation; (right) full extent of gateway exposed prior to renovation.*

- 8.10 Gateway 23, was located to the south-east of the bastion and provided access from the

Pleasure Grounds into the walled garden. The ha-ha wall at its northernmost end was the same height as the bastion, and clearly abutted its external face. Both structures were capped with the same type of sandstone coping stones (Plate 6). Immediately south of gateway, the wall sloped down to an external height of 0.8m above modern ground level and had lost most of its coping stones. It continued south-south-east to form the eastern boundary of the pleasure garden enclosure (Plates 7–8; Fig. 9).

- 8.11 The slope from the gate to the ha-ha wall seemed original, although the capping has been lost. Both the external face of the wall, and a single upper course of the inner face, were constructed of ashlar, measuring up to 0.6m by 0.23m by 0.16m, finished with decorative pecking. The blocks were bonded with a hard, buff-coloured mortar, and a 0.12m gap between the two faces was infilled with a core of small-stone rubble and mortar.
- 8.12 Rubble foundations (31/145) for a short flight of steps were observed on the west side of the gateway. The base of the feature was 1.7m wide and 1.05m deep and survived to a height of at least 0.22m. It was constructed of mortared sandstone rubble, individual stones measuring up to 0.42m by 0.4m by 0.14m. The steps (25) were large stone slabs bonded with cream mortar, edged by reused ashlar blocks and sat above the foundation course of the bastion. The ground level prior to excavation, where it banked around the gateway, was 0.7m higher than the level of the bottom step. This, as well as the fact that the gateway clearly abutted the bastion wall, indicates both were a later addition.

#### **Archaeological Works Package 6: north-west bastion repairs**

- 8.13 The north-west bastion was similar in size to the north-east bastion, and shared the same type of construction (Plates 9 and 10).
- 8.14 A small rubber-tracked excavator removed the infill around the interior of the bastion, taking great care not to disturb the statue. Soils in the interior were reduced by a depth of 1.2m, and the internal face of the masonry was cleared by hand by the archaeologist (Plate 10). The nature of the infill was similar to that observed in the north-east bastion and consisted of heavily compacted crushed stone rubble with mixed sands and clays (218). This material contained no finds. The reduction in the required depth of excavation meant that only the upper ashlar course of the internal wall face was exposed (219). This was repaired and consolidated prior to the reinstatement of internal landscaping.





*Plate 9: initial machine excavation and removal of soil within the north-west bastion.*



*Plate 10: interior face of the north-west bastion after hand clearance, with weather damage to the ashlar courses and foundation plinth in the base of the trench.*

### Archaeological Works Package 7: south-east bastion repairs

- 8.15 The interior of the south-east bastion was excavated in a similar manner to that of the north-west, except for the addition of a small hand-excavated trench in the centre to investigate the apparent absence of a statue plinth. This measured 2m by 0.5m and was excavated to a depth of 0.2m beneath the topsoil, revealing an area of disturbed rubble (220) marking the probable location of the former plinth. Investigation stopped at the required depth of intervention and no worked masonry or foundations were recorded at this depth (Plate 11).



*Plate 11: rubble deposit 220 in the centre of the south-east bastion.*

- 8.16 The trench for the ring-beam was excavated to a depth of 1.2m around the internal perimeter of the bastion to a maximum stepped width of 1m at the highest point. The bastion infill was the same as that observed elsewhere, comprising compacted sandstone and clay (221). As for Trenches 2 and 3, the interior of the wall was hand cleaned and recorded by the archaeologist on site (Plate 11).
- 8.17 Excavation of all three bastions confirmed they all shared the same method of construction and subsequent sequence of infill, comprising redeposited natural clay at the base. No finds were recovered from these deposits.



*Plate 12: interior face of the south-east bastion following excavation and hand cleaning.*

- 8.18 No works were conducted on the south-west bastion which lay outside National Trust ownership.

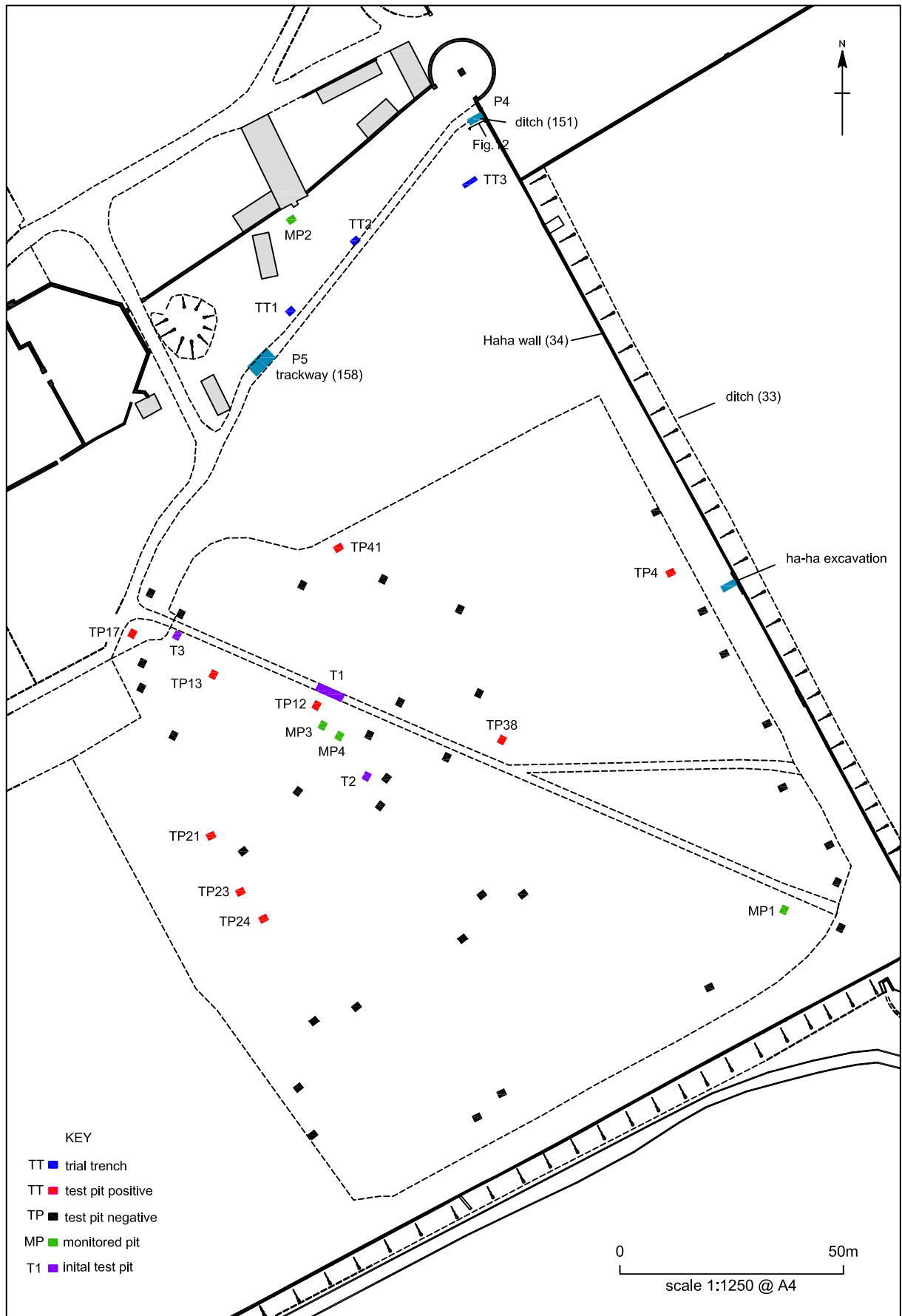
#### *Ha-ha repairs*

- 8.19 A pre-intervention record of the ha-ha'd enclosure was prepared by the architects prior to work commencing on site. Monitoring during any repairs of sections of the ha-ha associated with each bastion was requested as part of AWP 5, 6 and 7. However, except for the dismantling and rebuilding of a section of the east ha-ha, where the stonework was bulging out of alignment, the repair work predominantly comprised raking out joints and replacing of a small number of missing ashlars, as well as replacing coping stones and attending to soft capping. An intermittent watching brief was maintained during this work.
- 8.20 The ha-ha encompasses a rectilinear enclosure, measuring c.355m south-west to north-east by c.220m south-east to north-west (Fig. 2). It comprised three elements: (a) a boundary wall c.1.8m high; (b) substantial exterior ditch on the south, east and west sides, and (c) four corner bastions. A small section of ditch adjacent to the north-west bastion further separates the adjoining woodland from the pleasure gardens.



*Plate 13: southeast-facing section of wall 34 with collapsed ashlar facing and heavily mortared rough-coursed inner face exposed. Investigation test pit just visible to the rear.*

- 8.21 The ha-ha wall (34) was faced with hammer-dressed ashlars, measuring 0.3m wide by 0.25–0.3m high and up to 0.7m in length, behind which were courses of roughly squared and heavily mortared sandstone blocks and rubble (35) (Plate 13). The ditch was typically 1m deep with the outer edge of the cut c.3m from the wall face. The level of the interior of the ha-ha'd enclosure was on average 1m above that of the surrounding landscape.
- 8.22 In February 2019, archaeological monitoring was conducted during the repair of a damaged section of the ha-ha wall (34) to the south of the north-east bastion. This work was conducted as part of AWP 5 relating to the walled garden, and is detailed in a separate report (NAA 2021).
- 8.23 In March 2019, a continuous watching brief was maintained during the dismantling and rebuilding of a section of damaged wall c.54m to the north of the south-east bastion (Fig. 10). As part of this work, a test pit was excavated behind the ha-ha wall, primarily to understand the composition of the feature. This was intended to provide a greater understanding of the construction of the ha-ha wall, its relationship to the ditch, and the nature of deposits within the Pleasure Ground enclosure.
- 8.24 The turf behind the heavily damaged section of ha-ha wall was removed to create a shallow 2m<sup>2</sup> test pit, exposing the rear face of the feature. A small portion of the wall



*The Pleasure Grounds: location of investigations in south-east woods (AWP 8) Figure 10*

backfill was then removed, revealing a possible linear cut (33) situated c.1.7m from the inner face of the wall. This was partially excavated (Plate 14).



*Plate 14: test pit behind the ha-ha, with small evaluation of the backfill 35.*

- 8.25 The ha-ha comprised a dressed sandstone ashlar exterior face, that was finely jointed and evenly coursed, featuring a chamfered edge. Behind this were roughly coursed sandstone blocks that were heavily mortared together and packed with rubble. Through stones bonded the interior with the outer face. The ha-ha ashlar were more substantial than those used in the bastion in order to withstand the pressure from the packed material to the rear, which formed a revetment to the higher ground of the pleasure garden.
- 8.26 The structure was topped by sandstone coping to the front, and turf layer to the rear. There was the suggestion of a buried soil deposit below the rubble backfill, but there was insufficient space within the test pit to investigate this further.

#### **Archaeological Works Package 8: landscape works in the south-east woods**

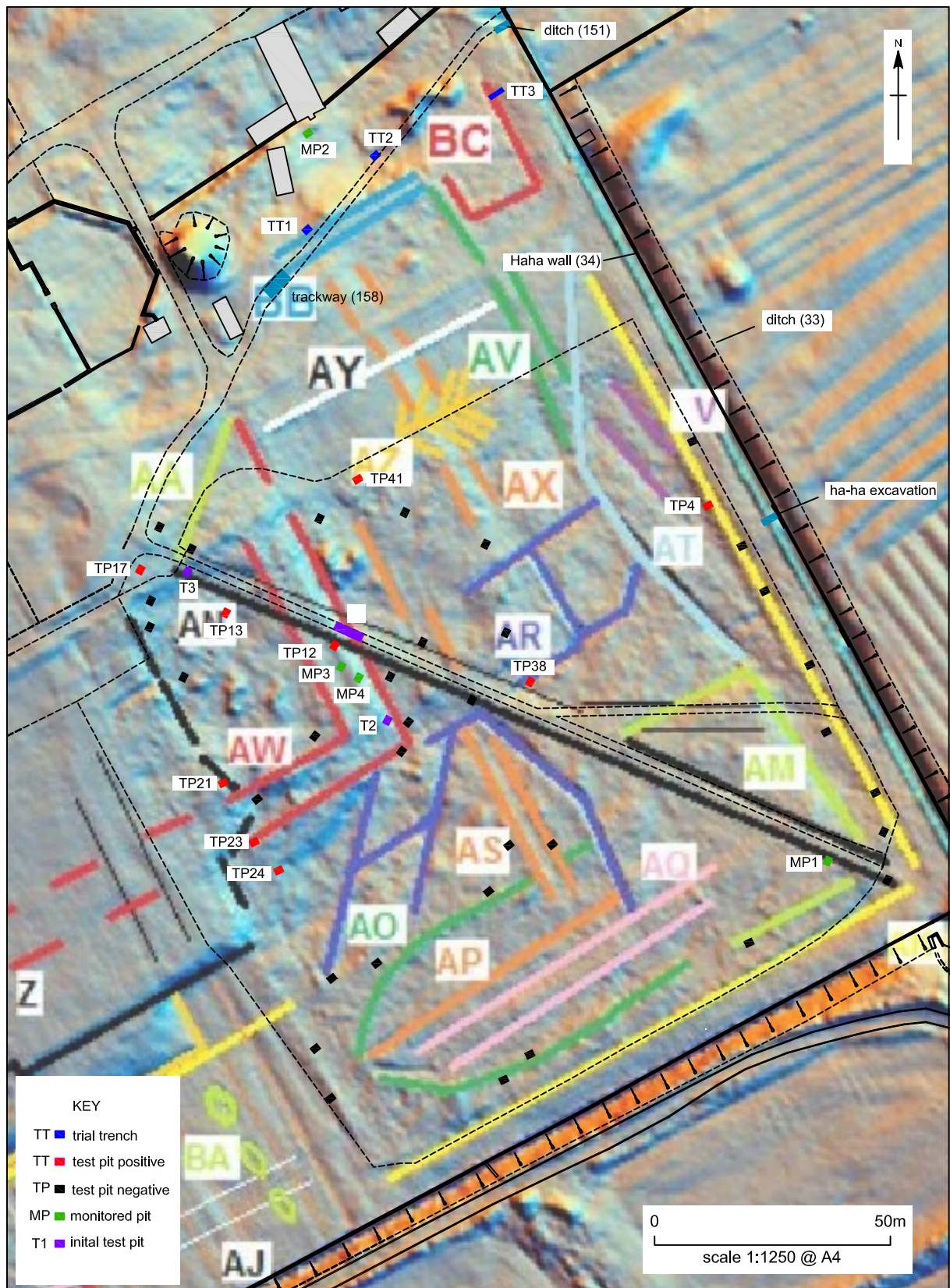
- 8.27 Works in the south-east woods comprised the excavation of a series of test pits, trail trenches and monitoring holes across the area (Fig. 10) to ascertain the presence, nature, form, date and extent of any archaeological deposits or features across the area and, where possible, inform a greater understanding the development and use of the south-eastern half of the pleasure garden (National Trust 2018e). The strategy varied at different

stages (described below) in accordance with the demands of the landscaping contractor, and predominantly took place between September and November 2019 (Fig. 2, Fig. 10).

- 8.28 The work was informed by the 2017 LiDAR survey, commissioned from Bluesky International by the National Trust, and discussed in the earlier assessment of the documentary and archaeological evidence (Newman 2017).
- 8.29 A limited number of test pits had previously been excavated across the area in 2017 as part of site investigations to inform the development of the landscape scheme. Four c.1m<sup>2</sup> test pits were excavated, one on each side of the area. A similar sequence of deposits was recorded in all, comprising a natural yellow/grey clay till, above which was a grey-brown silty clay subsoil that varied in depth up to 0.6m, above which was topsoil. No archaeological finds or features were encountered in any of the test pits (Solstice 2017).
- 8.30 A further three pits were excavated in 2018 (Newman 2018b). Two on the west side of the south-east woods area and one on the north side. Again, no archaeological finds or features were identified, although the presence of carbon flecks in some lower deposits was noted with caution.

#### *Initial excavation of landscape features*

- 8.31 Investigations in the area began with the excavation of three trenches on the north-west side of the south-east woods (Fig.10, T1–3). This was undertaken as part of the renovation of existing pathways. Trenches 1 and 2 both measured c.0.5m<sup>2</sup> and were hand-excavated down to natural subsoil. Trench 3 was larger, measuring 5m by 2.5m, and was partially machine-excavated under archaeological supervision.
- 8.32 Trenches 2 and 3 were located to investigate a possible earthwork identified on the 2017 LiDAR survey (Fig. 11, AW). This was visible on the surface as a slight embankment where T3 cross the existing pathway. After machining off the topsoil, the area was hand cleaned and excavated to expose a stony deposit (55) at the south-eastern end of the trench (Plate 15). This lay in a shallow hollow following the line of the bank and running at an angle to the existing path. The deposits comprised small angular stones heavily compacted into a dark silt, up to 0.2m deep, which formed a distinct edge. Deposit 55 sat directly above the natural subsoil (60).



*The Pleasure Grounds: location of investigations overlain on LiDAR data, based on Newman 2017, Fig. 32 CA 2*

*Figure 11*



- 8.33 Both T1 and T2 contained similar compacted stone deposits that may have formed a bedding layer for an earlier trackway visible on the LiDAR (Fig. 11, AN), which remained partially discernible on the ground.



*Plate 15: linear stone deposit 55 running across the line of the alignment of the current pathway in T1.*

#### ***Results of test pit evaluations***

- 8.34 In October 2019, prior to an extensive scheme of tree and shrub planting, 41 test pits were hand-excavated across the south-east woodland (Fig. 10). The archaeological excavation of the pits maximised the amount of information gathered during the landscaping works without unduly hindering the progress of the scheme. This enabled a wide area of the pleasure gardens to be sampled and facilitated a greater understanding of the deposit profile of the site. It also allowed for the targeted investigation of a number of anomalies identified on the LiDAR survey (Fig. 11).
- 8.35 In general, the deposit profile of the majority of the pits comprised a grey-brown silty clay subsoil, with a maximum depth of 0.6m, beneath a layer of woodland topsoil that overlay a yellow-grey sand or clay natural horizon. Unsurprisingly, there was extensive evidence of bioturbation and root disturbance.

8.36 Only nine of the test pits contained evidence of archaeological features. These have been grouped together in the following categories.

*Woodland trackways*

8.37 Three pits (TP 12, 13, 17; Fig. 10) contained a thick deposit of angular stones lying directly on subsoil (Plate 16). These were clustered in the north-west area of the woods, in close proximity to the line of the modern pathway. The compaction of the layer suggested deliberate surfacing and may relate to an old footpath or track running north-west to south-east. This would have been located to the south-west of the modern path, although a precise alignment could not be determined given the limited scope of the excavations. However, no feature is shown in this location on any of this historic mapping, and finds of 19th- to 20th-century date, recovered from a humic soil (87) sealed beneath the stony surface in TP13, suggest the path was probably modern in date. The same surface was also seen in MP3 and MP4 (see below).



*Plate 16: stone deposit 86 directly beneath a thin layer of topsoil in TP12.*

8.38 TP12 was a 1m<sup>2</sup> trench excavated to a depth of 0.5m (Plate 15). Directly beneath 0.14m of topsoil (80) was a 0.15m-thick layer of compacted stones (86), which in turn overlay 0.3m of subsoil (81). Deposit 86 equated with context 55 recorded in the earlier trial trenches (TT1–3).

- 8.39 TP13 was a 1m<sup>2</sup> trench excavated to a depth of 0.65m. As in TP12, 0.14m of topsoil **80** sealed a 0.1m-thick layer of compacted stones (**86**). This was bedded onto 0.3m of silty soil **87** which overlay subsoil **81**. Layer **87** contained fragments of clay tobacco pipe and glass and potsherds of 19th- to 20th-century date.
- 8.40 TP17 was a 1m<sup>2</sup> trench excavated to a depth of 0.6m, revealing 0.2m of modern topsoil sealed by 0.4m of rubble and building debris, which in turn overlay stone layer **86**.

*Linear ditches*

- 8.41 TP38 was a 1m<sup>2</sup> test pit located in towards the centre of the south-east woods. This was excavated to a depth of 0.4m. It contained a linear feature (**171**) identified directly beneath woodland turf, which appeared to be aligned south-east to north-west, cut into natural clay (**82**) and infilled with root-disturbed topsoil (**80**). The ditch had a shallow U-shaped profile and was 0.38m deep in the excavated area (Plate 17). This may have provided drainage for the diagonal path shown on the LiDAR (Fig. 11, AN) connecting with south-east bastion. This path was reinstated as part of the Curtain Rises landscape works.



*Plate 17: woodland landscape feature 171 in TP38.*

- 8.42 TP4 on the east side of the area, was a 0.5m by 1m test pit excavated to a depth of 0.8m. This was located on the course of a linear feature (V) observed on the LiDAR running parallel with the ha-ha (Fig. 11). Evidence of a shallow south-east to north-west gully (**84**) was observed within TP4, measuring 0.65m wide and 0.15m deep. This cut through

0.3m of a dark organic silt (83) and was filled with a homogenous dark grey silty-sand (85) with few inclusions and no finds. The feature was probably a drainage gully, similar to several similar water-logged linear features still visible across the pleasure gardens.

*Ground consolidation*

- 8.43 Three test pits were excavated in a line close to the north-western boundary of the woods (TP23–24; Fig. 10), all of which contained brick and stone rubble deposits. These were probably associated with relatively recent attempts to consolidate water-logged ground in this area after the failure of field drainage for the south portico lawn, to the west.



*Plate 18: dumping and consolidation layer 93 in TP23.*

- 8.44 TP21, the northernmost test pit, measured 0.5m by 1m and was excavated to a depth of 0.55m. Below the woodland turf was a rubble levelling and consolidation layer (88), up to 0.2m thick, dumped over 0.2m of buried subsoil (81).
- 8.45 TP23 was a 0.8m by 1.1m test pit excavated to a depth of 0.55m. Below the woodland turf was a rubble levelling and consolidation layer (93) up to 0.3m thick, dumped over slope of buried subsoil (81) (Plate 18).
- 8.46 TP24 was a 1m<sup>2</sup> trench excavated to a depth of 0.6m. Below the woodland turf was a rubble levelling and consolidation layer (89) up to 0.2m thick, dumped over compacted silty clay (91), which was capped by a level deposit of angular sandstone fragments (90).

*Field drainage*

- 8.47 TP41 was located on the north edge of woodland in an area heavily disturbed by modern activity. It measured 0.8m by 0.5m and was excavated to a depth of 0.6m. A ceramic field drain was identified within the test pit, running west to east towards the ha-ha.

*Monitoring of landscaping work*

- 8.48 After completion of the test pitting, further monitoring work was conducted by the landscape contractors who notified the archaeologist of major variations in the soil matrix, and retained any artefacts found during excavation. A large nodule of blue glass slag (107) was retrieved from MP1 (Fig. 10). Although this material was commonly found in the upper soil deposits across the site, this example was considered to be worthy of retention for possible future display because of its size and colour. In addition, a concentration of finds (106) was recovered from the Pleasure Grounds in the area immediately to the south of the Brewhouse wall during the planting of a new shrubbery.
- 8.49 The stony surface (86) observed in TP12, TP13 and TP17 was also recorded in MP2, MP3 and MP4 and probably formed part of the same feature.

*Archaeological investigations in advance of construction of the north-east visitors' access path*

- 8.50 As part of the landscaping works, a new principal visitor access path was created running across the north-east section of the pleasure garden, linking the promenade walk with gateway 23 (Fig. 2). This reinstated a former 'allee' shown on early plans of the estate (Newman 2017b). Prior to the commencement of groundworks, three archaeological trial trenches (TT1–3) were excavated along the course of the new route.
- 8.51 Trench 1 (TT1) was located at the top of a gentle incline and TT2 at the base (Fig. 10). To the east, next to the north-east bastion, TT3 was located to the south of the proposed route evaluating an apparent linear feature running parallel to the ha-ha, visible on the LiDAR (Fig. 11 BC). A 1.5m by 0.6m sondage was excavated in this area, aligned perpendicular to the potential earthwork.
- 8.52 TT1 was a 1m<sup>2</sup> trench excavated to a depth of 0.6m. At the base was a linear hollow (71) which was at least 0.2m deep, running roughly north–south along the line of the slope of the local ground surface. This was filled by a light brown clayey-sand with small, rounded pebbles (70), which was a possible early soil horizon. The pronounced slope at the base of the trench ran counter to the gradient of the present ground surface and,

due to the disparity in height and alignment, cut **71**. This was probably the result of human agency rather than natural accumulation (Plate 19).



*Plate 19: feature 71 filled by buried soil 70 and cobbled layer 69 visible in section.*

- 8.53 Deposit **70** was sealed by a layer (0.05–0.15m thick) of compacted angular stones bedded into a dark grey silty-sand (**69**) up to 0.3m thick. Above was a 0.1m layer of topsoil (**68**).
- 8.54 TT2 was a 1m<sup>2</sup> trench excavated to a depth of 0.55m, located at the base of the incline beneath TT1, meaning stony layer **69** was observed at significant depth below the current ground level (Plate 19) and was bedded directly onto natural sandstone. At the base of TT2 a shallow, but pronounced, linear hollow (**72**) was recorded in the north-west corner, running counter to the gradient of the present ground surface.
- 8.55 The similarity in trend and profile demonstrated by the features in both TT1 and TT2, with each running counter to the surface topography of the slight hillslope, might indicate the remains of early agricultural activity. Evidence of extant ridge-and-furrow cultivation was observed in the field to the east (Hare Park).



*Plate 20: stone surface 69 beneath the topsoil in TT2.*



*Plate 21: step 74 cut into the root-disturbed natural clay in TT3, with slope of possible furrow 75 in the west.*

8.56 TT3 was a 1.5m by 0.6m trench excavated to a depth of 0.55m, located 10m west of the ha-ha wall, to the south of the proposed pathway. It was aligned north-east to south-

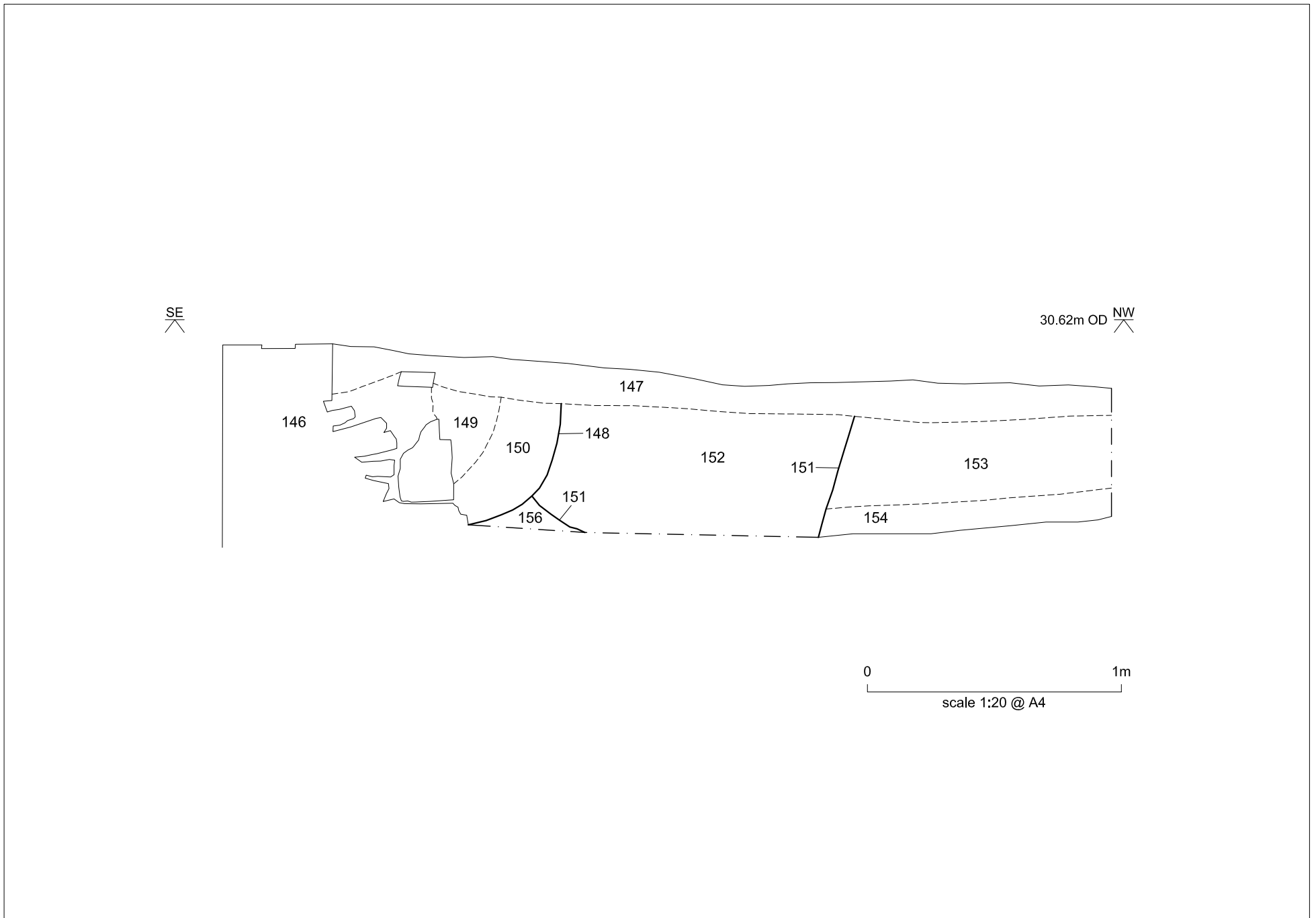
west, and excavated to investigate an anomaly on the LiDAR survey which presented on the ground as slight change in ground-level running parallel to the ha-ha. A possible earthwork, feature **74**, was evident as a small but vertical 0.2m step in the natural sandy clay, with a flat surface to the east (Plate 20).

- 8.57 The western half of the trench had a pronounced 0.15m-deep incline (**75**) with a profile similar to **71** and **72**, and also appeared to follow the same alignment. Both features were filled and covered by a possible buried soil horizon (**73**) of light brown sandy silt with small stones, which was similar to (and possibly the same as) deposit **70** in TT1. The buried soil contained three abraded Roman potsherds as well as a sherd of medieval pottery and a single sherd of post-medieval pottery.
- 8.58 The area was covered by a homogenous topsoil (**68**), over 0.3m thick, of brown sandy-silt with small, rounded stones.

*Monitoring during construction of the principal visitors' access path*

- 8.59 Work on the construction of the visitor access path commenced in September 2019 (Fig. 2). The area stripped for the new footpath ran from the gateway **23**, up a gentle incline to the perimeter walk around the lost south-east range of the Hall (Fig. 10). The stripped area was c.80m long and typically 3m wide. Much of the central part of the route lay below the required depth for the accessible longitudinal path gradient. Therefore ground reduction had to be carried out at either end of the path to even out the incline, particularly around gateway **23**. Archaeological monitoring was conducted during this work.
- 8.60 At the east end of the route, adjacent to gateway **23**, a sequence of features and deposits were recorded in section immediately inside the ha-ha wall (Fig. 12; Plate 22). The natural drift geology at this location comprised small sandstone cobbles in a matrix of yellow clay (**155**). This was overlain by 0.12m of a stone-free, mid- to dark brown fine sandy-clay buried soil horizon (**154/156**). The absence of stones in this deposit indicated it was probably naturally occurring rather than a buried plough-soil horizon.
- 8.61 Above **154/156** was 0.35m of redeposited clay and cobble subsoil (**153**). These deposits had been cut by a large, steep-sided trench or ditch (**151**) which crossed the stripped area (Fig. 11), running from south-south-east to north-north-west seemingly parallel to the ha-ha. Feature **151** was more than 1.25m wide and over 0.5m deep, continuing below the required level of the excavation, and contained a single fill of dark brown





*The Pleasure Grounds: north-east facing section through features and deposits to the west of gateway 23 at the east end of the path.*

*Figure 12*

sandy-silt (152) containing some small and medium-sized subangular and rounded stones, the lower extent of which was not excavated. The homogeneous nature of this deposit suggested that the feature may have been deliberately backfilled.

- 8.62 The north-eastern edge of feature 151 was cut by construction trench 148 for the ha-ha wall 34/146. At this location, immediately south-south-east of gateway 23, the wall survived to an external height of 0.8m above modern ground level, although it had lost its coping stones. On the inner face of the wall, the upper course of stone facing was supported below ground level by a constructed mass of mortared-stone rubble at least 0.47m wide and more than 0.6m high. Behind this, the construction trench had been backfilled with orange-brown clay (150) containing some lumps of dark brown soil. This deposit was dissimilar to the natural clay at this location and presumably had been brought from another source.



*Plate 22: ditch 151 and foundation trench 148, with steps 31/145 on the left.*

- 8.63 Against the back of the ha-ha structure the clay was overlain by a wedge of greyish brown soil (149), probably filling of shrinkage and subsidence of deposit 150, combined with effects of localised movement in the ha-ha wall. These deposits were sealed by c.0.15m of modern topsoil and turf 147.
- 8.64 There was a c.0.75m difference in the modern ground levels to either side of the ha-ha. In order to provide transition between these differing levels, a rectangular mass of

masonry immediately inside the gateway formed the base of a short flight of three or four steps (**145**); recorded as feature **31** during the excavation of Trench 1 in AWP 4. Part of the construction cut for this structure survived at its north-western side. This was vertical-sided and located 0.28m from stonework **145**. It was filled with loose, voided, small sandstone rubble and mortar fragments. It cut clay **150**, indicating that the steps were a secondary addition to the ha-ha.



*Plate 23: wheel-ruts in pathway surface **158** at the south-east end of the trench.*

8.65 Approximately 68m south-west of gateway **28**, towards the top of the incline south-west of the Brewhouse complex and adjacent to the ice-house (Fig.10, P5), a wide former path surface (**158**) was exposed beneath the modern topsoil. This ran east to west, crossing the excavated area at a shallow angle (Plate 22) and was observed continuing for c.11.5m within the footprint of the new access path (Fig. 10). Surface **158** comprised small pebbles and pea-grit, together with occasional larger rounded stones, set in a matrix of mid-brown sandy clay, and measured up to 2.6m wide. It was fairly level along its course, although cambered along its northern and southern edges. Where excavated, larger unshaped stones along the edges of the surface may be the remains of kerbing, although too little of this was exposed to be certain.

8.66 The surface of **158** was cut by shallow wheel-ruts that were typically c.0.1m wide but only c.0.01–0.05m deep. The two best-preserved examples ran parallel to each other,

set c.1.4m apart. To either side, the sloping edges of the path were overlain by a layer of fine brown sandy-clay soil (159), similar to buried soil 154 seen at the opposite end of the excavations.

*Initial investigations during laying out of the promenade walk*

- 8.67 In addition to the works undertaken by NAA, two watching briefs were, for expediency, undertaken in other locations within the Pleasure Grounds wholly or partially by Mark Newman of the National Trust.
- 8.68 The first of these occurred in early April 2017 when excavations were in progress for laying a promenade walk around the footprint of the lost south-east range of the Hall (Fig. 2). The layout of this proposed path was carefully reproduced from clear depictions of the walk on the estate plans of 1781 and 1808 (Figs 4 and 5). Previous investigations of the site, by geophysics and nearby excavations, indicated that, although substantial remains of the footings of the range were expected to survive at depth, the upper deposits would probably relate only to landscaping post-dating demolition of the remains of the wing in the 1870s. Therefore, excavation depth for the replacement path was limited to 0.15m and was not expected to encounter or impact any archaeological remains.
- 8.69 In the event, the original pea-gravel surface was unexpectedly exposed at the base of excavation in two areas, each measuring c.20m<sup>2</sup>. This was duly recorded and reported (Newman 2017).

*Additional path works during The Curtain Rises delivery phase*

- 8.70 Further monitoring by NAA was conducted during the installation of the promenade walk. Within the footprint of the spiral staircase that formerly served the western end of the lost south-east range, the existing turf was removed by hand and replaced with gravel to delineate the extents of the stairwell and create a passing-space along the path (Plate 24). Along the eastern edge of the Central Hall building the base of the pre-existing ditch had been disturbed by modifications to the Hall drainage, including the installation of a substantial gravelled soak-away. Archaeological monitoring conducted in this area during installation of the drainage had exposed wall footings associated with the lost wing (Solstice 2018) but these lay below the impact level of the new pathway. No other archaeological remains or features were encountered during the promenade walk monitoring works.

- 8.71 To the west of the promenade walk, monitoring was conducted during the installation of a timber-edged pathway running along the east side of the Central Hall, and two routes added to the north to connect with the East Wing and east courtyard (Fig. 2). These were machine excavated to a depth of 0.15m through the topsoil and did not encounter any buried features.



*Plate 24: removal of turf in the stairwell of the south-east range prior to installation of gravelled area.*

- 8.72 The new path to the east of the Hall was installed connecting the ground-floor entrance and Pleasure Ground path with the entrance to the basement beneath the south portico steps (Fig. 2). This area had been investigated in 2017 during the installation of new surface water drains when foundation walls and features associated with the former south-east range were encountered (Solstice 2018). However, the impact of the new path had been mitigated by laying it along the course of a pre-existing ditch around the south-east corner of the Hall; while to the south of the Hall the surface was raised above current ground level to provide a safe gradient.
- 8.73 No archaeological features or deposits of significance were encountered during any of the recent path-work monitoring.

**Package 9: archaeological monitoring in the north-west woods**

- 8.74 Archaeological monitoring was conducted in the north-west woods during the installation of paths and foundations for new play equipment (National Trust 2018f) (Fig. 2). Five test pits had previously been excavated in this area as part of preliminary investigations. No archaeological remains were encountered, although the presence of a quantity of ferrous-rich material did suggest the potential for industrial activity in the vicinity (Newman 2018b).



*Plate 25: foundation trenches for the playground equipment in the north-west woods.*

- 8.75 Work in the north-west woods began in June 2019. The pathways were cleared of undergrowth and leaf-litter by a small mechanical excavator, fitted with a 1m toothless bucket, and the excavations were then edged with timber to retain the pathway material. The pathways had to be level to ensure accessibility, and therefore the ground was often raised slightly above the woodland floor resulting in little to no archaeological impact. No archaeological features or deposits were encountered.
- 8.76 The foundation trenches for the play equipment followed the specific footprint of each structure (Fig. 2). These were generally 0.5m-square postholes at a depth of 0.5–0.6m and they were partially excavated by machine using a 0.3m toothless bucket and then aligned and squared by hand. The more complex structures required the excavation of slot trenches 0.5m wide and 0.5m deep. These were machine-excavated through a thick layer of coarse sandy-silt and loam (61). Beneath this, a mid-brown sandy clay subsoil was visible in the base of a few of the trenches. Excavation stopped at the required

impact level (0.5–0.6m) without reaching the underlying natural substrata (Plate 25). No archaeological features or deposits were encountered.

***Monitoring during installation of a new fence line***

- 8.77 In July 2019, 19 small test pits were excavated during the replacement of the fence round the flower garden to the west of the Hall, dividing the formal gardens from the setting of the Central Hall. Excavation in this area in 2014, conducted during the installation of a lightning conductor, identified and recorded masonry remains quite close to the surface. These were interpreted as possible evidence of a pre-1718 manorial complex (Newman pers. comm.). The replacement fenceline lay only a short distance west of these remains and so a watching brief was requested during installation.
- 8.78 During the 2019 monitoring 0.3–0.4m of stratigraphy was observed in each of the test pits, which usually terminated on stone. The small size and nature of the pits limited detailed archaeological interpretation, and especially determination as to whether the basal stone was natural bedrock or masonry in each of the relevant cases. Where the stone was closer to the surface, it seems likely to have been masonry, but in all cases the stone was left as far as possible undamaged and *in situ*. All the stratification encountered appeared to be anthropogenic in origin or at least disturbed.
- 8.79 No finds were recovered from the watching brief.

**9.0 THE FINDS**

- 9.1 This section contains summaries of the specialist finds reports. The full reports are in Appendices B–D.

**Clay pipe, pottery and glass (Appendix B)**

- 9.2 Five fragments (17g) of clay pipe, 99 sherds (737.5g) of pottery and 57 fragments (4290g) of glass and glass waste were recovered during the monitoring and evaluation works.
- 9.3 The clay pipe assemblage consisted exclusively of stem fragments dated to the 17th–18th centuries, representing a maximum of four individual pipes. None of the pieces had decoration or stamp marks.
- 9.4 The pottery assemblage included three residual and abraded sherds of Roman pottery from a maximum of two coarse ware vessels. Due to the fragmentary nature of the material, the vessel forms and a more precise date could not be determined. The three

sherds of medieval pottery, in buff gritty ware and reduced ware, derived from three separate vessels dated to between the 12th and 15th centuries and they were probably produced within the region.

- 9.5 A total of 93 sherds (from a maximum of 77 separate vessels) dated to between the 18th and 20th centuries were recovered. The pottery was all British in origin and mostly produced within the region. The wares were typical of the period and included utilitarian and table wares in forms such as plates, platters, cups and saucers, bottles, bowls, dishes, jars and a possible ashtray. Decoration included yellow, brown and black glazes and slips, common transfer-printed patterns such as Willow pattern, romantic scenes, floral borders as well as other blue and green foliate designs, and hand-painted floral patterns.
- 9.6 The glass assemblage included one fragment of 20th-century window glass. A total of 22 sherds of vessel glass came from up to 11 individual vessels dating from the 18th to 20th centuries. The assemblage consisted of British material and all of the vessels were beverage containers such as beer, wine and water bottles. One bottle had been manufactured in Sunderland while others probably came from The Royal Hartley Bottleworks in Seaton Sluice. All the probable beer/wine bottles were dark green or brown in colour. Four fragments of aqua-marine glass probably came from two Codd-neck bottles, used to hold carbonated product.
- 9.7 A total of 34 fragments of glass waste was recovered from the site, dated to the late 18th to 20th centuries. This material consisted of wasters, slag, trails and other possible casting waste from glass-working processes. Similar material from the vicinity of the Brewhouse was suggested to have been brought from the nearby Seaton Sluice bottleworks (NAA 2020a).

#### **The small finds (Appendix C)**

- 9.8 Only three objects in this category were recovered during this stage of the works. There was a nail and a probable nail, and a penny of Elizabeth II, minted in 1994. The latter was recovered from masonry 67 in the north-west bastion.

#### **Building materials (Appendix D)**

- 9.9 A total of 14 fragments (8740g) of brick, possible brick, horseshoe drain, and pantile were recovered, together with two fragments (366g) of decorative architectural ceramics and 10 fragments (211g) of unidentified material.



9.10 All the brick and possible brick fragments (eight in total) were recovered from context **93**, an area of modern dumping in the south-east woods. All were hand-made and probably dated to between the late-Medieval and late-18th century.

9.11 Two glazed fragments of decorative architectural ceramic were recovered from the topsoil and context **80** in the south-east wood. One featured a glazed avocado-green fluted-face, with an opposite face of dull white; the other fragment was glazed dark brown to black. Neither was complete enough to suggest original form or function.

## 10.0 DISCUSSION

### Early activity

10.1 Although the majority of the evidence recovered during the archaeological investigations dated to the 18th to 20th centuries, a small number of residual finds indicate possibly earlier activity in the vicinity. The Roman pottery sherds in particular were of interest. There is widespread evidence for intensive Romano-British occupation of the Northumberland coastal plain in the form of farmsteads and field systems (e.g. Hodgson *et al.* 2012), and several have been suggested within the landscape surrounding Seaton Delaval Hall (see paras. 3.1 and 3.2). However, finds of Roman pottery at such sites are relatively sparse and the discovery of three sherds in layer **73** in TT3 at Seaton Delaval Hall strongly hints at the presence of another contemporary settlement somewhere in the area.

10.2 Significantly, the probable buried soil layer **73** corresponded to similar deposits observed overlying the natural clay at other locations nearby, such as layer **70** in TT1 and layer **154/156** found during excavation for the principal visitor access pathway, and slightly further north as contexts **113** and **115** in the vicinity of the Brewhouse (NAA 2020a). This suggests that early archaeological remains in the area could be preserved beneath a build-up of later deposits. It is therefore conceivable that some of the undated features recorded during the recent works could relate to Romano-British occupation.

10.3 The scattered assemblage of medieval pottery augments the group of similar material found to the immediate north in the area of the Brewhouse (NAA 2020a).

### The bastions and ha-ha wall

10.4 Work within the interior of the north-east bastion, later supported by observations in the south-east and north-west bastion, demonstrated these were constructed as free-

standing raised structures, subsequently backfilled with soil. Two of the bastions featured a central statue plinth, roughly 1m square, standing on a deeply bedded foundation block that extending down into undisturbed natural substrate. Around the statue plinth, the interior of the north-east bastion had been backfilled in stages using redeposited clay and capped with a layer of topsoil to provide a grassed surface. Excavations to investigate the absence of a statue in the south-east bastion identified evidence of disturbed ground probably associated with the removal of the plinth, apparently confirming each of the four bastions had previously sported a figurine.

- 10.5 The placement of the bastions at the corners of the ha-ha provided different views and vistas across the estate, each presided over by the statue of a deity or hero of classical myth. Reconstruction of the north-west to south-east path through the south-east woods revealed how the turfing of the interior of the bastions fed into the vista line, giving it an unexpected impression of extension. Map sources suggest that the views over the ha-has were curtailed by tree canopies from external avenues, leaving the bastions as points of revelation of the surrounding countryside once reached along the internal walks (Newman pers. comm.).
- 10.6 On the eastern side of the enclosure, the ha-ha may have followed the line of an earlier, but undated, ditched boundary represented by cuts **33** and **151**. While conditions undoubtedly varied around the perimeter of the ha-ha, it was clear that adjacent to the north-east bastion a change in height had been achieved by manually lowering the ground surface outside (east of) the Pleasure Ground enclosure. This involved the removal of a build-up of colluvium that had probably eroded from ridge-and-furrow cultivation up-slope to the south. The foundations for the ha-ha were subsequently terraced into the underlying natural clay and the resulting cut was used to form for the ha-ha ditch.
- 10.7 The ha-ha wall, which was effectively a revetment wall, was built of fairly uniformly shaped and dressed stone small ashlar blocks, set with roughly coursed sandstone blocks and mortared rubble behind. However, construction varied slightly along the course of the structure. At the centre of the east ha-ha, for example, excavation showed that the area behind the revetment wall had been in-filled with soil and rubble; while near to the north-east bastion, the space to the rear had been packed with redeposited clay, possibly to dispose of unwanted material generated by excavation of the ditch cut.

10.8 Investigation of gateway **23**, to the south of the north-east bastion, showed this to have been a later addition. The structure clearly abutted the earlier bastion wall, overlying its foundations. The gateway steps were also constructed at the same time, providing access from the 'raised' platform of the Pleasure Grounds to the walled garden. That these cut through the backfill behind the ha-ha wall again demonstrated that the gateway post-dated the wall. As such, gateway **23** almost certainly dates to the construction of the walled garden in the mid- to late 18th century.

#### **Other landscaping or functional features**

10.9 The works identified evidence for two substantial former paths or trackways. The compacted stone surfaces identified in TP12, TP13, TP17, MP3 and MP4 have a broadly linear distribution and presumably represent an undated former trackway running south-east from the Hall. The existing nearby path runs towards the south-east bastion whereas the earlier track appeared to run slightly south of the modern alignment, to a point just west of the bastion. This suggests it could pre-date construction of the southern ha-ha wall and ditch which crosses the track's projected alignment.

10.10 Alternatively, it is possible that it is aligned on the draw-bridge west of the bastion, which provided access to the sea walk and southern walled garden, both constructed in the late 18th to early 19th centuries (though the documentary evidence does not support such an option very strongly). Or it is possibly an even earlier route alignment that was utilised when the draw-bridge was inserted. The premise that it is an earlier rather than a later route is supported by the absence of the track from the 1781 estate plan or any subsequent mapping (Figs 3–6), and its considerable depth below the modern ground surface. However, given that its use would have conflicted with the south-east vista being open, it is possible that it is an early 19th-century feature (prior to the publication of OS maps) installed after the vista fell into decline, but when access beyond the south-west corner of the Pleasure Grounds was still required.

10.11 The second path or trackway was identified during construction of the principal visitor route. It lay immediately below the modern topsoil, and hence post-dated medieval agricultural use of the area. The well-constructed path, with a camber, imported surfacing and possible kerbing, was demonstrably used by wheeled vehicles, although the shallowness of the wheel-ruts and the fine gravel surface show that it was not intended for heavy traffic. The path can probably be equated with one depicted on the 1808 estate plan (Fig. 4) which followed a similar route down the slope towards a point

well to the south of the north-east bastion, before turning north-east towards the bastion and gateway 23 through the ha-ha to the walled garden.

- 10.12 Several other features were noted during the works, although the limited nature of the individual investigations meant that they could not in general be interpreted or dated. Some of these, including the small gullies identified in TP4 and TP38, may relate to drainage. While broadly undatable, these seem most likely to relate to 19th- or 20th-century management of the site, when waterlogging seems to have become a significant issue.

#### **Remains of the mansion and its predecessors**

- 10.13 In general, the works reported here did not expose – as they were designed not to – significant remains relating to lost components of the mansion complex. Exposure of parts of the promenade walk around the lost wing were an unexpected bonus, serving to underscore the great archaeological potential of this area.
- 10.14 The fencepost holes to the west of the Central Hall also illuminated the potential for archaeological remains relating to the pre-Vanbrugh complex, even close to the present ground surface in this vicinity.

### **11.0 CONCLUSION**

- 11.1 The individual components of the works described in this report were each relatively limited in scope. Nevertheless, they provide a significant opportunity (together with adjacent works carried out around the Brewhouse and walled garden; NAA 2020a) to archaeologically evaluate an extensive area of the immediate hinterland of Seaton Delaval Hall. Important structural details have been recorded relating to the construction of the bastions and ha-ha; two of the key surviving features of the 18th-century landscape scheme. This information has facilitated a greater understanding of the original form and subsequent development of this internationally significant property. In addition, artefacts and possible features were identified that could indicate earlier activity across the site.
- 11.2 Work at the north-east bastion showed that the central statue-plinth was an integral component of the original design and constructed at the same time as the surrounding bastion walls. Where evidence survives, the ha-ha walls clearly abut the bastions, and hence appeared to have been constructed later, although almost certainly formed part of the same design scheme. In contrast, the gateway leading into the walled garden, to

the south of the north-east bastion, was clearly inserted later and shows how the scheme was modified (providing access to the walled garden) while preserving the overall integrity of the architectural concept.

- 11.3 The discovery of the buried paths or trackways, as well as a number of other features, has demonstrated again the archaeological potential of the grounds around the Hall. This includes not just remains of earlier garden features but also the possible survival of features and deposits associated with the medieval agricultural landscape and pre-medieval occupation of the site. There will be, therefore, great value in future, careful, archaeological conservation management of the site. For the present, one last significant result of the campaign of work reported here is relief and confidence that the carefully planned and measured works of the *Curtain Rises* project did not significantly impact or diminish Seaton Delaval Hall's archaeological resources under its gardened landscapes.

## 12.0 ARCHIVE DEPOSITION

- 12.1 The full archive from the archaeological investigations, including paperwork, drawings, photographs, digital data and the finds assemblage, is to be deposited with the National Trust at Seaton Delaval Hall. Deposition will be in accordance with written guidelines on archive standards and procedures (ClfA 2014c). Copies of the digital data will be archived with the Archaeological Data Service (ADS).

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**Maps and plans:**

Northumberland Record Office (NRO) 740/Box 14 Seaton Delaval Hall 1781 estate map

National Trust Item 1277212 John Dobson's survey of the hall c.1816

Ordnance Survey First Edition six-inch map (1860)

Ordnance Survey Second Edition 25-inch map (1897)

APPENDIX A  
CONTEXT CATALOGUE

Context	Archaeological Work Package	Description	Type	Area	Notes
22	AWP 4	Bastion wall	Masonry	SE Bastion NW Trench	covers all 3 bastions
23	AWP 4	gateway	Masonry	SE Bastion NW Trench	butts against 22
24	AWP 4	statue plinth	Masonry	SE Bastion NW Trench	centre of 22
25	AWP 4	steps	Masonry	SE Bastion NW Trench	later addition to 22
26	AWP 4	topsoil in 22	dep	SE Bastion NW Trench	infill of 22
27	AWP 4	earth capping under 26	dep	SE Bastion NW Trench	infill of 22
28	AWP 4	crushed sandstone	dep	SE Bastion NW Trench	infill of 22
29	AWP 4	clay and s/stone infill	dep	SE Bastion NW Trench	primary infill of 22
30	AWP 4	natural	geology	SE Bastion NW Trench	
31	AWP 4	stone foundations	Masonry	SE Bastion NW Trench	part of steps 25
33	AWP 4	ditch behind ha-ha	cut	ha-ha	east ha-ha
34	AWP 4	ha-ha wall	Masonry	ha-ha	ha-ha wall
35	AWP 4	backfill to wall	rubble	ha-ha	Infill
54	AWP 8	topsoil of woods	dep	Landscaping	
55	AWP 8	hardcore	path	Landscaping SE woods	trackway in woods
60	AWP 8	subsoil	Natural	Landscaping SE woods	natural subsoil in woods
67	AWP 6	NW Bastion	Masonry	NW Bastion	same as NE Bastion
68	AWP 8	topsoil	dep	TT1	topsoil in play area trenches
69	AWP 8	hardcore	path	TT1	allee trackway
70	AWP 8	clay and stones	dep	TT1	
71	AWP 8	furrow	cut	TT1	possible N-S furrow
72	AWP 8	furrow	cut	TT2	possible N-S furrow
73	AWP 8	sandy silt	dep	TT3	
74	AWP 8	linear feature	cut	TT3	slight N-S earthwork
75	AWP 8	furrow	cur	TT3	possible N-S furrow

80	AWP 8	topsoil	dep	TP4	
81	AWP 8	subsoil	dep	TP4	
82	AWP 8	Natural clay	Natural	TP4	
83	AWP 8	organic dep	dep	TP4	
84	AWP 8	linear feature	cut	TP4	possibly same earthwork feature in TT3
85	AWP 8	fill of 84	fill	TP4	
86	AWP 8	cobbles	trackway	TP12-13	trackway in woods
87	AWP 8	rubble	dep	TP13	modern dump
88	AWP 8	rubble	dep	TP21	modern dump
89	AWP 8	rubble	dep	TP24	modern dump
90	AWP 8	mixed clay	dep	TP24	ground make-up
91	AWP 8	buried soil	dep	TP24	buried soil horizon
92	AWP 8	ash and gravel	dep	TP24	modern dumping
93	AWP 8	brick and mortar	dep	TP23	Modern dumping
94	AWP 8	ash and gravel	dep	TP27	Modern dumping
95	AWP 8	natural silt	dep	TP34	silting
96	AWP 8	coal and clay	dep	TP34	clay dumping
97	AWP 8	glacial clay	Natural	TP34	geology
106	AWP 8	tree planting	dep	south of Brewhouse	emergency finds recovery from spoil
107	AWP 8	tree planting	dep	woodland	emergency finds recovery from spoil
146	AWP 4 & 8	ha-ha wall	Masonry	path landscaping	SE ha-ha next to gateway and steps
147	AWP 4 & 8	topsoil	dep	path landscaping	parkland soil and turf
148	AWP 4 & 8	foundation cut	cut	path landscaping	cut for ha-ha and steps
149	AWP 8	secondary fill of 148	dep	path landscaping	weathering behind ha-ha
150	AWP 8	primary fill of 148	fill	path landscaping	construction backfill

151	AWP 8	linear cut feature	cut	path landscaping	possible early landscape feature / property boundary
152	AWP 8	fill of 151	fill	Ha-ha	infill of ditch
153	AWP 8	redeposited clay	dep	Ha-ha	possible ground levelling
154	AWP 8	buried soil	dep	Ha-ha	cut by 151
155	AWP 8	poss natural	nat	Ha-ha	clay and stones
156	AWP 8	buried soil	dep	Ha-ha	same as 154
157	AWP 8	topsoil	dep	path landscaping	same as 147
158	AWP 8	path	Path	path landscaping	SW-NE Allee
159	AWP 8	deposit	dep	path landscaping	soil
160	AWP 8	deposit	dep	path landscaping	mortary soil
161	AWP 8	poss cut in 159/160	cut	path landscaping	poss cut in 159/160
162	AWP 8	deposit	dep	path landscaping	cindery soil

APPENDIX B  
CLAY PIPE, POTTERY AND GLASS ASSESSMENT

*Charlotte Britton*

INTRODUCTION

This report discusses the clay pipe, glass and pottery recovered from the 2018–20 archaeological excavations in the Pleasure Grounds at Seaton Delaval Hall, Northumberland (NZ 32368 76541). Five fragments (17g) of clay pipe and 57 fragments (4290g) of glass including glass waste were recovered, all dating to the post-medieval period. In addition, 99 fragments (737.5g) of pottery were recovered that dated to the Roman, medieval and post-medieval periods (Table B1).

*Table B1: material by context, with count and weight.*

material	clay pipe		glass		pottery		Total count	Total weight (g)
	count	weight (g)	count	weight (g)	count	weight (g)		
0			20	3829.7			20	3829.7
27	2	8	2	56	8	102.8	12	166.8
67	1	4	3	58.5	4	72.7	8	135.2
68			11	141.8	66	383	77	524.8
69			3	8.1	7	66.7	10	74.8
73					5	14.1	5	14.1
80			8	42.6			8	42.6
81			3	86	2	58.7	5	144.7
87	1	3	6	49.7	2	12.4	9	65.1
106	1	2	1	17.6	5	27.1	7	46.7
<b>Total</b>	<b>5</b>	<b>17</b>	<b>57</b>	<b>4290</b>	<b>99</b>	<b>737.5</b>	<b>161</b>	<b>5044.5</b>

METHOD

All the assessment work undertaken as part of this report was carried out between 16th and 30th July 2020. The materials were assessed by eye and in line with the relevant standards and guidelines. In all cases, the material was organised by stratified deposit (context) and quantified by count and weight.

The clay pipe was examined in accordance with Higgins (2017). The glass, including glass waste, was recorded in line with both the national finds standards and find type specific guidance's (ClfA 2020; Historic England 2018). The pottery was examined in accordance with Barclay *et al.* (2016). Forms, wares, and date were identified where possible, and vessel type and decoration were documented where practicable.

OUTLINE OF THE ASSEMBLAGE

**The clay pipe**

The clay pipe assemblage dated to the post-medieval period (17th–18th century) and consisted exclusively of stem fragments (Table B2). It represented a maximum four individual pipes and

those present were in good condition. The pipes were British in origin and probably produced within the local region. All the fragments had a fabric made from ball clay and, when present, any burnishing ranged from poor to good in condition. Although fragmentary, all the stems were straight, and the bore-hole diameters ranged from 5/64 inch to 8/64 inch, indicating the assemblage dated to 17th–18th century (Higgins 2017, 8–9). Two fragments, probably belonging to a single pipe, displayed tapering from 10mm in diameter at the bowl end, to 7mm at the mouthpiece end, dating it firmly to 17th to early 18th century (Higgins 2017, 8). The assemblage was devoid of decoration or stamp marks.

**Table B2: clay pipe by context, with count and weight.**

Clay pipe part	Stem	
Context	count	weight (g)
27	2	8
67	1	4
87	1	3
106	1	2
<b>Total</b>	<b>5</b>	<b>17</b>

### The glass

The glass assemblage dated to the post-medieval (18th–20th century) to modern periods, and included vessel and window glass, and was in good condition. It also included glass waste that probably originated from glassmaking processes taking place in the vicinity of the site, during the post-medieval period. The assemblage represented a maximum of 11 vessels, one window and 34 fragments of waste in the form of wasters, slag, trails and additional casting waste (Table B3).

**Table B3: glass type by context, with count and weight.**

Object	vessel		waste		window?		Total count	Total weight (g)
Context	count	weight (g)	count	weight (g)	count	weight (g)		
0	4	406.1	16	3423.6			20	3829.7
27	2	56					2	56
67			3	58.5			3	58.5
68	5	107.9	6	33.9			11	141.8
69			3	8.1			3	8.1
80	3	11.9	5	30.7			8	42.6
81	3	86					3	86
87	5	48.7			1	1	6	49.7
106			1	17.6			1	17.6
<b>Total</b>	<b>22</b>	<b>716.6</b>	<b>34</b>	<b>3572.4</b>	<b>1</b>	<b>1</b>	<b>57</b>	<b>4290</b>

### The window glass

One sherd (1g) of window glass dating to 20th century to modern period was recovered from rubble layer **87**. The sherd was transparent and probably made from soda-lime-silica plate glass, common to the period (Historic England 2018, 50).

### *The vessel glass*

A total of 22 sherds (176.6g) of vessel glass was recovered dating to the 18th–20th century to modern periods. The assemblage represented a maximum of 11 individual vessels and the glass ranged from poor to very good in condition. Most of the assemblage was British in origin and probably produced within the local region, including one bottle that was produced in Sunderland. Some examples were also probably manufactured at bottle works located near the site (see below). Vessel types solely encompassed beverage containers including beer, wine and water bottles.

All the probable beer/wine bottles were dark green or brown in colour, transparent and where visible displayed seams indicating they were machine made. Their appearance indicated that the vessels were all made from HLLA (high-lime low-alkali) glass, typical to the post-medieval period (Historic England 2018, 45, 48 and 65). The two base fragments present were heavily delaminated and displayed a high punt, and a complete green rim fragment had an applied lip, dating both these, the larger vessels, to 18th–20th century. The lighter green and light brown body fragments were probably from smaller bottles and may have dated later than the others, firmly into the 20th century, being used solely for storing beer.

Due to the fragmentary nature of the assemblage exact bottle sizes were mostly impossible to ascertain. However, four fragments (401.6g) of a single brown, transparent, machine-made bottle were present that displayed an applied lip and collar were recovered from an unstratified layer. It had 'AYRES QUAY BOTTLE CO. MAKERS. SUNDERLAND' embossed on the sidewall with 'NORTH SHIELDS' on the opposite side. This indicated that the bottle was made by the Ayre's Quay Bottle Works located in Sunderland between c.1723 and 1942 (The Sunderland Site) and probably held a product made in North Shields. The form and glass type suggested that the bottle was made in the 19th–20th centuries. It is probable that the bottle held beer.

Four fragments (94.8g) of transparent aqua-marine glass belonging to two separate bottles were also recovered. Dating to 19th–20th centuries, both were from machine-made bottles, probably made from HLLA glass, typical to the post-medieval period (Historic England 2018, 45, 48 and 65). One displayed a shoulder that was pinched, and the other had a rim and neck with a small, applied collar indicating that they probably originated from two Codd-neck bottles, used to hold water or a similar carbonated product and that they may have had rubber seal lids.

### *The glass waste*

A total of 34 fragments (3572.4g) of glass waste was recovered from the site dating to the late 18th–20th century. Mostly recovered from unstratified layers, it consisted of wasters, slag, trails and other possible casting waste that probably came from glass-working processes taking place near the site, during the period (Table B4).

Fourteen waster fragments (48g) were recovered from unstratified layers, hardcore **69** and topsoil layer **106**, that derived from six separate vessels. Wasters are failed products that have been subject to firing failures displaying faults, and so cannot be used (Historic England 2018, 66). The examples recovered were very fragmentary, usually misshapen, dark green, light to dark blue or cream in colour, and usually opaque or translucent. The discolouration and alterations in shape probably derived from intense heat, and the colours identified indicated that the wasters consisted of altered HLLA glass, the same material that some of the earlier beer/wine bottles recovered were probably made from, dating the wasters to late 18th–20th century (Historic England 2018, 29).

**Table B4: glass waste type by context, with count and weight.**

Waste type	Slag		Trail/Pull		Waste		Waster		Waster?		Total count	Total weight (g)
	context	count	weight (g)	count	weight (g)	count	weight (g)	count	weight (g)	count		
0	10	3394.6					4	24.7	2	4.3	16	3423.6
67			1	17.9	2	40.6					3	58.5
68			3	17.5			3	16.4			6	33.9
69			2	7.6			1	0.5			3	8.1
80			2	17.2			3	13.5			5	30.7
106							1	17.6			1	17.6
<b>Total</b>	<b>10</b>	<b>3394.6</b>	<b>8</b>	<b>60.2</b>	<b>2</b>	<b>40.6</b>	<b>12</b>	<b>72.7</b>	<b>2</b>	<b>4.3</b>	<b>34</b>	<b>3572.4</b>

Glass slag was recovered exclusively from unstratified layers and consisted of opaque fragments, that were often vitrified with bubbly surfaces and had metal inclusions. The colours present (opaque- black, dark green, light to dark blue and cream) indicated these fragments also represented overfired HLLA glass (Historic England 2018, 29). One large fragment (2611.1g) recovered displayed areas with all these colours, was highly vitrified, had abundant metallic inclusions and contained waster fragments adhered to some areas.

Eight fragments (60.2g) of glass trails were also recovered there were dark green in colour, with two examples showing opaque blue and cream areas indicating they were also HLLA glass that had been discoloured by extreme heat (Historic England 2018, 29). One fragment (17.9g) also had mortar adhered to one side.

Finally, additional waste in the form of two glass lumps (40.6g) were recovered from NW Bastion layer 67, that were slightly bubbly and vitrified, opaque and dark blue in colour. They were misshapen and probably represented additional waste from the glass making processes taking place near the site.

### The pottery

The pottery assemblage dated to the Roman, medieval (12th–15th centuries) and post-medieval (18th–20th centuries) periods and was classified as domestic ware. The assemblage represented a maximum of 82 individual vessels and the material recovered ranged from poor to very good in condition (Tables B5 and B6).

**Table B5: pottery by context, with count and weight.**

Period	Roman		Medieval		Post-medieval		Total count	Total weight (g)
	context	count	weight (g)	count	weight (g)	count		
27					8	102.8	8	102.8
67					4	72.7	4	72.7
68					66	383	66	383
69			2	18.4	5	48.3	7	66.7
73	3	5.3	1	6.2	1	2.6	5	14.1
81					2	58.7	2	58.7
87					2	12.4	2	12.4
106					5	27.1	5	27.1
<b>Total</b>	<b>3</b>	<b>5.3</b>	<b>3</b>	<b>24.6</b>	<b>93</b>	<b>707.6</b>	<b>99</b>	<b>737.5</b>



*Table B6: pottery by context, with wares, period, count and weight.*

Context		27		67		68		69	
Ware	Period	count	weight (g)	count	weight (g)	count	weight (g)	count	weight (g)
Blackware	18th–19th century			1	52.7				
Buff gritty ware	12th–14th century								
Earthenware – Red	18th–19th century					1	20.8		
Earthenware – White	18th–20th century	2	33.2			3	29.1		
Greyware	Roman								
Oxidised ware	Roman?								
Reduced ware	12th–15th century?							2	18.4
Slipware	18th century							5	48.3
Slipware?	18th century?								
Stoneware	18th–20th century					5	40.1		
Transfer-printed ware	19th–20th century	5	64.9	1	10.7	16	113.8		
Whiteware	19th–20th century	1	4.7	2	9.3	37	121.9		
Whiteware – Painted	19th–20th century					2	11.8		
Yellow glazed earthenware	18th–19th century					2	45.5		
<b>Total</b>		<b>8</b>	<b>102.8</b>	<b>4</b>	<b>72.7</b>	<b>66</b>	<b>383</b>	<b>7</b>	<b>66.7</b>

Table B6: pottery by context, with wares, period, count and weight (continued).

Context		73		81		87		106	
Ware	Period	count	weight (g)	count	weight (g)	count	weight (g)	count	weight (g)
Blackware	18th–19th century								
Buff gritty ware	12th–14th century	1	6.2						
Earthenware – Red	18th–19th century								
Earthenware – White	18th–20th century								
Greyware	Roman	1	3.2						
Oxidised ware	Roman?	2	2.1						
Reduced ware	12th–15th century?								
Slipware	18th century								
Slipware?	18th century?	1	2.6						
Stoneware	18th–20th century			2	58.7			1	9.8
Transfer-printed ware	19th–20th century					2	12.4	4	17.3
Whiteware	19th–20th century								
Whiteware – Painted	19th–20th century								
Yellow glazed earthenware	18th–19th century								
<b>Total</b>		<b>5</b>	<b>14.1</b>	<b>2</b>	<b>58.7</b>	<b>2</b>	<b>12.4</b>	<b>5</b>	<b>27.1</b>

### *The Roman pottery*

Three sherds (5.3g) of Roman pottery were recovered from sandy silt layer **73**. They represented a maximum of two separate coarse ware vessels and the material was in poor condition. The wares identified were greyware and an oxidised ware there were typical of the period and area, having probably been produced locally. Grey wares, for example, were cheap and widespread examples of pottery during the Roman period, that were often made and used locally (Laing 2014, 58). Due to the fragmentary and abraded nature of the material, forms could not be documented.

### *The medieval pottery*

A total of three sherds (24.6g) of medieval pottery was recovered that dated to between the 12th and 15th centuries. The assemblage represented a maximum of three separate vessels and the material recovered was in good to very good condition. The material present was British in origin and produced within the local region. The wares identified were highly typical of the period and area, and they solely represented hollow wares.

The wares present included buff gritty ware and reduced ware. The former was recovered from sandy silt layer **73** and had a buff gritty fabric with quartz and/or mica and possible ironstone inclusions. Dating to 12th–14th century, the fabric was similar to others found in the Durham area, dating to 13th–14th century (McCarthy and Brooks 1988, 225), and so may have originated from the same production centres or were part of the same local pottery tradition. The fragments of reduced ware recovered from hardcore layer **69** belonged to a single hollow ware vessel and had a hard-gritty fabric with a light grey exterior and dark grey interior. Both sherds also displayed remnants of an external brown glaze and dated to between the 12th and 15th centuries.

### *The post-medieval pottery*

A total of 93 sherds (707.6g) of post-medieval pottery was recovered that dated to between the 18th and 20th centuries. The assemblage represented a maximum of 77 separate vessels and the material recovered ranged from good to very good in condition. All the pottery present was British in origin, and mostly produced within the local region. The wares identified were highly typical of the period and encompassed utilitarian and table wares. The forms identified were typical of the period and wares, including flatwares such as plates, platters, saucers and a possible ashtray and hollow wares such as bottles, bowls, cups, dishes and jars.

The decorations and surface treatments identified in the assemblage were typical of the periods and wares, and included yellow, brown and black glazes and slips, and common transfer-printed patterns such as Willow pattern, romantic scenes, floral borders as well as other blue and green foliate designs. Hand-painted floral patterns were also documented as well as common stoneware designs such as two-tone grey and brown- and brown salt-glazes.

Of note was a body sherd (32.9g) of a stoneware bottle recovered from subsoil **81** that dated to 19th–20th century. It displayed a black transfer printed label on the sidewall that read 'establish..863...shields' alongside a prancing lion inside a circle. This indicated that it was a fragment of an A.N Dodds wine and spirit merchant bottle dating to the late 19th century. The bottle was probably produced in Glasgow but was used to hold beer produced in the North and South Shields and Tynemouth area (Collectors Weekly 2016).

Also of note was a sherd (10.7g) recovered from NW Bastion layer **67** that was part of a possible ashtray dating to the 20th century. The sherd was dark blue, displayed a black '...KY' on the rim, and had a characteristic edge indentation.

Finally, a single fragment (24g) of transfer-printed ware recovered from earth capping **27** displayed a pattern that did not line up properly, and five sherds (48.3g) belonging to a single slipware plate recovered from hardcore **69**, displayed possible staining or sooting, indicating that it had been fired to a very high temperature. These examples therefore may have constituted wasters.

## PROVENANCE OF OBJECTS

Most of the assemblage was unprovenanced, recovered from the topsoil or mixed, made-ground deposits. This implied that the assemblages were mainly residual. Five sherds (14.1g) of pottery were recovered from sandy silt layer **73** that ranged from Roman to post-medieval in date also indicating the sherds were not recovered from their primary deposition context, but instead were from a disturbed layer. Some material, however, may have been recovered from their primary deposition context NW Bastion **67**, including a clay pipe stem (4g), three fragments (58.5g) of glass waste and four sherds (72.7g) of post-medieval pottery.

## DISCUSSION

### The clay pipe

Most of the clay pipe was recovered from residual contexts and so had little potential to inform us about the people that inhabited the site during the post-medieval period. Clay pipes were disposable items during the post-medieval period, often used only a few times before they were thrown away and therefore their potential for dating a context is high (Pearce 2015, 286). Accessing this potential relies on being able to date the pipe accurately. This is usually achieved through having complete bowls to compare the typology or through makers' marks; however, these features were not present with the Pleasure Ground assemblage. The bore size and stem size can be a helpful indicator of age and the stems present in this assemblage suggested that the clay pipes recovered dated firmly between the 17th and 18th centuries.

Most of the fragments recovered showed indication of poorly applied burnishing, indicating the pipes were poorly finished, suggesting that most of the pipes were common in style and perhaps cheaper examples at the time (Higgins 2017, 19–20). This may indicate that most of the pipes recovered were used by servants and/or workers on site (possibly including gardeners and grounds people) rather than the Delaval family inhabiting the hall. Nearly all the clay pipe recovered was from residual contexts but did suggest that there were leisure and recreational activities taking place in the bastion and woodland areas during the 17th–18th centuries, possibly originating from workers on site.

### The glass

The glass assemblage dated to the 18th–20th centuries, and modern periods and encompassed vessel and window glass, as well as glassmaking waste. Although a lot of the material was recovered from unstratified contexts it had potential to inform us about both the people inhabiting the site and the workings taking place there during the period.

### ***Window glass***

The window glass sherd recovered from the Pleasure Ground area could tell us very little beyond indicating a building was present in the area during the 20th century to modern period. The fragments probably originated from a building located on site.

### ***Vessel and waste glass***

All the glass vessels recovered were connected to drink storage and consumption, indicating they were related to domestic occupation and/or visitors picnicking during the 18th–20th centuries and modern period. The bottles produced off-site must have come to Seaton Delaval for the purpose of consumption, perhaps by the occupants of the hall or others working and living on the estate. One of the complete bottles recovered indicated that it was made by the Ayre's Quay Bottle Works located in Sunderland and held a product produced in North Shields, perhaps beer. Although Sunderland is situated only c.20 miles south of the site at Seaton Delaval, this shows the small-scale network of interaction that existed between the two north-eastern areas during the 19th–20th century.

Some of the bottle fragments recovered came from beer and carbonated water bottles dating from 19th–20th century and modern periods, and probably originated from workers or visitors on site during this period. However, some of the recovered larger dark green, beer and/or wine bottle fragments, dating a little earlier to the 18th–20th centuries, were possibly produced at the bottle works located at Seaton Sluice located just over one mile away from the hall (Seaton Sluice and Old Hartley Local History Society). Named 'The Royal Hartley Bottleworks', the production centre was established in 1763 by Sir Francis Delaval and was an influential site during the 18th and early 19th centuries, producing over one million bottles a year that were shipped from the local harbour, around the UK and Europe (Seaton Sluice and Old Hartley Local History Society). It was probable that these vessels were transported to the hall, specifically to the Brewhouse located on site, in order to contain products being made here. Many similar examples, for instance, were recovered from the Brewhouse area of the site (NAA 2020a).

In addition, the glass waste recovered from the Pleasure Ground area also clearly originated from glass-making activities taking place at the Sluice. The wasters, slag, trial and associated lumps clearly derived from industrial processes and were made from the same HLLA glass as the finished bottle fragments recovered both here and the Brewhouse area. As a range of waste types were recovered across the site, it is possible that an arrangement between the bottle works and the estate meant that waste could be dumped at Seaton Delaval, either simply as a dump or to be used as a hardcore foundation for buildings on site or trackways (R. Cubitt pers. comm.). It is also possible that the wasters arrived with a batch of finished vessels, being subsequently discarded by the Brewhouse as they were not fit for filling. The assemblage recovered from the bastion and woodland areas was all residual, being recovered from unstratified layers, having also probably been redeposited from the Brewhouse area during landscaping and construction phases. The large slag fragment (2611.1g) recovered from an unstratified layer for instance, may have been used as infill during a new phase of landscaping during the 19th or 20th centuries.

## **The pottery**

### ***The Roman pottery***

The wares present within the Roman assemblage encompassed solely coarse wares and were typical of a Roman settlement in the region. As the material was limited and recovered from a disturbed context, it had very low potential to tell us about the people that inhabited the site

during the period. It is probable that the assemblage was associated with a settlement located in the area such as that identified c.2km east of the hall, at Seaton and/or elsewhere along the surrounding coastal plain. The wares were common to the period and probably produced locally. Although forms could not be identified, the wares were indicative of tablewares made for food preparation indicating that the community the assemblage derived from was probably domestic or had a domestic component (Laing 2014, 58).

### *The medieval pottery*

The wares present within the medieval pottery assemblage encompassed solely utilitarian wares that were highly typical of a domestic medieval settlement in the north east. As the material was limited and recovered from an unstratified and disturbed context, it had very low potential to tell us about the people that inhabited the site during the period. Due to this, its significance to pot studies beyond this site is low. The assemblage dated between the 12th and 15th centuries and suggested that it was derived from a domestic community. It is probable that the assemblage was therefore connected to the medieval settlement known to have existed in the vicinity. The assemblage probably originated from production sites in the immediate or adjacent regions with the buff gritty ware being consistent with material recovered from the Durham area. The decoration in the form of a brown glaze was characteristic of the medieval period although was simple, and so may have derived from a domestic community of simple means.

### *The post-medieval pottery*

The wares and forms present within the post-medieval pottery assemblage encompassed table and utilitarian wares and were also probably associated with a domestic settlement located on or around the site during the 18th–20th centuries, such as the village of Seaton, or the hall. As most of the assemblage was unstratified or residual it had very low potential to tell us about the people that inhabited the site during the post-medieval period, beyond indicating that there was domestic activity in the area. The decorations identified within the assemblage were common to the period indicating that it was more likely serving inhabitants of the estate village, workers and servants rather than the hall, as more elaborate table wares would be expected in the latter. Most of the assemblage probably originated from local production centres apart from the stoneware bottle recovered from subsoil 81 that was probably produced in Glasgow and held a product from the Tyneside area. This implied that, unsurprisingly, the site at Seaton Delaval was tied into national trade network that existed at the time.

The presence of the ashtray fragment in the assemblage indicated that the site was still inhabited by a domestic community during the 20th century, and that this community enjoyed leisure activities, with it probably originating from the local village or workers on site.

Finally, the possible wasters found within the assemblage could infer that a pottery production site was located near the excavated area during the post-medieval period, especially as some possible wasters were also recovered from the Brewhouse area. As they were sparse, however, it may also be probable that they simply arrived with a batch of pottery.

## **Conclusion**

The assemblage described here indicates that there may have been Roman and medieval domestic occupation somewhere in the vicinity of the hall, although the evidence is limited. More concretely, the post-medieval assemblages of clay pipe, glass and pottery indicate that domestic food and drink consumption, leisure activities (smoking) and bottle manufacturing took place on, or was associated with, the site during this period. It is notable that apart from the small

amount of glass and glass waste which might relate to a manufacturing arm of the Delaval family's activities, none of the contents of the hall seem to have made it into the ground surrounding the Pleasure Grounds. Instead, the assemblages seem to have been associated with workers inhabiting the site or visitors visiting it. In addition, the closely dated finds suggested a period of dense activity around the site, between the 17th and 20th centuries. Although intermittent, it is known the hall was occupied during the post-medieval period, and the assemblage reflects this.

## RECOMMENDATIONS

All the clay pipe, glass and pottery recovered dated from 12th–15th century, 17th–20th century and modern period and ranged from poor to very good in condition. The assemblages recovered were highly typical of the period and were recovered mainly from unstratified or disturbed contexts and so no further study is required for any of the material. The entire assemblages, however, should be retained and deposited with the site archive with the National Trust.

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APPENDIX C  
THE SMALL FINDS

*Julie Shoemark*

**INTRODUCTION**

Three artefacts were recovered from the areas investigated in the parks and gardens during the course of archaeological monitoring carried out during groundworks and historic building renovation. One object was a penny of Elizabeth II, one was an iron nail and the third was probably also a nail.

**METHOD**

The finds were assessed by eye on the 20 August and 11 September 2020. X-rays of ferrous objects and copper-alloy objects were examined in order to enable more accurate identification. The assemblage was organised by material, quantified by count and weight and was then assigned a functional group after the method of Crummy (1983). Coins were identified where possible and catalogued using Spink (2006). The assemblage was then considered in terms of its stratigraphic relationship. All datable finds were ascribed a post medieval date and it is likely that those which were not typologically datable were also of post medieval or modern date. Finds are presented by broad period (where dating is possible) and then by functional group.

**OUTLINE OF THE ASSEMBLAGE**

**Coin (one object)**

A penny of Elizabeth II minted in 1994 (Spink 2006, no. 4391) was recovered from masonry **67**, north-west bastion.

**Fasteners and fittings (two objects)**

One iron nail and one probable nail was found in subsoil **81**, Test Pit 4. Both are heavily corroded. One has a square shank with a flat, rounded head. The other has a square shank, but no discernible head.

**PROVENANCE OF OBJECTS**

The penny of Elizabeth II was recovered from masonry **67**, associated with the north-west bastion. The two nails were recovered from subsoil **81**, Test Pit 4 in the south-east woods.

**DISCUSSION**

The penny of Elizabeth II is indicative of relatively recent disturbance of this feature. No other small finds were recovered from the north-west bastion.

The two nails were recovered from subsoil deposit **81** in the south-east woods and must therefore be considered as unstratified. They are of a form common from the Roman period onwards used in carpentry and construction and are not typologically datable.

## RECOMMENDATIONS

No further analysis is recommended.

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## APPENDIX D

### CERAMIC BUILDING MATERIALS

*Chrystal M L Antink*

#### INTRODUCTION

This report discusses the ceramic building materials (CBM) and decorative ceramics recovered from the 2018–20 archaeological excavations in and around the Pleasure Grounds, Seaton Delaval Hall, Northumberland (NZ 32334 76643). A total of 14 fragments (8740g) of CBM (brick, possible brick, horseshoe drain, and pantile) were recovered, as well as two fragments (366g) of decorative architectural ceramics, and 10 fragments (211g) of unidentified material. (Table D1).

#### METHOD

The CBM was examined between 14 and 27 July 2020 following the Minimum Standards for Recovery, Curation, Analysis, and Publication for Ceramic Building Material (Archaeological Ceramic Building Materials Group 2002). Fragments were recorded in a Microsoft Access database following McComish (2012, 122) by count, weight, form, and surviving complete dimensions. Any unusual firing characteristics, stamps, and external effects were noted.

The CBM deemed to be most likely to be datable was selected for recovery by the experienced excavator on site, as retrieving 100% of the more fragmentary material would have proved physically burdensome and not provided data useful here (A. Durkin pers. comm.).

Brick manufacture dates were estimated with comparison to historic measurements provided in Davey (1961), McComish (2015), and the PAYE conservation document 'Dating historic brickwork' using all surviving complete dimensions. As bricks were incomplete, a broader date range has been recorded using the dimensions available.

Those fragments that could not readily be assigned a form ('Unidentified') but were deemed not to be another identifiable material (pottery, for example) have been described as completely as possible in the database.

#### OUTLINE OF THE ASSEMBLAGE

##### Bricks

All the brick and possible brick fragments, (eight total, 6,546g) were recovered from context **93**, an area of modern dumping, in the south-east woods. All were late- to post-medieval circa 1350 to late 1700s AD in manufacture, and all were hand-made, suggesting they were produced before approximately 1900AD. Assignment of manufacture date was guided by measurements of bricks of known date combined with historical records (generally legal statutes). However, the diversity of manufacturers, the variability of differential drying both before and during firing, and differing regional adherence to government directives renders such measurement estimates less than rigid rules. One fragment did not retain any complete dimensions, but its remaining face was marked with rain impressions, suggesting it was hand-made and dried outside.

The quality of the recovered bricks was variable; some were very neatly made, while others were more slapdash; similarly, some were evenly dried and well-fired, while others have significant differential drying cracks and were overfired to nearly blowing.

None of the bricks were frogged or stamped with makers' marks; as these are generally later features (post-1800s AD), this reinforces the manufacture dates suggested above.

### **Decorative architectural ceramic**

Two fragments, totalling 366g, of decorative structural ceramic were recovered from the south-east woods topsoil and context **80**. These have been differentiated from other materials as they are not made of an identifiable CBM fabric, are glazed, but are clearly not wall- or floor-tile, pottery, or sanitary ware. They may have made up elements such as plinths, columns, or other decorative architectural features. One, 77mm thick between the two remaining faces, retains one fluted face glazed avocado-green, while the opposite face is dull white; the other retains no complete dimensions, and is glazed dark brown to black on its surviving face. None is complete enough to definitively recommend an original form or function.

### **Horseshoe drain**

Three fragments of horseshoe drain, two adjoining and one non-adjoining (1905g total) were recovered from the field drain in **TP41** in the south-east woods. Both examples are hand-made but likely post-medieval; further investigation may date them more closely. The profile of each is more V-shaped than U-shaped.

### **Pantile**

Three fragments of pantile (976g) were recovered from bastion context **27**, south-east wood context **87**, and the south-east wood topsoil. While hand-made, all appear to be post-medieval, and the fragment found in context **27** is likely to be post-1850.

### **Unidentified Fragments**

Ten unidentified fragments (211g) were recovered from contexts **80**, **81**, and **87** in the south-east woods. All appear to be made of a CBM fabric (as opposed to tile or pottery), with no remaining dimensions or identifiable features.

## **PROVENANCE OF OBJECTS**

With the exception of the pantile recovered from bastion context **27**, earth capping under topsoil adjacent to wall **22**, the CBM was recovered from areas of top- and subsoil, modern dumping, and a field drain.

## **DISCUSSION**

Negligible information can be contributed by the ceramic building material recovered from the Pleasure Ground area of the Seaton Delaval investigations. That the bricks were of a uniform period in a single dump suggests they came from a distinct act of remodelling of the local buildings; further investigation into historic records may indicate a source.

The thickness of the larger fragment of the decorative architectural ceramics implies a structural feature (rather than purely decorative, as wall tile might be considered), though as it was retrieved from topsoil its source is unknown.

On the contrary, the original location of the horseshoe drain fragments can be clearly determined, as they were retrieved from a field drain. Field drain forms have the potential to be closely dateable; further investigations into local typologies, or historic records of construction on site, may clarify this matter.

## RECOMMENDATIONS

All the recovered building material was of the post-medieval period, ranging from the 14th to the 19th centuries, reinforcing historical accounts of the evolution of the estate. The non-brick materials also provide a brief insight into the decorative tastes of the inhabitants as the property approached the modern period. Ideally, the entire assemblage should be retained and deposited with the site archive at the relative depository.

No elements from this area of the Seaton Delaval investigations are recommended for illustration or display.

## TASK LIST

- Explore possible dating evidence for horseshoe drains.
- Explore likely production location of bricks.

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Table D1: material by context, with count and weight

Context	Brick		Brick?		Decorative architectural ceramic		Horseshoe drain		Pantile		Unidentified		Total Count	Total Weight (g)
	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)	Count	Weight (g)		
27									1	646			1	646
80					1	39					2	16	3	55
81											3	106	3	106
87									1	41	5	89	6	130
93	7	5828	1	718									8	6546
TP41, field drain							3	1905					3	1905
south-east woods topsoil					1	327			1	289			2	616
<b>Total</b>	<b>7</b>	<b>5828</b>	<b>1</b>	<b>718</b>	<b>2</b>	<b>366</b>	<b>3</b>	<b>1905</b>	<b>3</b>	<b>976</b>	<b>10</b>	<b>211</b>	<b>26</b>	<b>10004</b>