

We Dig the Castle!

A Community and Training Excavation in the Outer Bailey of Nottingham Castle. Final Report for the 2015-2018 Excavations.




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Report Number: 037/2019
TPA Project Codes: WDC / WDC2 / WDC3/ WDC4

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Client Name: Nottingham City Council
Document Title: *We Dig the Castle!* A Community and Training Excavation in the Outer Bailey of Nottingham Castle. Final report for the 2015-2018 excavations.
Document Type: Final Report
Issue/Version Number: V4
Grid Reference: SK 56985 39485
Planning Reference: N/A
TPA Site Code: WDC/ WDC2/ WDC3/ WDC4
Report No. 037/2019

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Date	02/04/19
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Date	02/04/19
Status	Final Report

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Summary

- *Between 13/07/15 and 17/08/18 Trent & Peak Archaeology undertook an archaeological investigation in conjunction with the volunteer training scheme within the Outer Bailey of Nottingham Castle.*
- *Located within the walls of the former Royal Castle, the site lies within landscaped gardens to the east of the 'Ducal Palace', arguably one of the finest Palladian mansions of its type in the country.*
- *The specific aims and objectives of this excavation were:*
 1. *To undertake a targeted excavation of the Outer Bailey to allow a better understanding of the archaeological deposits.*
 2. *To engage local volunteers in the archaeology of Nottingham Castle and to build relationships between the people of Nottingham and their cultural heritage.*
 3. *To provide training to community volunteers in the processes and procedures of archaeological excavation and research.*
- *The following specific research questions were identified:*
 4. *To identify the presence and extent of any features associated with Medieval activity within the Outer Bailey and to understand the nature of activity within the Outer Bailey in the Medieval period.*
 5. *To determine the nature/construction of the curtain wall and its relationship to deposits within the Outer Bailey.*
 6. *What is the depth of material overlying the bedrock within the Outer Bailey, and what is the profile of the bedrock?*
 7. *What is the character of the material overlying the bedrock? How much of this material is deliberate landscaping and what does it date to?*
 8. *Has the Outer Bailey been stripped back to bedrock or are relict land surfaces preserved beneath later landscaping material?*
 9. *What environmental remains of the Medieval, post-medieval and pre-20th Century gardens or allotments?*
 10. *Does material evidence survive within relict soils and/or cut into the bedrock, of the Civil War era fortification of the Outer Bailey?*
 11. *Does material evidence of known or unknown Medieval Buildings of the Outer Bailey survive within relict soils or cut into bedrock?*
 12. *Does material evidence of pre-medieval usage of the Castle Rock survive within relict soils or cut into bedrock?*
- *During 2015, an area measuring 15.5m x 5m was excavated. (Area 01) The topsoil was removed by a wheeled excavator with a ditching bucket to a depth of 0.25m.*
- *Under constant archaeological monitoring, successive trainees undertook the process of hand cleaning, excavation and recording of the area.*
- *Excavation revealed that c.1000mm depth of ground in the area had been deposited during the late 19th and early part of the 20th centuries as part of remodelling and landscaping during this period. The soils which formed this made ground contained a broad mix of finds ranging from the Saxo-Norman period through to the 19th century.*
- *Cutting through this material toward the northeast-southwest end of the site was a modern utility trench. At the northern end of the site, a trench housing a lead water pipe, orientated northeast-southwest, and dating to the early 20th century was also identified.*

- Located below the made ground was a concrete footing for a post (possibly a sign post) dating to the 20th century when the site was acquired by the Nottingham Corporation.
- Evidence for 19th century allotments was identified in the form of a cultivated horizon into which regular linear gullies were cut. The gullies are believed to have been associated with the growing of potatoes.
- A series of deep cut features were uncovered c.400mm below the 19th century allotment level. (Area 02). These features were predominately cut into a clean sub stratum. Finds recovered through excavation revealed these features to be no later than 18th century in date.
- During the 2016 season, 5 x 5.5m of the northern end of the trench excavated in 2015 was re-opened, (Area 03) with an extension excavated to the northeast, forming an L-shaped measuring a maximum northwest to southeast width of 8.5m and a maximum southwest to northeast length of 10.7m.
- The remains of a potential allotment structure and floor surface within the northeast of the site were revealed at a depth of 500mm below the ground surface, and provided more evidence for the use of the site as allotments during the 19th Century.
- More features were revealed c.400mm below the 19th century allotment level (Area 04) that seemed to suggest that the site was constantly changing in arrangement and possibly even its use during the 17th and 18th centuries.
- Some of these features looked more structured than others, suggesting that they may be related to a concentric ornamental garden that may have been located in the area during the 17th century.
- A potentially earlier linear was revealed, running north to south across site, but it has not yet been investigated.
- During the 2017 season, intersections were excavated between a number of the potential garden features to established their relationships. 10 regular spaced linear gullies between 0.1m and 0.3m deep are believed to be the earliest of these features, cut by 10 trough shaped features to the southeast end of the site and east to west and northwest to southeast aligned ditches to the northwest end of the site. The latest of these features are two deep ditches [0138] and [0150] that terminate toward the centre of the site. They are of unknown function with steep sides and a flat base. Finds from these features suggest that they all date from the 17th to 19th centuries.
- When grouped together by shape, size and orientation, the sequence of ditches and troughs suggests that this part of the Outer Bailey was subject to numerous changes in use or changes in planting. This would have occurred after the formal garden layout fell out of use. It has been suggested that the troughs or deep ditches could have been used for growing liquorice at some point in the 18th Century, The gullies are orientated down the side of the slope towards the curtain wall, and therefore could have been used for drainage.
- Extensions to the northwest and northeast of the potential allotment structure revealed the structure to be a temporary surface. The presence of carbon arc rods suggests that the surface could have been a hardstanding surface for trucks carrying searchlights, possibly used during the Second World War or during the coronation of King George in 1937. More potential allotment structures were revealed to the far end of one of these extensions, Area 5
- Works during the 2018 season involved the excavation of three test pits near to the main excavations. Test pit 03 was located to the south east of Area 01, whilst test pits 04 and 05 were located 5m and 10m northwest of Area 02. The purpose of these test pits was to reveal the extent of the hardstanding brick surface discovered 2016-2017.
- Remains of the hardstanding surface were recovered from Test pits 03 and 04 at a depth of c. 0.3m and 0.8m below topsoil and subsoil. A steep sided linear feature was recovered in Test Pit 05, and was believed to be a garden feature of a 19th or 20th century date or a robber trench
- This report suggests seven phases to the site:

- *Pre Ducal Palace activity*
- *Formal gardens of the Ducal Palace*
- *Changes in Ducal palace garden use and arrangement*
- *Castle and gardens tenancy*
- *19th Century site abandonment*
- *Allotments of the 19th century*
- *Modern use and landscaping*
- *Future works within the Outer Bailey may include:*
 - *Continuing to establish the age, function and relationships between the linear and oval features exposed and partially excavated in 2017.*
 - *Continuing to determine the extent of brick structural remains [0100] and (0118) to the north and south, establish its function prior to demolition and when this demolition occurred.*
 - *Establishing the relationship between potential brick step [0126] and brick remains [0231], [0238] and [0239] to the northeast of the site.*
 - *Determining the depth of material overlying the bedrock within the Outer Bailey, and establish the profile of the bedrock.*

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1 INTRODUCTION

1.1.1 Between the 13th July 2015 and 17th August 2018, Trent & Peak Archaeology (TPA) undertook an archaeological training excavation in conjunction with commercial works within the Outer Bailey of Nottingham Castle. This training scheme was named *We Dig the Castle!*

1.1.2 Nottingham Castle is a heritage asset of national significance and a Scheduled Ancient Monument (English Heritage SM 1006382). Located within the Outer Bailey of the former Royal castle, the area of excavation consists of landscaped gardens in the shadow of the 'Ducal Palace', arguably the finest Palladian mansion of its type in the country.

1.1.3 The "Nottingham City Council Museums and Galleries Service Strategic Plan 2014–2018" established the context within which the community-based, research excavation of the Outer Bailey was situated:

'The development of visitor infrastructure included within this Strategic Plan, especially the major project for Nottingham Castle, means that the City is ideally placed to achieve the same benefits as other towns and cities with a rich historical heritage. The benefits of such investment in the historic environment are identified in the English Heritage report *The Impact of Historic Environment Regeneration*.

The Castle redevelopment will also achieve wider social benefits in line with and the case studies included in the Social Impacts Heritage Led Regeneration Report published by the Architectural Heritage Fund and partners [Victoria Baths, Manchester and Wilton's Music Hall, London]. These illustrate the benefits of an audited track record of supporting community involvement, engaging with hard to reach groups, building local pride and creating volunteering and job opportunities. These projects are both located in inner city locations and offer transferable learning opportunities for Nottingham and the Nottingham Castle project in particular.'

Nottingham City Council, 2014:31

1.1.4 In the context of the *Nottingham City Council Museums and Galleries Service Strategic Plan*, this project was established as part of an initiative to better understand the Nottingham Castle Scheduled Ancient Monument and to enhance its role as a focus for Cultural Heritage within the City and the "Greater Nottingham" area whilst engaging with and involving the local community.

1.1.5 *We Dig the Castle!* was initially modelled on the *Archaeology Live!* training excavations based in York and managed by the York Archaeological Trust. Set up in 2001, the project was one of the first excavations to be entirely funded by the trainees who take part.

1.1.6 The *Archaeology Live!* training excavations welcome trainees of all ages, backgrounds and experience levels to participate in a course providing the opportunity to learn the full range of excavation techniques, single context recording, finds processing, environmental sampling and buildings recording. The courses also include specialist sessions that teach people how to recognise and date pottery, how to treat and conserve delicate artefacts and how to build and understand stratigraphic matrices. It was hoped that *We Dig the Castle!* would emulate this, offering similar opportunities to trainees within a different setting.

2 SITE TOPOGRAPHY AND GEOLOGY

- 2.1.1 Nottingham Castle centred on Ordnance Grid Reference SK569 394, stands on the edge of an outcrop of Chester Formation sandstone, previous known as the Nottingham Castle Sandstone Formation (Figure 1), that runs in a broad belt from Nottingham City to southern Yorkshire. The outcrop on which the Castle stands is called Castle Rock.
- 2.1.2 The Castle Rock itself stands 40m above the River Trent and its alluvial floodplain to the south. The course of the River Leen once ran close to the base of the cliff on the southern and western sides, though is now culverted beneath 19th and 20th Century roads: Castle Boulevard (A6005) and Peveril Drive.
- 2.1.3 The Castle now stands within a thriving modern city which saw most of the Medieval and early post-Medieval buildings in its immediate environment swept away by development in the 1960s and 1970s.
- 2.1.4 The site of the excavation is situated within the Outer Bailey of the Medieval Castle centred on Ordnance Grid Reference SK 57009 34485 (Figure 1). The area consists of a flat landscaped garden, which begins to slope towards the curtain wall to the east and northeast of the excavation.

3 HISTORICAL BACKGROUND

- 3.1.1 The Castle was originally founded in 1068 on the orders of William the Conqueror. It grew to become one of the most important royal castles outside of London by the Middle Ages because of its strategic position on top of Castle Rock and its central location, which played a central part in controlling movement to and from the north.
- 3.1.2 The Castle was the scene of many historically important events. These include the Castle's recapture for the crown by Richard I following his return from the Third Crusade in 1194. Queen Isabella (the wife of Edward II) and her lover Roger, Earl Mortimer were captured here and overthrown in 1330 by Edward III. Furthermore, it was the seat of government for most of the reign of Richard III who set out from the castle with his army of 12,000 troops to challenge Henry Tudor, and ultimately met his death on Bosworth battlefield in 1485.
- 3.1.3 In 1642, King Charles I raised his Standard at Nottingham Castle, effectively starting the English Civil War as he sought to exert supreme authority of the Crown over Parliament. The Castle was then held successfully throughout the war by a parliamentarian garrison under the command of Colonel Hutchinson, whose wife maintained a diary account of the siege (Drage, 1999).
- 3.1.4 Following the downfall of the monarchy and the execution of King Charles, the Castle was still considered to be a formidable threat. A meeting was held at the castle in 1651, which sealed its fate; it was decreed that the castle should be destroyed to prevent it from being used to mount any future conflict, whether that be by Royalist sympathisers or those supporters of Oliver Cromwell whose motives were considered questionable by Colonel Hutchinson (Lomax, Pers. Comm. 2018).
- 3.1.5 In 1661, after the Restoration of the monarchy, the site was sold to William Cavendish, 1st Duke of Newcastle, who was an exiled Royal commander. Cavendish remodelled the site sweeping away the majority of the remaining Medieval castle to make way for the building of his palace. Sadly for the Duke, he did not survive to see it completed in 1679, and his subsequent heirs left the site empty for much of its remaining history.
- 3.1.6 By the late 18th Century, the Castle had been divided into apartments inhabited by two tenants, Miss Kirby and Mrs Plumb. It was also reported that, prior to their tenancy, some of the rooms had previously been used as a boarding school (Hicklin, 1836).
- 3.1.7 Frances Greaves, one of the last people to rent part of the castle, left in 1829. She had occupied the entire ground floor for an annual payment of £120 (Hicklin, 1836).
- 3.1.8 In 1831, the 4th Duke, Henry Pelham-Clinton, opposed popular cries for parliamentary reform. Following the Duke's reported opposition to the Great Reform Bill in the House of Lords, the castle was burned down by radicals during a night of riots. The first Great Reform Act came into being the following year, the events at Nottingham persuading Parliament, and the House of Lords especially, of the strength of popular feeling for reform.
- 3.1.9 The building lay in a burnt out and ruinous state until the 1870's when the Director of Nottingham Art School, along with Henry Cole, the evangelical first Director of the Victoria & Albert Museum supported the Corporation of Nottingham in their aim to restore the palace as a public museum.
- 3.1.10 On the 3rd of July 1878, the museum was formally opened by the Prince and Princess of Wales as the first municipal art gallery and museum outside of London.

4 THE OUTER BAILEY CONTEXT AND BACKGROUND

- 4.1.1 Whilst there is extensive documentation and archaeological evidence for much of the Castle complex, there is limited information to inform us of what activities, if any, took place within the Outer Bailey and/or if any evidence survived of later events in the Castle's history such as the Civil War and the 'Ducal Palace' ornamental gardens.
- 4.1.2 Drage (1999) states that the Outer and Northern Baileys were formed in the 13th century by subdividing a single large outer enclosure, with the Outer Bailey occupying the lower ground (O.D. 38m./125 feet) north and east of the Middle Bailey. Confusingly the Outer Bailey was referred to as the *Middle Bailey* in the 13th century; it was later referred to as the *Base Court* in the 16th century. The Middle Bailey itself was known as *Castle Yard* in the 17th century.
- 4.1.3 The Outer Bailey is recorded as being captured by Richard I who laid siege in 1194. A barbican may have been constructed at the outer gatehouse in 1212-13 and from 1251 the outer gatehouse was rebuilt in stone. A stone curtain wall then replaced the Outer Bailey earthwork, palisade and interval towers possibly during the 1270's (Kinsley 2012a: Appendix B, 2.1).
- 4.1.4 There is limited evidence for buildings within the Outer Bailey with the exception of a reference to 'a great house and newly built houses' which were noted as being repaired in 1331-3; these buildings were meant to accommodate the Justices in Eyre due to the Hall of Pleas in the town being in a state of disrepair.
- 4.1.5 Figure 2 shows the layout of the Outer Bailey in 1610 as drawn by Speed. Later in 1643, the parliamentarians set up a gun platform battery within the grounds.
- 4.1.6 In the 17th and 18th centuries a small community of servants and their families are recorded as living in the Outer Bailey, although it is unknown at present where their accommodation was located (Drage, 1999:31). Knyff's Prospect of Nottingham from the East dates to 1707 (Figure 3). The Outer Bailey is clearly shown to have rows of plants running east to west down the face of castle hill. However, these gardens are not laid out as formally as the gardens of 'Mr Pierrepont's house' in the foreground.
- 4.1.7 Henry Overton's 1714 *New Map of Nottingham* (Figure 4) shows pictures the Outer Bailey as parkland. John Hicklin's *The History of Nottingham Castle* (1836) mentions that Thomas Pelham-Holles, the 1st Duke of Newcastle (third creation, who became duke in 1715) had planned to create 'the finest gardens in all that part of England' to the west of the Castle. However, the Duke's plans changed and the area remained as parkland.
- 4.1.8 Badder and Peat's map of 1744 shows the Outer Bailey gardens once again divided up into smaller gardens with rows of plants running in varying directions (Figure 5).
- 4.1.9 Hicklin (1836) and Walker (1928b) both state that the Outer Bailey was divided up into private gardens by the late 18th century. Frances Greaves, mentioned previously as a castle tenant from 1825 to 1829, also rented a garden within the 'ancient walls' of the castle for £5 a year (Hicklin, 1836). The transcript from the Leicester Assizes concerning the compensation due to the Duke of Newcastle after the Reform Riots of 1831 also stated that the remainder of the gardens were occupied by tradesmen (Hicklin, 1836). These gardens can be seen in Wild and Smith's 1820 plan of Nottingham (Figure 6), and again in Jackson's map of Nottingham from 1861 (Figure 7).
- 4.1.10 The first edition OS map of 1880 (Figure 8) shows the Outer Bailey site clearly divided up into plots containing small structures, suggesting that the site was used as allotments or town gardens at this time, even though the castle had been opened as

an art gallery and museum two years previous. This is because the Outer Bailey was only acquired by the Nottingham Corporation in the early 20th century, and so the allotment gardens remained in use for at least a further 30 years. The Outer Bailey bandstand was built in the early 20th century (Figure 9 and 10); therefore, the site was probably landscaped at approximately the same time into the gardens that we see today.

5 ARCHAEOLOGICAL BACKGROUND

- 5.1.1 In April 2014, TPA undertook a geophysical survey of the south-eastern part of the Outer Bailey which combined geomagnetic, earth resistance and ground penetrating radar. The results of this geophysical survey identified:
- Possible structures in the shallow sub-surface via earth-resistance survey.
 - Evidence through GPR survey for possible cave systems.
 - Evidence through GPR survey for possible post-Medieval structures.
 - Evidence through GPR survey for possible 19th century structures.
- 5.1.2 Previous archaeological works in the area are limited; only two narrow service trenches excavated in 1998 by TPA are known in the immediate vicinity. These excavations reached a depth of c.900mm, failing to reach any Medieval levels, and demonstrated 'an accumulation of relatively recent humic deposits' (Figure 2) (Kinsley, 2000:17).
- 5.1.3 In addition to these specific interventions within the Outer Bailey, an impact assessment detailing the known heritage assets and interventions within the bounds of the castle was undertaken as part of the City Council bid for a Heritage Lottery funded redevelopment of the site (Kinsley 2012a).
- 5.1.4 Following extensive consultation between the key agencies, a decision was taken to locate the area of the current investigation on a portion of the green in the southeast corner of the Outer Bailey.

6 OBJECTIVES

6.1 Research Agenda

6.1.1 This project provides a rare opportunity to investigate the Nottingham Castle Scheduled Ancient Monument, which has been occupied for at least 950 years. Sites such as this are not often investigated and are currently identified as significant research objectives within the regional *Research Agenda and Strategy for the Historic Environment of the East Midlands* (Knight et al 2018):

6.5.4 Early Medieval: Inland towns, 'central places' and burhs.

How did Nottingham develop during the Anglo-Saxon and Viking periods?

7.4.1 High Medieval: Castle, military sites and country houses.

Was there continuity of location between castles and country houses, and are earlier structures concealed in later buildings?

8.1.4 Post-Medieval: Urbanism: morphology, functions and buildings.

What can studies of environmental data, artefacts and structural remains tell us about variations in diet, living conditions and status?

8.7.2 Post-Medieval: Battlefields and fortifications.

How can we refine our knowledge of Civil War defences and siege works?

9.5.2 Modern: Estates, parks, gardens and woodland.

What survives of country estates, parks and gardens, how are they distributed, and how should they be classified?

6.1.2 The project also provided synergies with the Strategic objectives of the Nottingham City Council Museums and Galleries Service Strategic Plan 2014–2018, in particular:

Section 2.1 Nottingham Castle

Section 3.2 Community

Section 3.4 Collaboration

Research Priority 3.1 *Heritage of Nottingham and the Urban Archaeology Data; Nottingham Castle Archaeological Research Programme*

6.1.3 The Strategic objectives proposed three aims for the project:

To undertake a targeted excavation of the Outer Bailey to allow a better understanding of the archaeological deposits and features present in the area adjacent to the curtain wall, south of the previous excavations adjacent to the gatehouse and disabled WC.

To engage local volunteers in the archaeology of Nottingham Castle, and to build relationships between the people of Nottingham and their cultural heritage.

To provide training to community volunteers in the processes and procedures of archaeological excavation and research.

6.2 Specific Research Questions

6.2.1 From the Regional Research Agenda and the Strategic Plan points above, nine research aims and questions specific to this site were formed:

- To identify the presence and extent of any features associated with Medieval activity within the Outer Bailey and to understand the nature of activity within the Outer Bailey in the Medieval periods
- To determine the nature/construction of the curtain-wall and its relationship to deposits within the Outer Bailey.
- What is the depth of material overlying the bedrock within the Outer Bailey, and what is the profile of the bedrock?
- What is the character of the material overlying the bedrock? How much of this material is deliberate landscaping and of what date? (EMH 9.5.2, EMH 7.4.1)
- Has the Outer Bailey been stripped back to bedrock or are relict land surfaces preserved beneath later landscaping material? (EMH 9.5.2)
- What environmental evidence remains of the Medieval, post-medieval and pre-20th-century gardens or allotments? (EMH 8.1.4)
- Does material evidence survive within relict soils and/or cut into bedrock, of the Civil War-era fortification of the Castle within the Outer Bailey? (EMH 8.7.2)
- Does material evidence survive within relict soils or cut into bedrock of known or unknown Medieval buildings within the Outer Bailey? (EMH 7.4.1)
- Does material evidence survive within relict soils or cut into bedrock of pre-Medieval usage of the Castle Rock? (EMH 6.5.4).

7 ARCHAEOLOGICAL METHODOLOGY

7.1 General conditions

- 7.1.1 All phases of excavation works in the Outer Bailey were carried out between 13th July 2015 and 17th August 2018 by TPA staff, trainees, Nottingham City Museums and Galleries volunteers and volunteers from the local community.
- 7.1.2 The archaeological excavation was undertaken in accordance with the approved WSIs (Johnson, 2015, TPA report number 43/2015, Johnson and Humphreys, 2016, TPA report number 35/2016 and Binns, 2017, TPA report number 080/2017), submitted to support the successful application for Scheduled Monument Consent. All works met with requirements and standards set out in *Management of Research Projects in the Historic Environment Project Planning Note 3 (MoRPHE PPN3): Archaeological Excavation* (English Heritage 2008), and the requirements and standards set by the Chartered Institute for Archaeologists (CIfA) in their *Code of Conduct* (CIfA 2014a), *Standard and Guidance for Archaeological Field Evaluation* (CIfA 2014b) *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological material* (CIfA 2014c); and *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives* (CIfA, 2014d).
- 7.1.3 Prior to the commencement of the excavation, the ground was CAT scanned for services by a trained member of TPA staff.
- 7.1.4 The location of the trenches, test pits and any archaeological features were located within the OS coordinate-system, in 3-dimensions, using a Leica CS15/GS15 RTK Differential GNSS (GPS) prior to excavation. Where it was impractical to use GPS (in proximity to overhanging tree-canopies), a Leica TCR 705 Total Station was used as an alternative and the trenches referenced to the OS grid.
- 7.1.5 All features and deposits encountered were excavated sufficiently to determine their survival, nature, plan, and form and to recover datable evidence.
- 7.1.6 All excavated features and deposits were hand cleaned and recorded photographically using both colour digital and black and white negative film, in a 35mm format.
- 7.1.7 All features and deposits were recorded at an appropriate scale by measured drawing. Sections of excavated features were recorded at a scale of 1:10 or 1:20 as appropriate. Archaeological features were hand cleaned and planned at a scale of 1:20. Spot heights were recorded relative to the Ordnance Datum.
- 7.1.8 Archaeological features and layers were given a four-figure context number e.g. 0001. Context sheets were completed for each context revealed.
- 7.1.9 Standard 40-litre environmental samples were to be taken from contexts if they were deemed to be of palaeo-environmental significance and would be given a two-digit sample number.
- 7.1.10 The location of all artefacts recovered in the subsoil or in features was recorded by context. Any finds located on the floor of the trench were recorded on hand drawn plans and were individually labelled with a three-letter code (e.g. AAA). All artefacts were treated in accordance with UKIC guidelines and First Aid for Finds (Watkinson & Neal, 1998). The finds processing was began on site and was completed within the TPA offices by TPA staff and volunteers.

7.2 Main Excavations

- 7.2.1 During the 2015 season, a rectangular trench measuring 15.5 x 5.5m was excavated. This section of excavation will be referred to as Area 01 throughout this report (Figure 9, Plate 1). The removal of c.250mm of modern topsoil was undertaken using a wheeled excavator with a back actor and a toothless ditching bucket. The trench was then hand excavated from this depth. Topsoil and subsoil were stored at a safe distance from the trench in separate piles. Spoil heaps were regularly sieved and metal detected for archaeological material.
- 7.2.2 Once the area had been hand excavated to a depth of approximately 1m, a section of the trench measuring 5.5 x 3.5m at the northwest end of the site was stepped in by 0.9m and hand excavated to a depth of 0.5m to the next archaeological horizon. This section of excavation will be referred to as Area 02 throughout this report (Figure 9). At the end of the 2015 season, the site was covered with a layer of geotextile at this depth before it was backfilled by machine.
- 7.2.3 During the 2016 season, the deeper section to the northwest was reopened down to the geotextile, and an extension was excavated to the northeast of the original trench down to the first archaeological horizon. These areas were excavated by machine. This new excavation area was L-shaped measuring a maximum northwest to southeast width of 8.5m and a maximum southwest to northeast length of 10.7m. This section of excavation will be referred to as Area 03 throughout this report (Figure 11). Area 02 was extended to the northwest and northeast by hand. This section of excavation will be referred to as Area 04 throughout this report. Area 04 was excavated to 0.8m in depth, slightly deeper than Area 02, in order to better clarify the shape of features. Area 04 measured a maximum of 7.1m wide and 5.9m long (Figure 20).
- 7.2.4 During the 2017 season Area 04 was re-excavated in order to hand excavate features revealed in 2016. Two extensions were opened to the northeast and northwest of Area 03, and are numbered in this report Area 05 and 06 respectively (Figure 11). These areas were opened to identify the full extent of the brick features revealed in 2016. Area 05 extended into an 'L' shape, measuring maximum lengths and widths of 5 x 3.7m. Area 06 measured 2 x 2m. At the end of the 2017 season, the site was covered with a layer of geotextile at this depth before it was backfilled by machine.

7.3 Test Pits

- 7.3.1 Three test pits were excavated near to the area of the 2015-2017 excavations, in order to establish the extent and character of the 20th century brick surface which continued beyond the limit of excavation. Believed to be a trackway for a searchlight truck, it was assumed that remains continued down to the main vehicle entrance to the castle near the gatehouse. Establishing the full extent of the remains towards the entrance would be determined by the commencement of the commercial works for the new visitors' centre.
- 7.3.2 Recording as a minimum included the location and extent of the test pits, their depth, and the deposits exposed, both by scale drawing (section and/or plan where applicable) and photograph (monochrome prints/digital).
- 7.3.3 In the absence of features, at a minimum a record (both written & photographic, with scale drawing where necessary) will be made to reflect the stratigraphic sequence of deposits present.

8 COMMUNITY PARTICIPATION METHODOLOGY

8.1 2015 Season

8.1.1 Community participation during the excavation was carried out at several different levels:

Community Dig - Drop in sessions

8.1.2 Over the first two weeks of the excavation, a drop in system was operated in which volunteers would partake in one or two day sessions, which were funded by Nottingham City Council. During this phase, up to six free places were offered to Nottingham City Museums and Galleries volunteers. These sessions were designed to provide the volunteers with an awareness of the processes involved in a modern archaeological excavation. This incorporated:

- Introduction and site tour
- Excavation (trowelling, mattocking and sieving)
- Site recording (drawing plans using a level)
- Finds washing and study

8.1.3 The following tasks were carried out on a rota basis to give all volunteers the opportunity to experience all of the elements associated with the archaeological investigation.

Finds washing

8.1.4 This essential task was carried out on site in order to streamline the post excavation process and, perhaps more importantly, it gave volunteers an opportunity to handle finds and examine them in closer detail. During this process, TPA members were also able to engage with volunteers to assess and discuss the artefacts recovered.

Finds processing

8.1.5 After finds had been washed and dried, volunteers were given the opportunity to categorise and group materials into separate bags by material i.e. glass, pottery, metal. This further gave volunteers the opportunity to scrutinise finds and become familiar with the various typologies.

Excavation techniques

8.1.6 Volunteers were introduced to the various methods of excavation. This included trowelling and hoeing techniques required to attain a clean surface for photographic purposes and to allow the identification of features. Students were also introduced to the more robust aspects of excavation which included the use of mattocks, shovels and how to remove quantities of soil safely and methodically. Furthermore, where individual features were present, students were taught to excavate deposits and maintain a good section.

Sieving

8.1.7 Soils removed from the site were managed and stored according to their originating context. Volunteers were then given the opportunity to sieve this soil for smaller finds which may have been missed during the hand excavation.

Recording

- 8.1.8 Volunteers were given the opportunity to experience the basic aspects of recording which involved drawing (planning and section drawing), an introduction to photography and surveying using an optic level.

Training Dig – Paying placements

- 8.1.9 Following on from the community dig, a more continuous and intensified excavation period began. This was designed to cater for those people wishing to develop a more detailed, practical understanding of archaeological fieldwork. Placements could pay for single days as taster sessions, or for the full week-long training programme. Modules based on different archaeological skills were scheduled for each day of the week. The excavation modules dealt with excavation, recording (using the YAT single context recording system), stratigraphic analysis and finds processing. The context of the work in each module in relation to the project aims and the wider history of Nottingham were explained in conjunction with visits, tours and lectures which formed part of the modules.
- 8.1.10 Continuing the format of a rota system, trainees were allocated more time in each area to achieve a greater understanding of the processes involved; building on confidence and understanding, allowing the student to take the knowledge learnt from this experience to further their careers or personal development in the subject.

Casual visitors

- 8.1.11 Casual visitors were able to view the excavations from behind a secure metal fence and information boards were attached to the fence to inform the general public. Furthermore, a member of TPA would always make every effort to be on hand to engage and answer questions visitors might have.

Family weekend (18th-19th July)

- 8.1.12 A free family orientated weekend was organised during the dig with extra family friendly activities to encourage children to get involved. Hour long slots were offered to up to 15 people per slot in order to maximise the number of families that could get involved.

8.2 2016 Season

- 8.2.1 A five week excavation was carried out using the training course format of 2015. Up to 12 trainees a day would be able to develop their archaeological skills through lectures, tours, workshops and excavation. A free family orientated weekend and taster days were once again offered, where trainees could join the excavation for a day rather than the full week-long course.
- 8.2.2 A limited number of free places were offered to people who lived within the county over the five weeks. These places were once again subsidised by the Nottingham City Council. NCMG volunteers were invited to fill 'explainer' roles, where they would be the main contact for casual visitors if they wanted to know more about the excavation.

8.3 2017 Season

- 8.3.1 A five week excavation was carried out using the training course format of 2015. Up to 12 trainees a day would be able to develop their archaeological skills through lectures, tours, workshops and excavation. A free family orientated weekend and taster days were once again offered, where trainees could join the excavation for a day rather than the full week-long course. This year TPA produced a skills booklet for the trainees, so

that trainers could sign off any skills learned, providing the trainees with the evidence they made need for university or other courses.

- 8.3.2 NCMG volunteers were again invited to fill 'explainer' roles, where they would be the main contact for casual visitors if they wanted to know more about the excavation. The volunteers created a video diary and a digital blog throughout the dig.

8.4 2018 Season

- 8.4.1 A five week excavation was carried out using the training course format of 2015. Up to 12 trainees a day would be able to develop their archaeological skills through lectures, tours, workshops and excavation. Works in the Outer Bailey consisted of test pits, a form of excavation that was new to the training programme. TPA produced skills booklets for the trainees providing the trainees with the evidence they made need for university or other courses.

9 RESULTS

9.1 Introduction

- 9.1.1 The results produced here are a combination of works that took place between 2015 and 2018. The layers and features will be discussed in date order from the earliest feature, regardless of which season they were excavated and regardless of whether they were reopened during 2016. Where stratigraphy was excavated during more than one season, the context numbers most recently allocated to these layers and features will be used here. A full list of context numbers used in all three seasons can be found in Appendix 1. The total area excavated over all seasons measured 132.32m² (Plates 1 – 10, 59 and 61).
- 9.1.2 Features of a similar shape, size, location and orientation have been grouped together and are therefore believed to be of the same date. A number of relationships between individual features has not yet been established due to the extremely close similarities between fills, but by grouping similar features together, tentative suggestions of phasing can be made.
- 9.1.3 At a depth of 1m, the trench was stepped c.800mm from the existing sections to create a safe working zone, and stratigraphy and features were removed from Area 2 measuring 5 x 3.25m (Plate 3), which was then extended into Area 4, measuring a maximum length and width of 6.7 x 6.9m (Plate 8). Brick structures [0100], [0126], [0231], [0238] [0239] and rubble layer (0118) within Areas 03, 05 and 06 to the northeast of Area 04 were left *in situ*.

9.2 Results – Main Excavations

Layer (0063)

- 9.2.1 The earliest layer encountered on site was friable mid-light yellow brown silt sand (0063). It was visible throughout Area 4 and was severely truncated by a number of the features described below, which were filled with very dark grey brown sand silt, similar to that of layer (0108) (Plates 8-10).

Linear Feature [0179]

- 9.2.2 The earliest feature revealed is slightly curved linear feature [0179], orientated north to south before curving southeast, within Area 4 (Figure 29 and 30). It comprised mid yellowish grey brown silt sand (0154), and it is truncated by a number of later features – gullies [0169], [0146], [0136], [0057], [0059], [0061], [0171], [0132] and [0173], pit/trough [0177] and troughs [0055], [0157], [0161] and [0163]. It stretches across the site, measuring at least 7.3 x 1.17m and cuts through layer (0063). Time restrictions prevented any investigations taking place to establish the age of this feature.

Pit [0237]

- 9.2.3 Truncated pit [0237] was uncovered near to the northeast facing section of Area 04 (Plate 33). It was truncated by gully [0059] and trough [0197]. It was at least 0.31m wide before truncation. The remaining quarter suggested an even and rounded feature. It was filled with a mid brown grey sand silt fill containing high quantities of charcoal. The feature was not excavated and therefore remains undated (Figure 29).

Gullies [0057], [0059], [0061], [0132], [0136], [0146], [0171], [0173], [0185] and [0188]

- 9.2.4 Ten regularly spaced and narrow linear features were uncovered, all orientated east northeast to west southwest (Figures 29 - 30). The all run parallel across site, however it is unclear as to their relationships with the features to the northeast of Area 04 and

so some of their lengths are not yet clear. Over the three seasons, all of these were partially explored through the excavation of intersections with other features. A number of their individual relationships with other features are unclear, however as a group, the gullies seem to be the earliest of the linear features in Area 4. They will be described here in order from north to south.

- 9.2.5 Gully [0185] is the most northerly of these linear features to be revealed in Area 04 (Plates 11 and 12). It is located 0.5m to the north of gully [0188] and was excavated within intersections 08, 09, 10, 14 and 20. Gully [0185] was cut by linear feature [0184]. Its relationship with [0186] and [0195] was unclear during excavation. Gully [0185] ranges from 0.25m wide and 0.28m deep in intersection 10, to 0.28m wide and 0.22m deep in intersection 14. 5.2m of its length was revealed in Area 4. The profile of gully [0185] in intersection 14 is slightly asymmetrical with almost vertical sides and a flat base. In intersection 09, the profile is more irregular, with more sloped sides and an uneven base. Gully [0185] was filled with very dark grey brown silt sand (0182). Within this fill were a range of finds, including 12th – 15th century green glaze and splashware, roof tile, animal bone, clay pipe stem and Midland yellow, suggesting an initial date of 17th-18th century (Figures 35-37 and 39).
- 9.2.6 Gully [0188] was excavated within intersections 08, 12 and 18, and is cut by linear features [0150]/ [0206] and [0138]. Its relationship with [0184] and [0189] was not made clear during the excavations of intersections 08 and 12 (Plate 13). It is at least 6.7m long and it terminates in the west corner of Area 04. Gully [0188] ranges from 0.30m wide and 0.12m deep in intersection 12, to 0.40m wide and 0.30m deep in intersection 08. The profile of gully [0188] in these intersections are very steep sided and flat based (Figures 48 and 50). It was filled with very dark brown grey sand silt (0170).
- 9.2.7 Gully [0146], located 0.53m to the south of gully [0188], was excavated within intersections 04 and 11 (Plates 14-16). It is cut by linear feature [0150] and rectangular feature [0148]. Its relationship with [0167], [0138] and [0189] is unknown. It is at least 6.1m long and it terminates in the west corner of Area 4. At its intersection with [0150] in intersection 04, it has steep sides and a concave base, measuring 0.36m wide and 0.14m deep. It was filled with very dark brown grey sand silt (0147), containing 15th – 17th century pottery and 18th-19th century clay pipe.
- 9.2.8 Gully [0136], located up to 0.32m to the south of gully [0146], was excavated within intersections 03, 04 and 16 (Plates 14, 16 and 17). It is cut by linear features [0150] and [0138], and rectangular feature [0148]. Its relationship with [0167] and [0189] is unknown. At its intersection with [0150] it had steep sides and a concave base, measuring 0.36m wide and 0.14m deep. It is at least 6.2m long within Area 4 and it terminates in the west corner of Area 04. It was filled with very dark brown grey sand silt (0137), containing 15th – 17th C. pottery, 17th-19th century clay pipe stems and bowl fragments and a nail (Figures 24, 26, 52 and 53).
- 9.2.9 Gully [0057], located in the middle of area 04 is up to 0.55m to the south of gully [0136]. It was excavated within intersections 03, 07 and 17 and is cut by linear features [0150] and [0138]. Its relationship with [0184] and [0189] is unknown. Its profile is recorded as very steep sides and a flattish base in intersections 03, 07 and 17. At its intersection with [0138], gully [0057] measures 0.27m wide and 0.3m deep (Plates 18-20). It is at least 5m long within Area 4, before it is lost in an amalgamation of features cut by pit [0130]. It was filled with very dark brown grey sand silt (0058) with occasional charcoal flecks. Fragments of CBM were found within this fill (Figures 30, 33, 54-55).
- 9.2.10 Gully [0059], located 0.4m to the south of gully [0057], was excavated within intersection 01. It is cut by linear features [0150] and [0138], and troughs [0055], [0155], [0157], and [0159]. At its intersection with [0055] it had moderately sloping sides and a concave base, measuring 0.45m wide and 0.14m deep (Plate 21). It is at least 4.4m long

within Area 04. It was filled with very dark grey sand silt (0060). No finds were associated with this feature.

- 9.2.11 Gully [0061], located up to 0.6m to the south of gully [0059], was excavated within intersections 01 and 13. Its relationship with troughs [0055], [0155], [0157], [0159] and [0197] was not made clear during the excavations of intersection 13. At its intersection with [0055] it had moderately steep undulating sides and a concave base, measuring 0.3m wide and 0.28m deep (Plates 21 and 22). It is at least 3.8m long within area 04. It was filled with very dark grey sand silt (0062). No finds were associated with this feature (Figure 57).
- 9.2.12 Gully [0171], located 0.45m to the south of gully [0061], was excavated within intersections 02 and 15. It is cut by trough [0134] but its relationship with [0161] was not made clear during the excavations. Gully [0171] is abutting [0197] and [0205] and therefore could be contemporary. At its intersection with [0134] it had moderately steep sides and a slightly uneven concave base, measuring up to 0.3m wide and 0.12m deep (Plate 23). Gully [0171] drops down suddenly as it draws level with troughs [0197] and [0205] and seems to start rising up again at the edge of excavation (Figures 39, 41, and 55) It is at least 3m long within Area 04. It was filled with very dark brown grey sand silt (0172) and contained animal teeth fragments.
- 9.2.13 Gully [0132], located 0.43m to the south of gully [0171], was excavated within intersections 02 and 15. It is cut by troughs [0134] and [0205], but its relationship with [0161] and [0163] was not made clear during the excavations. At its intersection with [0134] it had steep, slightly concave sides and a flattish base, measuring 0.36m wide and 0.14-0.2m deep (Plate 24). It is at least 2.2m long within Area 04. It was filled with very dark brown grey sand silt (0133), containing a fragment of tile (Figures 24, 40 and 44).
- 9.2.14 Gully [0173], located 0.5m to the south of gully [0132], is cut by troughs [0134] and [0205], but its relationship with [0161] and [0163] was not made clear during the excavations. Its relationship with trough [0134] was one of the clearest on site (Plate 25). It is at least 3m long within area 04. It was filled with very dark brown grey sand silt (0174).

Linear Features [0184], [0186], [0195] and [0240]

- 9.2.15 Four regularly spaced and narrow linear features were uncovered, all orientated west northwest to east southeast (Figures 29-30). They all run parallel across site, however it is unclear as to their relationships with the features to the northeast of Area 04 under pit [0130] and so some of their lengths are not yet clear. Over the 2017 season, three of these were partially explored through the excavation of intersections with other features. They will be described here in order from west to east.
- 9.2.16 Linear [0184], located in the middle of Area 04 is up to 0.85m to the southwest of gully [0186]. It was excavated within intersections 09 and 12 and cuts through gully [0185] but its relationship with [0189] was not made clear during the excavations. Its profile is recorded as almost vertical sides and an uneven base in intersection 09, measuring 0.35m wide and 0.26m deep (Plate 26). It is at least 4m long within Area 04, before it is lost in an amalgamation of features cut by pit [0130]. It was filled with very dark grey brown sand silt (0183). Fragments of bone, clay pipe stem and residual medieval pottery date this feature to the 17th-19th century (Figures 34 and 49).
- 9.2.17 Linear [0186], located 0.66m to the southwest of gully [0195], was excavated within intersection 10 (Figure 38). Its relationship with [0185] was not made clear during the excavations. Its profile is recorded as steep sides and an uneven base, measuring 0.38m wide and 0.15m deep (Plate 27). It is at least 2.8m long within Area 04. It was filled with very dark grey brown sand silt with mottles of reddish yellow sand (0187).

- 9.2.18 Linear [0195], located 0.73m to the southwest of gully [0238] was excavated within intersection 14. Its relationship with [0185] was not made clear during the excavations. Its profile is recorded as uneven sloping sides and an uneven base, measuring 0.51m wide and 0.20m deep (Plate 28). It is at least 1.8m long within Area 04. It was filled with very dark grey sand silt (0198).
- 9.2.19 Linear [0240], located in the northeast corner of Area 04 was not excavated. Its relationships with other features are unknown. Its profile and measurements are also unknown. It was filled with very dark grey brown sand silt (0216).

Linear Feature [0189]

- 9.2.20 Linear [0189], located in the middle of Area 04 is 0.64m to the southwest of gully [0184]. It diverges from linears [0184], [0186], [0195] and [0238], curving more to the southeast and is therefore not classed together with the linears above (Figures 29-30). It was excavated within intersections 08, 11 and 16 but its relationships with [0185], [0188], [0146], [0136] and [0202] was not made clear during the excavations. Its profile is recorded as steep and even sloping sides and a flat base in intersection 11, measuring 0.70m wide and 0.50m deep (Plate 29). It is at least 4.2m long within area 04. It was filled with black grey brown sand silt (0183). Bone fragments, tiles, clay pipe stem, a dressmakers pin, salt glazed stoneware and coarse earthenware were recovered from this feature. The stem has been initially dated to the 17th- 18th Century, with the pottery dated 17th-19th Century.

Trough/ linear feature [0175]

- 9.2.21 A badly truncated trough or pit feature [0175] was identified in the southeast corner of Area 04 (Figure 20). Feature [0175] forms the terminus of a trough or linear measuring 0.2m long and 0.4m wide. It is truncated by trough [0165] and filled with dark brown silt sand (0176). It remained unexcavated and its profile is unknown.

Troughs [0055], [0134], [0155], [0157], [0159], [0161], [0163], [0165], [0197] and [0205]

- 9.2.22 Ten trough shaped features were revealed at the south of Area 04. All troughs were orientated north-northwest to south-southeast and laid parallel to each other (Plates 6 and 7). They all seemed to be sub-rectangular in shape, with straight sides and slightly rounded corners. Four of these [0055], [0134], [0197] and [0205], were explored through intersections with gullies [0059], [0061], [0132], [0171] and [0173]. All troughs will be discussed here from southwest to northeast (Figures 29-30).
- 9.2.23 Trough [0205], in the southwest corner of Area 04, was fully excavated within intersection 15 (Plates 32 and 34). It measures 1.9m long and abuts gully [0171]. It cuts through gullies [0132] and [0173]. Its profile is recorded as 'U' shape, with even sloping sides and a rounded base, measuring 0.90m wide and 0.62m deep (Figure 57). It was filled with grey black sandy silt (0204) with rare stone inclusions. Green glazed pottery, bone, clay pipe and brick were recovered from fill (0204), initially dating the feature to the 17th-19th century.
- 9.2.24 Trough [0197], located 0.35m to the northwest of [0205], was excavated within intersection 13 (Plates 33-35). It measures 1.64m long and is cut by linear [0150]. Its relationship with [0061] was not made clear during the excavations. It abuts gully [0171]. Its profile is recorded as 'U' shape, with even sloping sides and a flat base, measuring 0.80m wide and 0.80m deep. Its northwest facing side is longer sloping. It was filled with very dark grey brown silt sand (0209). Pottery and clay pipe stems were recovered from fill (0209), initially dating the feature to the 17th-19th century.
- 9.2.25 Trough [0134], located 0.45m to the northeast of [0205], was excavated within intersection 02 (Plate 36-38). It cuts through gullies [0132], [0171] and [0173]. Its profile

is recorded as 'U' shape, with steep, even curved sides and a flat base (Figure 42). The base was recorded as sloping to the southeast. Trough [0134] measured at least 1.9m long, 0.55m wide and 0.57m deep. Two pieces of pottery were found in the dark brown grey sand silt fill (0135) of trough [0134], one medieval and one post medieval. Brick fragments and clay pipes were also located within this feature.

- 9.2.26 Trough [0159] is located 0.13m to the northwest of [0134] and was not excavated (Plate 39). It is cut by linear [0138] in plan but its relationships with [0059] and [0061] remain unknown. Trough [0159] measures 0.46m wide and 1.57m long. It is filled with very dark brown sand silt (0160).
- 9.2.27 Trough [0161] is located 0.31m to the northeast of [0134] and was not excavated. Its relationships with [0132], [0171] and [0173] remain unknown. Trough [0161] measures 0.46m wide and at least 1.71m long. It is filled with very dark brown sand silt (0162).
- 9.2.28 Trough [0157] is located 0.19m to the northwest of [0161] and was not excavated. Its relationships with [0059] and [0061] remain unknown. Trough [0157] measures 0.50m wide and 1.47m long. It is filled with very dark brown grey sand silt (0158).
- 9.2.29 Trough [0163] is located 0.36m to the northeast of [0161] and was not excavated. Its relationships with [0132], [0171] and [0173] remain unknown. Trough [0163] measures 0.52m wide and at least 1.69m long. It is filled with very dark brown grey sand silt (0158).
- 9.2.30 Trough [0055] is located 0.23m to the northwest of [0163], truncates gullies [0059] and [0061] and linear feature [0179]. It was fully excavated in intersection 01 and measured 1.45m long, 0.5m wide and 0.56m deep at the southeast end (Plate 21). The sides were steep and curved and the base was curved and sloping towards to the southeast end of the feature. No finds were retrieved from trough [0055]. This difference in size compared to trough [0134] and [0205] suggests that the two lines of trough shaped features may not have been part of the same sequence even though they are in close proximity to each other.
- 9.2.31 Trough [0165] is located 0.36m to the northeast of [0161] and was not excavated. Its relationships with [0132], [0171] and [0173] remain unknown. It cuts feature [0175]. Trough [0165] measures at least 0.34m wide and 1.69m long. It is filled with very dark brown grey sand silt (0158).
- 9.2.32 Trough [0155] is located 0.24m to the northwest of [0165] and was not excavated. Its relationships with [0055] and [0061] remain unknown. Trough [0155] measures at least 0.46m wide and 1.6m long. It is filled with very dark grey sand silt (0156).

Linear features [0138]/ [0190] and [0150] / [0206]

- 9.2.33 Two long linear features [0138]/ [0190] and [0150]/ [0206] were identified in the northwest corner of the dig area (Figure 29-30), orientated northwest to southeast and running parallel with each other and terminating at almost the same point.
- 9.2.34 Linear feature [0138] was excavated within intersections 03, 06 and 18 and measures 3.85m long and terminates in the middle of the site (Plates 40-44). It cuts through gullies [0059], [0057], [0136], [0146] and [0188] and trough [0159]. It is cut by irregular rectangular pit [0148]. In intersection 03 it has steep and even sides and a flat base, measuring 0.56 x 0.54m (Plate 17). It was filled with very dark grey brown sandy silt (0139). Clay pipe stems ranging from 17th to 19th century in date were associated with this feature.
- 9.2.35 Linear feature [0150], located 0.51m to the southwest of [0138], was excavated within intersections 04, 05 and 07 (Plates 45-47). It measures 3.5m long and terminates in the

middle of the site at almost the same point as [0138]. It cuts through gullies [0057], [0059] [0136], [0146], and [0188]. At its intersection with [0136] it has steep and even sides and a flat base, measuring 0.52m wide and 0.46m deep. It was filled with very dark grey brown sandy silt (0151) with rare stone and charcoal inclusions. Medieval, post medieval pottery, tile and clay pipe stems were recovered from fill (0151).

Pits [0148] and [0167]

- 9.2.36 During the removal of (0108), a number of animal burials were uncovered toward the southeast facing section of Area 02. The burials revealed three fully articulated skeletons and four skulls (Plates 42 and 43). The remains of the animals were removed over 2015 and 2016 seasons and the taxonomy is discussed in section 10. They are believed to relate to feature [0148], a sub-rectangular pit measuring 1.16 x 0.28 x 0.26m. It was revealed in intersection 03 (Figures 26 and 51). Pit [0148] was filled with dark grey brown sand silt (0149). It seems to cut through ditch [0138] within intersection 03.
- 9.2.37 A similar shaped feature [0167] was revealed in Area 04 0.63m to the southwest of [0148] and is therefore interpreted as contemporary with [0148]. This feature has not yet been excavated.

Posthole [0217]

- 9.2.38 Vertical sided posthole [0217], was found immediately in front of the north east facing section of Area 4. (Plate 48). It measured 0.19 x 0.19m and up to 0.19m deep. The base was uneven and the profile square shaped. It contained black brown silt (0218) and yellow sand (0223) filled with large stone fragments. The phasing and date of this feature is unknown (Figures 29 and 30).

Pit [0199]

- 9.2.39 Sub angular pit [0199] was found associated with the intersection of gully [0188] and ditch [0184]. It had even sloping sides; the base has been lost in the intersections. 0.1m of its width was revealed (Figure 47). It contained black brown silt (0241). The phasing and date of this feature is unknown (Figures 29 and 30).

Pit [0202]

- 9.2.40 Sub angular pit [0202] was found associated with the intersection of gully [0146] and ditch [0189]. It had even sloping sides, the base was not revealed. It measured 0.60m wide. Its relationships with gully [0146] and ditch [0189] are unknown and therefore a date is also unknown (Figures 29 and 30).

Pit [0208]

- 9.2.41 Rounded pit or posthole [0208] was found associated with [0189] to the northwest end of Area 04. It measures 0.35m in diameter and 0.10m deep, with even sloping sides and a rounded base. Its relationship with ditch [0189] is unknown and therefore a date is also unknown (Figures 29 and 30).

Layer (0108)

- 9.2.42 The complete removal of (0102) within Area 4, to a total depth of 0.3m revealed dark greyish brown sand silt (0108) across the lowered area (Plate 49-50). Layer (0108) is distinguishable from (0102) due to the lower percentage of inclusions and a firmer compaction. A number of finds, ranging from clay pipe and pottery to animal bone, were uncovered. They generally ranged in date from the 17th to the 19th century, with a few residual sherds of pottery dating to the late medieval period.

Gully [0121]

- 9.2.43 Shallow gully [0121] was revealed cutting into layer (0108). It was orientated northeast to southwest across the northeast end of Area 4 (Plates 51 and 54), and measured a minimum length of 6.7m, 0.57m wide and 0.1m deep. The fill of the gully comprised mid brown orange sand with a high percentage of well rounded pebbles (Figures 18, 19 and 22). Gully [0121] was covered by (0102).

Pit [0130]

- 9.2.44 Steep sided midden pit [0130], was found abutting the south-eastern face of structure [0126] (Plates 52-54). It measured 0.82 x 0.73m and 0.64m deep. The base was rounded and cut through (0108) into earlier garden features. It contained dark greyish brown sand silt (0131) filled with large brick and stone fragments. Pottery fragments of white bodied earthenware, and salt glaze stoneware suggest the midden pit to be 19th century in date (Figures 20 and 22).

Brick structure [0126] and [0222]

- 9.2.45 Square brick structure [0126] protrudes from the southwest facing section of Area 04 (Plates 54-58). The length of the structure measured 1.31m wide and 0.95m deep before abutting northwest to southeast orientated wall [0222] (Figures 19 and 22). [0126] comprised up to three brick courses deep, and two courses wide on the northwest and southeast faces. White mortar on top of these bricks suggests the structure would originally have been higher and may have related to the allotment structure to the northeast. The middle of the structure was filled with yellowish brown silt sand (0127) with more than 60% brick fragment inclusions measuring 0.2m deep. Both structure [0126] and fill (0127) were found to be above dark grey brown silt sand (0108) and were buried by (0102). Wall [0222] measured 1.4m long and was excavated to a depth of 0.47m, up to 6 courses deep. It extends beyond structure [0126] to the northwest.

Brick structure remains [0231], [0238] and [0239]

- 9.2.46 Remains of a brick structure were uncovered in Area 05 at the far north eastern end of the trench (Plate 59 and Figure 63). The remains consisted of two bricks protruding from an artificial cut, orientated northeast to southwest. Their full lengths were unknown and they measured 0.11m wide. To the northeast of remains [0231], the remains of wall [0238] were uncovered. Wall [0238] consisted of five bricks laying with headers abutting orientated northwest to southeast. One more brick abuts this wall orientated northeast to southwest. The bricks measure 0.22m x 0.11m and the entire remains measure 0.93m. Some of these bricks are covered in mortar suggesting they were once a part of a higher structure. Further to the northeast of remains [0238] are wall remains [0239], orientated northwest to southeast. Wall [0239] is two courses wide and measures 1.25m long. A large part of the wall is covered in mortar. The bricks measure that are visible 0.22m x 0.11m. The remains are thought to be associated with an allotment structure visible on the 1880 first edition OS map (Figure 8).

Layer (0102) and associated features

- 9.2.47 At a depth of 1m below the ground surface, sandy silt loam layer (0102) with a high ash content was uncovered (Plate 1). Regularly spaced linear gully features were observed within this horizon (Plate 64). These linear features [0103], [0104] and [0105] were found to be roughly north-south aligned and measured c.0.3m in width by 0.1m in depth (Figure 15). They had displaced (0102) rather than truncating it, suggesting that linear features [0103], [0104] and [0105] could be plough furrows and (0102) the allotment soils. They were infilled with the redeposited material layers (0113) and (0114), suggesting that these features would have still been visible prior to this

deposition event. Finds from (0102) such as a degraded metal paint tin (AAQ) and two mid-19th century salt-glazed earthenware bottles indicate a 19th century date for its deposition.

Brick surface [0100], [0118] and [0153]

- 9.2.48 Brown and black silt layers full of rubble and demolition fragments (0116), (0123) and (0129) were removed from the northeast end of the site to reveal linear brick and stone surface [0100], orientated northwest to southeast across site (Plates 60 and 61). It was found to be abutting layer (0102) discussed above, and the structure is therefore potentially contemporary with this layer. An uneven layer of brick and stone rubble [0118] was found to be abutting surface [0100] (Figures 16 and 17). Fragments of lime mortar found on the bricks suggest that they are not *in situ* and have been disturbed. An exploratory excavation revealed rubble layer (0118) to be directly above orange brown bedding sand (0128). Limestone flagstones and associated aligned brickwork [0153] were found against the southwest facing section, and seemed to be *in situ* (Figure 19). The two flagstones that were not fully exposed measured 0.45 x 0.39 x 0.03m and a square space to the northwest of these suggests that there may have been a third flagstone sitting in alignment. The six bricks, laid on edge, abutted the southwest edge of the flagstones. In total, 7.5 x 3.6m of the brick surface was revealed.
- 9.2.49 A high number of carbon arc rods were found amongst the loose brickwork. These suggest that the brickwork could be the remains of a surface used for hardstanding by search light trucks during the early part of the 20th century.

Modern ditch [0225]

- 9.2.50 A rectangular cut was revealed in Area 03, running parallel with and potentially disturbing the edge of brick surface [0118]. The edges are vertical and the base is flat. It measured 3.7 x 0.84 x 0.36m (Plates 62 and 63). It was filled with mottled yellow sand (0229) to a depth of 0.11m in section and primary fill of friable brown grey silt sand (0224) to the base. Fill (0224) contained whole loose bricks suggesting that this ditch has disturbed the edge of brick surface [0118]. Sherds of white bodied earthenware and medieval pottery were found with this feature (Figures 58 and 63).

Modern feature [0020]

- 9.2.51 Square cut feature [0020], was encountered to the southeast of [0015] and measured 0.6 x 0.6 x 0.2m (Plate 66). Upon excavation it was established that the upper fill, (0021), consisted of loose, dark-grey silt sand with a concentration of ash contained within it. Below this deposit lay a square concrete foundation [0023]; towards the centre of this concrete pad an iron post, which had been cut off level with the foundation surface (Figures 13 and 16). The pad [0023] was sealed by layers identified relating to the early-20th century deposition layers listed above and is likely to have been the foundation for a signpost erected during the late 19th century, possibly when the castle was first acquired by Nottingham City Council.

Modern Landscaping layers (0012), (0017), (0018), (0022), (0033), (0034), (0036), (0037), (0038), (0043), (0044), (0110), (0111), (0112), (0113), (0114), (0115), (0142), (0143), (0047), (0048)

- 9.2.52 The initial strip of the area revealed humic, dark grey-brown silt topsoil (0109) averaging 200mm in depth (Figures 23 and 27). Removal of topsoil (0109) and mid grey subsoil (0152) revealed a number of late 19th and 20th century redeposited sand and silt layers (0012), (0017), (0018), (0022), (0033), (0034), (0036), (0037), (0038), (0043), (0044), (0110), (0111), (0112), (0113), (0114), (0115), (0142), (0143), (0047), (0048) measuring an average of 800mm in depth across the site (Plates 1 and 50). Complete removal of these layers produced a broad date range of finds spanning from the High

Medieval period to the 19th century. A number of modern features discussed below were found to cut through these redeposited layers into brown grey mottled sand silt (0102) toward the south of the site.

Modern Features [0003], [0005] and [0015]

- 9.2.53 Identified at this level was pit feature [0005] (Figure 12). This was highlighted, both in plan and in section, by a concentration of brick rubble midway alongside the eastern trench section. Excavation of [0005] revealed it was connected to an east–west aligned linear feature [0015], which measured 0.4m wide and 0.5m and contained lead water pipe (0025) (Plate 65).
- 9.2.54 Modern service trench [0003], which spanned the southeast end of the area, was known to have been excavated in 1998, the works for which were monitored by TPA. Orientated east to west, this feature was visible from the surface in section and measured 0.4m wide and 1m deep. Located at the base of [0003] was a thin gauge plastic water pipe serving a nearby tap (Figures 12 and 16).

9.3 Results - Test Pits

- 9.3.1 Three test pits were excavated within the Outer Bailey during the 2018 season of We Dig the Castle, all of which produced archaeological features.

Test Pit 03

- 9.3.2 Test pit 03 was located approximately 5m south east of the We Dig the Castle site excavated between 2015 and 2017 (Parker and Binns 2018). It reached maximum depth of 0.85m. The removal of dark brown sandy silt topsoil (3001) to a depth of 0.3m revealed archaeological deposits and features, which are to be discussed here from earliest to latest.
- 9.3.3 Irregular brick surface [3005] was revealed at a depth of 0.8m, and is possibly the continuation of brick surface (0100) recovered during excavations in 2016 and 2017 (Parker and Binns 2018). The brick surface is visible across the length and width of the test pit. The bricks are laid down in an irregular fashion, some of which are broken. The bricks individually measured c. 220mm x 110mm. Dark brown black gravel and tarmac deposit (3004) is located across the centre of Test Pit 03 but it is not clear if it is a deposited context that has been compacted down on top of brick surface [3005], or whether it represents part of the original surface.
- 9.3.4 Dark brown silty sand (3003) was recovered immediately above brick surface [3005] and deposit (3004) and measured a depth of 0.06m. It is likely to represent a build-up of silt prior to a series of landscaping events, represented by mottled light grey brown coarse sand (3002) containing sub-angular stones and CBM measuring 0.48m deep within Test Pit 03. Landscaping deposit (3002) could be the same deposit as the landscaping layers revealed during excavations in 2017 and 2018 (section 9.25 in Parker and Binns 2018)
- 9.3.5 Finds from Test Pit 03 were recorded by spit and included 18th to 19th century pottery, oyster shell and glass.

Test Pit 04

- 9.3.6 Test pit 04 was located approximately 14 m north of Test Pit 03. It reached maximum depth of 0.3m. The removal of dark brown sandy silt topsoil (4001) to a depth of 0.1m revealed archaeological deposits and features, which are to be discussed here from earliest to latest.

- 9.3.7 Loose dark brown sand silt (4006) was revealed at a depth of 0.3m. It was found abutting and infilling gaps between the red bricks that make up brick surface [4005]. 1.1m x 0.74m of brick surface [4005] was revealed in Test Pit 04. The individual whole bricks measured c. 220mm x 110mm however a number of bricks were fragmented. It is likely that this surface is that same as the surface revealed in Test Pit 03 (8.3.3 above) and sand silt layer (4006) is the same as the late 19th century allotment soil (0102) excavated during We Dig the Castle seasons 2017 and 2018 (Parker and Binns 2018)
- 9.3.8 Friable mid-dark grey brown clinker and gravel deposit (4004) was only observed in the north east corner of Test Pit 04, measuring 0.74m wide and 0.09m deep directly above surface [4005]. Loose mottled orange and dark brown sand deposit (4003) and friable mottled light grey and brown silt sand with frequent CBM inclusions (4002) were observed above (4004) across the entire test pit and measured a total depth of 0.15m. Both layers are thought to be landscaping deposits, associated with (3002) in Test Pit 03 and the landscaping layers revealed during excavations in 2017 and 2018 (section 9.25 in Parker and Binns 2018).

Test Pit 05

- 9.3.9 Test Pit 05 was located approximately 9 m north of Test Pit 04. It reached maximum depth of 0.92m. The removal of dark brown sandy silt topsoil (5001) to a depth of 0.3m revealed archaeological deposits and features, which are to be discussed here from earliest to latest.
- 9.3.10 Loose mid-dark orangey brown silt sand subsoil layer (5005) was recorded directly below topsoil (5001) to a depth of 0.62m. It was truncated by linear feature [5003], which was orientated northwest to southeast and measured 0.8m wide. It was not fully excavated but was at least 0.6m deep, with vertical sides. It was filled with loose mid grey brown silt sand (5004) with rubble inclusions, including slate fragments. It is likely to be the cut for a robbed out wall or allotment feature, backfilled with a mix of soil and demolition rubble, and possibly dates to when the site was being landscaped in the late 19th and early 20th centuries. Friable light brown-grey silt sand and modern stone deposit (5002) measuring 0.6m x 0.2m x 0.2m was found above linear feature [5003] and may have been a part of this backfilling process.

10 FINDS

10.1 2015 Finds

10.1.1 A total of 10,080 finds were recovered from the We Dig the Castle 2015 excavation (Plates 71-84). A table of these can be seen below.

Material	Quantity
Pottery	3021
Animal bone	1514
Glass	1893
Clay tobacco pipe	616
Slag	251
CBM	854
Mortar	47
Metal	1365
Coins	6
Coal	136
Flint	9
Stone	253
Shell	113
Miscellaneous	2

The Pottery

By Alison Wilson

10.1.2 A total of 3021 fragments of pottery weighing 34208g were recovered from the We Dig the Castle excavation in 2015. These ranged in date from the 12th to the 20th century. The assemblage was quantified by two measures: number of sherds and weight, and the resulting archive was recorded in table form. The pottery is stored in three archive boxes which are at present stored at the Trent & Peak Archaeology stores, Chilwell, Nottingham.

Discussion

10.1.3 The pottery assemblage is largely comprised of pottery of a post-medieval date with smaller quantities of medieval pottery scattered across the contexts.

10.1.4 The majority of the pottery was recovered from contexts (0008), (0014) and (0022) which were all made ground as well as (0029) which was buried topsoil and (0049) which was garden soil. Predictably the bulk of the pottery across all contexts consisted of earthenware plant pots with smaller quantities of other post-medieval pottery forms dating to between the 16th - 20th centuries. All contexts also contained medieval pottery sherds, ranging in date from the 12th to the 15th century. Given the disturbed nature of the ground the finds are likely to be residual with the pottery assemblage as a whole being representative of a site of medieval origin with later post-medieval development, and as such merits further study.

Pottery finds

Context	Quantity	Weight (g)	Description	Date range
0002	3	4	Porcelain	18th-19th century
0002	4	33	Midland purple	14th-16th century
0002	1	6	Shelly ware	11th-14th century
0002	193	1171	Green glaze/medieval	12th-15th century
0002	4	116	Slip glazed red earthenware	19th-20th century
0002	11	60	Mocha/Yellow ware	19th-20th century
0002	13	54	Mottled ware	17th-18th century
0002	20	134	Cistercian/Blackware	15th-19th century
0002	58	1282	Salt glazed stoneware	17th-19th century
0002	89	415	White bodied earthenware	18th-20th century
0002	278	3243	Coarse earthenware	17th-19th century
0002	19	130	Midland yellow ware	16th-18th century
0002	2	15	Slipware	17th-18th century
0003	1	15	Midland yellow ware	16th-18th century
0003	1	2	Mocha/Yellow ware	19th-20th century
0003	1	3	Midland yellow ware	16th-18th century
0003	5	70	Coarse earthenware	17th-19th century
0003	3	16	Salt glazed stoneware	17th-19th century
0003	2	11	Green glaze	12th-15th century
0003	9	39	White bodied earthenware	18th-20th century
0003	2	7	Cistercian/Blackware	15th-19th century
0005	1	5	Green glaze/medieval	12th-15th century
0008	2	7	Mottled ware	17th-18th century
0008	5	12	Slipware	17th-18th century
0008	3	65	Midland Yellow	16th-18th century
0008	9	98	Midland Purple	14th-16th century
0008	64	1141	Salt glazed stoneware	17th-19th century
0008	168	1668	Coarse earthenware	17th-19th century
0008	6	17	Slip glazed red earthenware	19th-20th century
0008	2	14	Porcelain figurine arm and figure	18th-19th century
0008	4	21	Porcelain	18th-19th century
0008	1	6	Cream ware	18th-19th century
0008	261	1132	White bodied earthenware	18th-20th century
0008	4	38	Mocha/Yellow ware	19th-20th century
0008	51	300	Green glaze/medieval	12th-15th century
0008	17	96	Cistercian/Blackware	15th-19th century
0011	1	4	Midland purple	14th-16th century
0011	1	3	White bodied earthenware	18th-19th century
0011	2	3	Coarse earthenware	17th-19th century
0012	1	4	Cistercian/Blackware	15th-19th century
0012	6	23	Coarse earthenware	17th-19th century
0012	2	54	White bodied earthenware	18th-20th century
0012	3	190	Salt glazed stoneware	17th-19th century
0012	1	2	Green glaze/medieval	12th-15th century
0014	44	1184	Coarse earthenware	17th-19th century
0014	1	17	Tin glazed earthenware	18th-19th century
0014	1	5	Shelly ware	11th-13th century

0014	13	43	Porcelain	18th-19th century
0014	4	14	Midland yellow ware	16th-18th century
0014	2	15	Slip glazed red earthenware	18th-19th century
0014	31	101	Cistercian/Blackware	15th-19th century
0014	6	57	Midland Purple	14th-16th century
0014	7	20	Mottled ware	17th-18th century
0014	19	43	Salt glazed stoneware	17th-19th century
0014	1	2	Slipware	17th-18th century
0014	101	801	White bodied earthenware	18th-20th century
0014	80	944	Green glaze/medieval	12th-15th century
0016	2	8	Green glaze/medieval	12th-15th century
0016	1	15	Coarse earthenware	17th-19th century
0016	4	24	White bodied earthenware	18th-20th century
0016	2	143	Salt glazed stoneware	17th-19th century
0022	6	62	Coarse shelly ware	11th-13th century
0022	91	1252	White bodied earthenware	18th-20th century
0022	20	1464	Salt glazed stoneware	17th-19th century
0022	6	16	Porcelain	18th-19th century
0022	6	40	Tin glazed earthenware	18th-19th century
0022	5	22	Slipware	17th-18th century
0022	51	366	Green glaze/medieval	12th-15th century
0022	5	51	Midland purple	14th-16th century
0022	9	112	Mottled ware	17th-18th century
0022	8	39	Cistercian/Blackware	17th-18th century
0022	13	149	Midland yellow ware	16th-18th century
0022	8	89	Mocha/Yellow ware	19th-20th century
0022	169	2307	Coarse earthenware	17th-19th century
0022	1	11	Nottingham splashed ware?	13th-15th century
0023	5	55	Coarse earthenware	17th-19th century
0023	1	11	Green glaze/medieval	12th-15th century
0029	1	7	Midland Yellow ware	16th-18th century
0029	3	54	Cistercian/Blackware	17th-18th century
0029	13	214	Mottled ware	17th-18th century
0029	12	24	Porcelain	18th-19th century
0029	257	2420	White bodied earthenware	18th-20th century
0029	10	67	Green glaze/medieval	12th-15th century
0029	4	16	Slipware	17th-18th century
0029	18	740	Salt glazed stoneware	17th-19th century
0029	356	5049	Coarse earthenware	17th-19th century
0029	3	72	Mocha/Yellow ware	19th-20th century
0032	2	1559	Salt glazed stoneware bottles	17th-19th century
0049	7	33	Mottled ware	17th-18th century
0049	30	627	Salt glazed stoneware inc. decorated punch bowl sherds	17th-19th century
0049	1	15	Westerwald Stoneware	17th century
0049	81	486	White bodied earthenware	18th-20th century
0049	3	50	Mocha/Yellow ware	19th-20th century
0049	22	85	Porcelain	18th-19th century
0049	5	24	Midland yellow ware	16th-18th century

0049	5	41	Slipware	17th-18th century
0049	10	127	Green glaze/medieval	12th-15th century
0049	1	17	Tin glazed earthenware	18th-19th century
0049	1	18	Shelly ware	11th-13th century
0049	2	41	Midland Purple	14th-16th century
0049	45	683	Coarse earthenware	17th-19th century
0049	1	3	Slip glazed red earthenware	18th-19th century
0049	7	165	Punch bowl shards (stoneware)	19th century
0049	14	87	Cistercian/Blackware	17th-18th century
0051	1	1	White bodied earthenware	18th-20th century
0051	3	13	Green glaze	12th-15th century
U/S	16	45	White bodied earthenware	18th-20th century
U/S	2	7	Slipware	17th-18th century
U/S	1	7	Mocha Ware	19th-20th century
U/S	8	67	Coarse earthenware	17th-19th century
U/S	14	66	Green glaze/medieval	12th-15th century
U/S	1	6	Slip glazed red earthenware	19th-20th century
U/S	2	29	Salt glazed stoneware	17th-19th century
U/S	2	32	Midland purple	14th-16th century

The Animal Bone

By Marius Ilie

10.1.5 A total of 1473 (6624g) animal bone fragments were recovered from 12 different contexts. Another 41 small fragments were unstratified. In addition, one context yielded the complete articulated skeletons of two dogs and the partial articulated skeleton of a cat. These three skeletons were counted as one specimen in order to avoid skewing the data, and are discussed below. All bones were analysed macroscopically and identified taxonomically. Butchery marks and pathology was also recorded. Butchery marks have been identified on 55 specimens (4%) of the assemblage and consist exclusively of cut and chop marks. One 40mm long fragment of sheep metapodial diaphysis displays a pattern of incisions across the posterior surface (fig. 1). These run in roughly equally spaced figures of "X" and indicate the bone was deliberately decorated. Almost half (N = 639, 46%) of the entire assemblage consisted of fragments too small to be identified on a taxonomical level or to be assigned a size category.

10.1.6 The remaining 54% of the assemblage is presented in the table below. All specimens were taxonomically identified or assigned to a size category when diagnostic features were missing. Medium sized mammals make up 25% of the total assemblage, followed by mollusc shell making up 7.7%, cattle remains (*Bos taurus* 6.4%) and sheep (*Ovis aries* 5.3%). Small mammals make up 4.1%, while chicken (*Gallus gallus*) and unidentified bird bones are 2% and 3% respectively. Pig (*Sus scrofa*) specimens represent 1.3% of the assemblage. The remaining 2% is made up of unidentified large mammal specimens (most likely cattle) (0.6%), fish bones (0.5%), with rodent, horse and rabbit/hare remains totalling 0.9% collectively. Context (0049), a late 18th - early 19th century deposit, interpreted as representing a potential period of abandonment, yielded the remains of two small dogs and a cat. The two dog skeletons were complete and articulated, while the cat was articulated but only partially represented. One of the dogs showed signs of

arthritis on the tibial plateau and distal femur, indicative of old age. It remains unclear if the three skeletons represent pet burials. With the exception of the three articulated skeletons, the rest of the assemblage is made up almost exclusively of animals raised for meat, and is likely to represent refuse from domestic activities.

Size category	N	%	Weight (g)
Unidentified	639	43.4	996
Medium mammal	368	25	1135
Shell	113	7.7	721
Cow	95	6.4	2270
Sheep	78	5.3	716
Small mammal	61	4.1	93
Bird	41	2.8	54
Chicken	28	1.9	29
Pig	19	1.3	226
Dog	9	0.6	44
Large mammal	8	0.5	301
Fish	7	0.5	10
Cat	1	0.2	1
Rodent	4	0.2	4
Horse	1	0.1	24
Rabbit/hare	1	0.1	1
Total	1473	100.0	6624

Taxon distribution represented as total number (N) and percentage of overall assemblage (%).

The Glass

10.1.7 A total of 1893 glass fragments weighing 10346g were recovered from 12 different contexts along with another 77 unstratified fragments. Most of the glass could be loosely dated to the 18th and 19th centuries, the only certain dates being from two almost complete bottles: one coffee bottle dated to the 19th century with the inscription "COFFEE EXTRACT W. P. BRANSON" embossed on the front, and a second bottle dated more accurately c. 1889-1918 with the inscription "JAMES THRIVES REGISTERED NOTTINGHAM." Two more complete bottles dated to the 19th - 20th centuries have been recovered. One with the incomplete inscription "...POONS; BOTTLE MADE IN FRANCE" embossed. With the exception of one fragment of glass slag and an unstratified glass marble (modern), the remaining assemblage was represented by 19th- 20th century bottle and window fragments.

Context	Count	Weight	Object	Period
0002	411	1434	Mixed window and bottle	19th - 20th centuries
0002	2	25	Vessel fragments	Modern
0002	1	3.5	Glass slag.	P/M
0003	1	6	Glass marble	19th century
0007	29	103	Mixed window and bottle	19th - 20th centuries
0008	170	1324	Mixed window and bottle	c 19 th
0011	1	0.5	Window fragment	19th - 20th centuries
0012	8	15	Mixed window and bottle	19th - 20th centuries
0014	378	1878	Mixed window and bottle	19th - 20th centuries
0016	2	1	Mixed window and bottle	19th - 20th centuries
0021	1	4	Mixed window and bottle	19th - 20th centuries
0022	420	2036	Mixed window and bottle	19th - 20th centuries
0023	9	21	Window fragments	Modern
0029	302	1919	Mixed window and bottle	C. 1889 – 1918
0049	80	668	Mixed window and bottle	19th - 20th centuries
U/S	77	899	Mixed window and bottle	Modern
U/S	1	9	Glass marble	Modern

The Clay tobacco pipes

10.1.8 A total of 558 (1524g) clay pipe fragments were recovered from 10 different contexts, with another 58 fragments (150g) being unstratified. Fragments of both stem and bowl were recovered, including complete bowls. Where possible, the clay tobacco pipe finds have been dated using bore hole diameter (early clay pipes have a bore diameter of 3mm, decreasing over time until stems by the middle of the 18th century had a bore of less than 2mm). With the exception of one stem dated to the 16th century, all others belong to the 17th – 18th centuries. The assemblage is of a good size and range, though most fragments are not decorated in any way. Only three decorated stems and one bowl were recovered, while a maker's mark was present on a single stem, meriting further investigation.

Context	Count	Weight (g)	Description	Date range
0002	132	336	Partial bowls and stem fragments. One stem with maker's mark. One bowl with flat heel and one with vegetal motif.	17th - 19 th century
0007	7	14	Stem fragments	17th - 18 th century
0008	4	20	Unmarked stems	17th-19 th century
0008	116	295	One complete bowl. Partial bowls and stem fragments. One stem decorated	16th-19 th century
0012	1	2	Stem fragment	18th century

0014	68	142	Bowl and stem fragments. One stem decorated	17th-19 th century
0022	97	317	Bowls with spurs, one with flat heel, and stem fragments	16th - 18 th century
0029	26	66	Partial bowls and stem fragments. One bowl with flat heel.	17th - 18 th century
0049	103	313	Partial bowls and stems. One complete bowl with flat heel.	17th - 18 th century
0051	1	3	Bowl fragment	17th-19 th century
0051	3	16	Unmarked stems, one with flat heel	17th-18 th century
U/S	45	119	Unmarked stem, one spur with rosette	17th-18 th century
U/S	13	31	Partial bowl and stems	19th century

The Slag

10.1.9 A total of 251 slag specimens weighing 3391g were recovered from nine different contexts, with one additional specimen being unstratified.

Context	Count	Weight (g)	Description
0002	6	351	Slag
0007	1	17	Slag
0008	67	1165	Slag
0014	52	789	Slag
0016	2	64	Slag
0021	4	96	Slag
0022	29	211	Slag
0023	53	369	Slag
0029	36	317	Slag
U/S	1	12	Slag

The CBM, Mortar and Drain pipe

10.1.10 A total of 361 brick fragments were recovered from 11 different contexts, with an additional four unstratified. Of these, 22 can be attributed to the modern period, while the remaining 343 are probably post-medieval.

10.1.11 Tile recovered from site was represented by 403 specimens from nine different contexts, with one unstratified specimen. Eight tile fragments were attributed to the medieval period, with one floor tile and another roof tile fragment being modern. The rest are likely to be roof tile fragments and have been attributed to the post-medieval period. A specimen of decorated corner tile was also identified.

10.1.12 Drain pipe was represented by 83 post-medieval fragments weighing 10253g recovered from four contexts, with a further two unstratified fragments. One fragment from context (0002) had a decorated edge.

10.1.13 39 fragments of mortar were recovered from four contexts with a further eight unstratified pieces.

Contex	Count	Weight	Object	Period
0001	3	4485	Brick fragments	Post-Medieval
0002	102	3830	Brick fragments	Post-Medieval
0008	92	9801	Brick fragments	Post-Medieval
0011	1	2016	Brick fragments	Post-Medieval
0012	1	997	Brick fragment	Post-Medieval
0014	55	1043	Brick fragments	Post-Medieval
0014	1	123	Brick fragments	Post-Medieval
0016	4	317	Brick fragments	Post-Medieval
0021	6	325	Brick fragments	Post-Medieval
0022	12	987	Brick fragments	Post-Medieval
0022	48	2197	Brick fragments	Post-Medieval
0029	20	836	Brick fragments	Post-Medieval
0029	9	1095	Brick fragments	Post-Medieval
0051	7	141	Brick fragments	Post-Medieval
U/S	4	336	Brick fragments	Post-Medieval

Contex	Count	Weight	Object	Period
0002	14	2293	Tile	Post-Medieval
0007	13	185	Tile fragments	Post-Medieval
0008	1	409	Decorative corner tile	Post-Medieval
0011	1	51	Roof tile fragments	Post-Medieval
0014	59	2315	Roof tile fragments	Post-Medieval
0014	2	24	Roof tile fragments	Medieval
0014	2	190	Roof tile fragments	Post-Medieval
0016	2	51	Roof tile fragments	Post-Medieval
0016	1	212	Floor tile	Post-Medieval
0022	29	1437	Roof tile fragments	Post-Medieval
0022	85	30399	Roof tile fragments, 1 x applied nib	Post-Medieval
0022	5	113	Roof tile	Medieval
0029	1	21	Tile fragment, green glaze	Medieval
0029	21	2838	Roof tile fragments	Post-Medieval
0029	1		Roof tile fragments	Post-Medieval
0029	2	1283	Tile fragment	Post-Medieval
0049	18	1334	Roof tile fragments	Post-Medieval
U/S	35	517	Roof tile fragments	Post-Medieval
U/S	1	12	Tile fragment, green glaze	Medieval
0008	51	1907	CBM fragments	Post-Medieval

0002	50	1895	CBM fragments	Post-Medieval
0023	8	94	CBM fragments	Post-Medieval
0014	1	2	CBM fragments	Post-Medieval
U/S	1	5	Tile fragment	Post-Medieval

Context	Count	Weight	Object	Period
0002	1	162	Drain pipe fragment, decorated edge	Post-Medieval
0002	4	115	Drain pipe fragment	Post-Medieval
0014	4	239	Drain pipe fragment	Post-Medieval
0022	65	8232	Drain pipe fragment	Post-Medieval
0029	9	1267	Drain pipe fragment	Post-Medieval
U/S	2	406	Drain pipe fragment	Post-Medieval

Context	Count	Weight	Object	Period
0002	3	322	Mortar fragment	Post-Medieval
0014	18	224	Mortar fragment	Post-Medieval
0022	5	53	Mortar fragment	Post-Medieval
0029	13	386	Mortar fragment	Post-Medieval
U/S	8	322	Mortar fragment	Post-Medieval

The Metal

10.1.14 A total of 1339 metal items were recovered from 11 contexts, while another 26 were unstratified. Of these, nine were made of lead (six unidentifiable) with the rest being ferrous metal heavily covered in rust. The identifiable lead artefacts included one musket ball with a slightly flattened facet, dated to the 17th century, and an unstratified token bearing a petal design, which suggested a date around the 17th/18th centuries. Most of the ferrous items are unidentifiable fragments, with a significant part of the assemblage consisting of nails and wire. Identifiable finds included four modern buttons, a buckle and a bowl/container as well as a modern lighter. It seems likely that with the exception of the 17th century musket balls, the assemblage fits within the 19th – 20th centuries.

Context	Count	Weight	Object	Period
0002	204	3018	Metal fragments and nails	19 th - 20 th century
0002	2	1	Buttons	Modern
0007	8	54	Metal fragments and nails	19 th - 20 th century
0007	2	20	Nail (Fe) and lead (Pb) fragment	19 th - 20 th century
0008	107	1485	Metal fragments and nails	19 th - 20 th century
0011	3	43	Metal fragments and nails	19 th - 20 th century
0012	5	40	Metal buckle and fragments	19 th - 20 th century
0014	388	5036	Metal fragments and nails	19 th - 20 th century

0014	1	3	Button	19 th - 20 th century
0014	1	265	Bowl/container.	19 th - 20 th century
0021	3	27	Misc. - nail, spring and piece.	19 th - 20 th century
0022	460	5776	Misc. - nails, wires and pieces	19 th - 20 th century
0022	1	3	Button	19 th - 20 th century
0023	3	10	Metal fragments and nails	19 th - 20 th century
0029	1	29	Match case/lighter	Modern
0029	2	27	Lead seal and fragment	19 th - 20 th century
0029	107	3064	Metal fragments, nails and wire	19 th - 20 th century
0049	40	560	Metal fragments and nails	19 th - 20 th century
U/S	1	6	Lead token	17 th - 18 th century
U/S	21	106	Metal fragments and nails	19 th - 20 th century
U/S	3	16	Lead fragments	19 th - 20 th century
U/S	1	702	Container	19 th - 20 th century
U/S	1	25	Musket ball	17 th century

Coins

10.1.15 The site yielded a total of six coins, ranging from the medieval to the Victorian periods. The oldest coin was a short cross penny (quarter), dated between 1133-1247. A long cross penny (half) was also discovered, dated between 1247 and 1279, which is likely to have been minted during the reign of Henry III. The post-medieval period was represented by a farthing from the reign of James I (1603 - 1625) and a halfpenny from the reign of William III (1689 - 1702). Two Victorian coins were also recovered; a farthing struck in 1869 and a half penny struck in 1875.

Context	Count	Weight	Object	Period
0002	1	1	Farthing	Post-Medieval
0008	1	3	Farthing	Post-Medieval
0014	1	1	Short cross penny	Medieval
0029	2	7	Long cross penny, Halfpenny	Medieval/Post-Medieval
U/S	1	4	Penny	Post-Medieval

The Coal

10.1.16 A total of 130 coal fragments weighing 1.18kg were recovered from seven contexts, with another six unstratified fragments.

Context	Count	Weight	Object	Period
0002	28	79	Coal fragments	Post-Medieval
0008	4	17	Coal fragments	Post-Medieval
0014	59	97	Coal fragments	Post-Medieval
0016	2	15	Coal fragments	Post-Medieval
0021	2	6	Coal fragments	Post-Medieval
0022	29	110	Coal fragments	Post-Medieval
0029	6	30	Coal fragments	Post-Medieval

U/S	6	33	Coal fragments	Post-Medieval
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The flint

10.1.17 Nine flint pieces of flint were recovered from three contexts. Three of these show signs of being worked and are likely to be debitage.

Context	Count	Weight	Object	Period
0008	1	3	Flint	Prehistoric
0014	3	9	Flint	Prehistoric
0022	5	27	Flint	Prehistoric

The stone

10.1.18 A total of 236 slate fragments (5997g) and 17 stone fragments (2111g) were recovered from site. At least four of these show signs of working.

Context	Count	Weight	Object	Period
0002	43	1574	Slate fragments	Post-Medieval
0002	1	118	Rounded stone fragment	Unknown
0007	2	38	Slate fragments	Post-Medieval
0008	57	2050	Slate fragments	Post-Medieval
0008	1	2	Quartz fragment	Unknown
0011	1	1685	Worked sandstone	Unknown
0012	3	24	Slate fragments	Post-Medieval
0014	36	434	Slate fragments	Post-Medieval
0014	7	181	Stone	Unknown
0016	1	238	Slate fragments	Post-Medieval
0022	40	303	Slate fragments	Post-Medieval
0022	5	123	Stone fragments	Unknown
0029	42	991	Slate fragments	Post-Medieval
0049	4	89	Slate fragments	Post-Medieval
U/S	8	256	Slate fragments	Post-Medieval
U/S	2	2	Quartz fragments	Unknown

Miscellaneous

10.1.19 Miscellaneous finds included a shirt button made of shell recovered from context (0022) along with a plastic bottle cork and stopper in the same context, all modern.

Context	Count	Weight	Object	Period
0022	1	1	Shell button	Modern
0022	1	21	Plastic bottle stopper	Modern

10.2 2016 Finds

10.2.1 A total of 3591 finds were recovered from the We Dig the Castle 2016 excavations. A quantification of these finds can be seen in the table below.

Material	Quantity
Animal bone	548
CBM	147
Clay tobacco pipe	445
Glass	480
Metal	146
Pot	1727
Slag	50
Slate	21
Stone	18
Coal	9

Quantification of finds

The Pottery

Alison Wilson

10.2.2 A total of 1727 fragments of pottery weighing 19133g were recovered from the excavation, ranging in date from the 12th to the 20th century. The assemblage was quantified by two measures: number of sherds and weight, and the resulting archive was recorded in table form. The pottery is stored in two archive boxes, which are at present stored at the Trent & Peak Archaeology stores, Chilwell, Nottingham.

Discussion

10.2.3 The pottery assemblage was largely comprised of pottery of a post-medieval date with smaller quantities of medieval pottery scattered across the contexts.

10.2.4 The majority of the pottery was recovered from contexts (0102) and (0108) which are layers within the 19th century allotment. Predictably the bulk of the pottery in these contexts consisted of earthenware plant pots with smaller quantities of other post-medieval pottery forms dating to between the 17th - 19th century. These contexts also contained medieval pottery sherds, ranging in date from the 12th to the 15th century, which given the disturbed nature of the ground are likely to be residual. A ceramic doll's head (modern) was recovered from context (0108).

10.2.5 The pottery assemblage as a whole is representative of a site of medieval origin with later Post-Medieval development, and as such merits further study.

Context	Quantity	Weight (g)	Description	Date range
0101	1	24	Green glaze	12th-15th century
0101	2	3	Porcelain	18th-19th century
0101	2	134	Coarse earthenware	17th-19th century
0102	12	129	Slip glazed red earthenware	19th-20th century
0102	559	7163	Coarse earthenware	17th -19th century
0102	11	767	Salt glazed stoneware, inc. decorated punch bowl	17th-19th century
0102	323	1780	White bodied earthenware	18th-20th century
0102	10	41	Tin glazed earthenware	18th-19th century
0102	8	32	Slipware	17th-18th century
0102	45	375	Green glaze	12th-15th century
0102	12	176	Mocha ware/yellow ware	17th-20th century
0102	9	135	Midland yellow ware	16th-18th century
0102	14	165	Cistercian/Blackware	15th-19th century
0102	33	108	Porcelain	18th-19th century
0102	1	20	Cistercian/Blackware	15th-19th century
0102	7	64	Midland purple	14th-16th century
0107	6	13	White bodied earthenware	18th-20th century
0107	1	21	Coarse earthenware	17th-19th century
0108	9	310	Midland purple	14th-16th century
0108	1	10	Shelly ware rim	11th-13th century
0108	33	57	Green glaze/medieval	13th-15th century
0108	1	2	Slipware	17th-18th century
0108	19	123	Mocha ware	19th-20th century
0108	3	8	Midland yellow ware	16th-18th century
0108	72	524	White bodied earthenware	18th-20th century
0108	7	38	White bodied earthenware - transfer print	18th-20th century
0108	139	1614	Coarse earthenware	17th-19th century
0108	11	367	Salt glazed stoneware	17th-19th century
0108	25	244	Cistercian/Blackware	15th-19th century
0108	1	15	German Westerwald Stoneware	17th century
0108	5	84	Mottled ware	17th-18th century
0108	1	3	Tin glaze ware	17th century
0108	3	9	Cream ware	18th century
0108	1	9	Ceramic doll head	18th-19th century
0109	7	14	White bodied earthenware	18th-20th century
0112	1	6	Green glaze	12th-15th century
0014	15	201	Green glaze	12th-15th century
0115	2	9	Mocha/Yellow ware	19th-20th century
0115	3	8	White bodied earthenware	18th-20th century
0116	11	1164	Coarse earthenware	17th-19th century
0116	2	6	White bodied earthenware	18th-20th century
0116	1	6	Blackware	18th-19th century
0116	1	1	Slipware	17th-18th century

0116	1	1	Salt glazed stoneware	17th-19th century
0121	1	4	Midland purple	14th-16th century
0121	2	128	Coarse earthenware	17th-19th century
0121	1	10	Slipware	17th-18th century
0121	1	5	Cistercian/Blackware	15th-19th century
0121	1	2	Mocha/Yellow ware	19th-20th century
0123	1	66	Coarse earthenware	17th-19th century
0127	1	1	Midland purple	14th-16th century
0127	1	3	Tin glazed ware	18th-19th century
0130	9	206	Coarse earthenware	17th-19th century
0130	2	54	White bodied earthenware	18th-20th century
0134	1	23	Midland yellow ware	16th-18th century
0136	1	3	Cistercian/Blackware	15th-17th century
0138	2	126	German stone ware	15th century
0146	1	2	Coarse earthenware	17th-19th century
0146	1	12	Midland yellow ware	16th-18th century
0146	1	6	Salt glazed stoneware	17th-19th century
0151	1	6	Green glaze	12th-15th century
0151	1	11	Cistercian/Black ware	15th-19th century
Spoil	11	30	Green glaze	12th-15th century
Spoil	2	4	Cistercian/Blackware	15th-17th century
Spoil	8	24	Coarse earthenware	17th-19th century
Spoil	1	2	Mottled ware	17th-18th century
Spoil	2	3	Salt glazed stoneware	17th-19th century
Spoil	1	11	Midland yellow ware	16th-18th century
Spoil	2	2	Mocha ware	19th-20th century
Spoil	1	3	White bodied earthenware	18th-20th century
Spoil	1	10	Midland purple	14th-16th century
U/S	24	279	Green glaze	12th-15th century
U/S	68	1034	Coarse earthenware	17th-19th century
U/S	45	156	White bodied earthenware	18th-20th century
U/S	3	18	Yellow ware	19th-20th century
U/S	17	166	Cistercian/Blackware	15th-17th century
U/S	29	431	Salt glazed stoneware	17th-19th century
U/S	10	37	White bodied earthenware	18th-20th century
U/S	15	108	Slipware	17th-18th century
U/S	20	86	Green glaze/medieval	12th-15th century
U/S	3	25	Shelly ware	11th-13th century
U/S	1	19	German stoneware	17th-18th century
U/S	1	6	German Westerwald Stoneware	17th century
U/S	2	28	Anglo-Saxon	10th-11th century

The glass

10.2.6 A total of 480 glass fragments weighing 2130g were recovered. Of these 21 were unstratified, while the remaining 459 came from eight contexts. With the exception of a fragmentary perfume bottle potentially attributable to the post-medieval period, all the glass items belonged to the 19th – 20th centuries.

Context	Quantity	Weight (g)	Description	Dating
0101	2	369	Wine bottle bases	19th - 20th century
0101	1	72	Perfume bottle base	19th - 20th century
0101	147	103	Bottle and window fragments	19th - 20th century
0102	151	600	Window fragments	19th - 20 th century
0102	15	278	Wine bottle fragments	19th - 20 th century
0102	2	30	Mineral water bottle	19th - 20 th century
0102	28	175	Beer bottle fragments	19th - 20 th century
0102	5	33	Perfume bottle fragments	18th - 20 th century
0102	2	23	Decorated bottle (flower vase ?)	19th - 20 th century
0102	64	127	Mixed window and bottle fragments	19th - 20 th century
0107	7	12	Window fragments	19th - 20th century
0108	11	161	Bottle and window fragments	19th - 20th century
0109	4	20	Bottle fragments	19th - 20th century
0115	4	1	Clear fragments	19th - 20th century
0116	8	11	Beer bottle and window fragments	19th - 20th century
0123	2	4	Window fragments	19th - 20th century
0131	6	24	Window fragments	19th - 20th century
U/S	21	87	Window and bottle fragments	19th - 20th century

The slag

10.2.7 A total of 48 slag specimens were recovered from six different contexts, with another two specimens being unstratified.

Context	Quantity	Weight (g)	Description
0102	20	1439	Slag
0105	12	354	Slag
0108	7	1371	Slag
0121	1	88	Slag
0123	5	170	Slag
0135	1	5	Slag
U/S	2	22	Slag

The CBM, mortar and drain pipe

10.2.8 A total of 34 brick fragments were recovered from 10 different contexts, with an additional five unstratified fragments. 71 roof tile fragments and two floor tiles were recovered from 12 different contexts, with another 25 unstratified. One of the tiles could be placed in the medieval period, but the bulk of the material was undiagnostic and could only be assigned to a general period of medieval to modern. Mortar was represented by three fragments from three contexts and seven fragments of modern drain pipe were also recovered.

Context	Quantity	Weight (g)	Description	Date
0101	6	1207	Brick fragments	Post-Medieval
0102	7	287	Brick fragments	Post-Medieval
0102	1	2747	Brick	Post-Medieval
0108	6	1008	Brick fragments	Post-Medieval
0108	1	2858	Brick	Post-Medieval
0121	1	138	Brick fragment	Post-Medieval
0123	5	1892	Brick fragments	Post-Medieval
0127	7	1557	Brick fragments	Post-Medieval
U/S	1	273	Brick fragments	Post-Medieval
U/S	3	310	Brick fragments	Post-Medieval
U/S	1	100	Brick fragment	Post-Medieval

Context	Quantity	Weight (g)	Description	Date
0101	5	469	Tile fragments	P/M
0102	24	943	Tile fragments	P/M
0108	1	705	Large coping tile	P/M
0108	15	846	Tile fragment	P/M
0108	11	920	Tile fragments	P/M
0109	2	115	Tile fragments	P/M
0116	1	139	Tile fragment	P/M
0121	5	110	Tile fragments	P/M
0125	2	2580	Floor tile	P/M
0133	1	68	Tile fragment	P/M
0135	3	33	Tile fragments	P/M
0151	3	170	Tile fragment	P/M
U/S	17	437	Tile fragment	P/M
U/S	2	45	Tile fragments	P/M
U/S	1	51	Tile fragment	P/M
U/S	5	194	Tile fragments	P/M
U/S	5	194	Tile fragments	P/M

Context	Quantity	Weight (g)	Description	Date
0102	2	255	Drain pipe	Post-Medieval
0108	2	677	Drain pipe	Post-Medieval

U/S	3	870	Drain pipe	Post-Medieval
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Context	Quantity	Weight (g)	Description	Date
0102	1	52	Mortar fragment	Post-Medieval
0108	1	30	Mortar fragment	Post-Medieval
0127	1	51	Mortar	Post-Medieval

The Metal

10.2.9 A total of 128 metal objects were recovered from eight different contexts, with an additional 18 unstratified finds: 11 nails and one piece of wire, as well as four musket balls discussed below. All metal specimens belong to the 19th – 20th centuries, with the exception of three 17th century musket balls and a pistol shot, two of which have a flattened impact facet. Other than a lead plate and wire and a modern copper alloy machine component, all other metal items are ferrous metal and heavily covered in rust. With the exception of a few nails and a horseshoe, none of the metal ferrous metal finds could be identified.

Context	Quantity	Weight (g)	Description	Date
0101	52	4473	Metal (Fe) nails and unidentified objects	19th - 20th century
0101	1	163	Lead (Pb) fragment	19th - 20th century
0102	21	1376	Metal (Fe) nails and unidentified objects	19th - 20th century
0102	1	981	Metal (Fe) stake	19th - 20th century
0108	35	1545	Metal (Fe) nails, bars and rings	19th - 20th century
0108	1	103	Metal (Cu) machine component	19th - 20th century
0108	1	216	Horseshoe	19th - 20th century
0109	3	19	Metal (Fe) nails and wire	19th - 20th century
0116	1	64	Metal (Fe) wire	19th - 20th century
0116	1	1	Cu alloy wire	19th - 20th century
0127	1	50	Lead (Pb) wire	19th - 20th century
0131	9	218	Metal (Fe) plates	19th - 20th century
0137	1	11	Nail	19th - 20th century
U/S	1	6	Half penny, Victorian	1875
U/S	12	235	Nails & wire (Fe)	19th - 20th century
U/S	1	6	Spoon (Cu)	19th century
U/S	4	129	Musket and pistol ball (Pb)	17th century

The Clay Tobacco Pipe

10.2.10 445 fragments of clay tobacco pipe were collected during the excavation. Fragments of both stem and bowl, including complete bowls were recovered. Where possible, the clay tobacco pipe finds have been dated using bore hole diameter (early clay pipes have a bore diameter of 3mm, decreasing over time until stems by the middle of the 18th century had a bore of less than 2mm). All fragments recovered were of a 17th - 19th century date with forms representing most periods of clay pipe production. The

assemblage is of a good size and range, with several stems and bowls bearing a stamped makers mark and decoration, which would merit further study.

Context	Quantity	Weight (g)	Description	Date range
U/S	48	129	Unmarked stem, one spur with rosette	17th-18th
U/S	3	8	Partial bowls	19th century
0101	72	225	Stems, some with makers mark	17th-19th
0101	9	19	Bowl fragments	19th century
0102	87	224	Unmarked stems inc. mouthpiece	17th-19th
0102	15	56	Bowls, some decoration	17th-19th
0107	6	12	Unmarked stems	17th-19th
0108	154	401	Unmarked stems	17th-19th
0108	2	14	Decorated stem	18th-19th
0108	14	137	Bowls, 4 with makers stamp	17th-19th
0108	2	26	Bowls, produced by Robert Young	1670's
0109	2	5	Unmarked stems	17th-19th
0115	5	9	Unmarked stems	17th-18th
0116	5	11	Unmarked stems	17th-19th
0121	1	1	Bowl fragment, oak leaf design	19th century
0121	8	19	Unmarked stems	17th-19th
0134	2	4	Unmarked stems	17th-19th
0135	2	11	Unmarked stems	18th-19th
0136	2	6	Unmarked stems	17th-19th
0138	1	2	Unmarked stem	17th-19th
0146	2	3	Unmarked stems	18th-19th
0151	3	8	Unmarked stems	17th-18th

The Animal Bone

10.2.11 A total of 382 animal bone specimens were recovered from 17 contexts, with another 166 specimens being un-stratified. The total assemblage of 548 specimens was examined macroscopically and anatomical and species identification was attempted for each fragment. Butchery marks were visible on 5% (N=28) of the assemblage. Most of the assemblage (92%) is represented by domestic species, with the exception of 6.7% (N=37) specimens of oyster and 1% (N=6) being represented by bird bones. Of the domesticates, cow (8.3 % N=46) and sheep (7.2% N=40) make up most of the assemblage. Of the taxonomically unidentifiable species, most specimens belong to medium mammals (33% N = 175), followed by large mammals (25% N = 133). Small mammals make up 14% of the assemblage (N=44). Single specimens have been recovered from fish, roe deer and horse, while dogs and pigs make up 2% and 1% of the assemblage. Given the date of associated material recovered from all 17 contexts, it is likely the assemblage represents the remains of animals consumed on site no earlier than the post-medieval period.

The Stone

10.2.12 A total of undiagnostic 18 fragments of stone (1.42kg) and 21 fragments of slate (0.84kg) were recovered from site.

The Coal

10.2.13 A total of six fragments of coal were recovered from two contexts with a further three unstratified fragments.

Context	Quantity	Weight (g)	Description	Date range
0109	1	2	Coal fragment	Post-Medieval
0121	5	8	Coal fragment	Post-Medieval
U/S	3	2	Coal fragment	Post-Medieval

10.3 2017 Finds

10.3.1 A total of 3511 finds were recovered from the We Dig The Castle 2017 excavation. A table of these can be seen below.

Material	Quantity
Pottery	1128
Animal bone	432
Glass	684
Clay tobacco pipe	314
CBM	262
Metal and Slag	511
Flint	3
Stone	82
Shell	68
Carbon rods	20
Miscellaneous	7

The Pottery

10.3.2 A total of 1128 fragments of pottery weighing 20279g were recovered from the We Dig the Castle excavation in 2017. These ranged in date from the 12th to the 20th century. The assemblage was quantified by two measures: number of sherds and weight, and the resulting archive was recorded in table form. The pottery is stored in three archive boxes which are at present stored at the Trent & Peak Archaeology stores, Chilwell, Nottingham.

Discussion

10.3.3 The pottery assemblage is largely comprised of pottery of a post-medieval date with smaller quantities of medieval pottery scattered across the contexts.

10.3.4 The pottery was fairly evenly scattered across the site with the bulk recovered from layers (0102) and (0123), as well as pit [0130]. As in previous years the bulk of the pottery across all contexts consisted of earthenware plant pots with smaller quantities of other post-medieval pottery forms dating to between the 16th - 20th century. All contexts also contained medieval pottery sherds, ranging in date from the 11th to the 15th century. Given the disturbed nature of the ground the finds are likely to be residual with the pottery assemblage as a whole being representative of a site of medieval origin with later post-medieval development, and as such merits further study.

Pottery finds

Context	Quantity	Weight (g)	Description	Date range
0101	53	293	White bodied earthenware	18th-20th century
0101	58	1449	Coarse Earthenware	17th - 19th century
0101	13	261	Salt glazed stoneware	17th-19th century
0101	1	6	Mocha Ware	19th-20th century
0101	5	36	Cistercian/Black ware	17th-18th century
0101	3	23	Slipware	17th-18th century
0101	1	13	Mottled ware	17th-18th century
0101	1	5	Medieval green glaze	12th-15th century
0101	1	5	Medieval sandy Ware	12th-15th century
0102	26	86	White bodied earthenware	18th-20th century
0102	46	1154	Coarse earthenware	17th-19th century
0102	2	7	Salt glazed stoneware	17th-19th century
0102	1	1	Cistercian/Black ware	17th-18th century
0102	1	1	Mocha Ware	19th-20th century
0102	1	1	Mottled ware	17th-18th century
0102	5	14	Porcelain	18th-19th century
0102	4	11	Medieval green glaze	12th-15th century
0102	1	5	Medieval sandy Ware	12th-15th century
0102	4	9	White bodied earthenware	18th-20th century
0102	1	1	Mottled ware	17th-18th century
0102	2	4	Medieval green glaze	12th-15th century
0102	1	15	Medieval sandy Ware	12th-15th century
0102	7	676	Coarse Earthenware	17th - 19th century
0108	13	79	White bodied earthenware	18th-20th century
0108	9	321	Coarse earthenware	17th-19th century
0108	1	1	Porcelain	18th-19th century
0108	2	28	Midland Purple	15th-16th century
0108	1	2	Cistercian/Black ware	17th-18th century
0108	4	6	Salt glazed stoneware	17th-19th century
0108	5	39	Medieval green glaze	12th-15th century
0109	10	94	White bodied earthenware	18th-20th century
0109	11	195	Coarse Earthenware	17th - 19th century
0109	2	21	Slipware	17th-18th century
0109	2	124	Salt glazed stoneware	17th-19th century
0109	1	47	Midland Purple	15th-16th century
0116	1	1	White bodied earthenware	18th-20th century
0116	1	8	Medieval green glaze	12th-15th century
0118	2	15	Salt glazed stoneware	17th-19th century
0120	18	135	White bodied earthenware	18th-20th century
0120	15	373	Coarse Earthenware	17th - 19th century
0120	2	17	Porcelain	18th-19th century
0120	2	12	Mocha/Yellow Ware	19th-20th century
0120	8	312	Salt glazed stoneware	17th-19th century
0120	1	9	Medieval green glaze	12th-15th century
0121	2	1	White bodied earthenware	18th-20th century
0123	28	98	White bodied earthenware	18th-20th century

0123	14	463	Coarse Earthenware	17th - 19th century
0123	9	58	Tin glazed earthenware	18th-19th century
0123	5	29	Porcelain	18th-19th century
0123	1	4	Mottled ware	17th-18th century
0123	2	15	Mocha/Yellow Ware	19th-20th century
0123	1	14	Salt glazed stoneware	17th-19th century
0123	1	9	Midland Purple	15th-16th century
0123	2	14	Slipware	17th-18th century
0123	7	41	Medieval green glaze	12th-15th century
0123	1	30	Medieval sandy Ware	12th-15th century
0131	16	137	White bodied earthenware	18th-20th century
0131	2	53	Tin glazed earthenware	18th-19th century
0131	177	8888	Coarse Earthenware	17th - 19th century
0131	5	42	Salt glazed stoneware	17th-19th century
0131	2	5	Slipware	17th-18th century
0131	1	3	Midland Purple	15th-16th century
0131	2	47	Mottled ware	17th-18th century
0131	2	17	Porcelain	18th-19th century
0131	6	29	Medieval green glaze	12th-15th century
0131	1	7	Medieval sandy Ware	12th-15th century
0135	1	5	Slipware	17th-18th century
0135	1	5	Salt glazed stoneware	17th-19th century
0135	1	16	Mottled ware	17th-18th century
0135	1	5	Medieval green glaze	12th-15th century
0135	1	3	Medieval sandy Ware	12th-15th century
0137	1	1	Cistercian/Black ware	17th-18th century
0137	2	3	Medieval green glaze	12th-15th century
0137	1	10	Medieval sandy Ware	12th-15th century
0139	2	34	Midland Purple	15th-16th century
0139	1	1	White bodied earthenware	18th-20th century
0139	1	10	Mottled ware	17th-18th century
0139	2	5	Medieval green glaze	12th-15th century
0139	1	1	Medieval sandy Ware	12th-15th century
0142	1	5	Porcelain	18th-19th century
0142	9	32	White bodied earthenware	18th-20th century
0142	5	33	Coarse Earthenware	17th - 19th century
0151	3	17	Medieval green glaze	12th-15th century
0170	2	27	Coarse Earthenware	17th - 19th century
0170	1	13	Midland Purple	15th-16th century
0172	1	7	Slipware	17th-18th century
0180	2	51	Medieval green glaze	12th-15th century
0181	1	14	Salt glazed stoneware	17th-19th century
0181	3	9	Medieval green glaze	12th-15th century
0181	1	6	Medieval sandy Ware	12th-15th century
0182	1	41	White bodied earthenware	18th-20th century
0182	6	77	Coarse Earthenware	17th - 19th century
0182	3	43	Salt glazed stoneware	17th-19th century
0182	1	2	Mocha/Yellow Ware	19th-20th century
0182	1	5	Midland yellow ware	16th-18th century

0182	5	67	Medieval green glaze	12th-15th century
0182	1	9	Medieval reduced ware	12th-15th century
0183	1	7	Medieval sandy Ware	12th-15th century
0191	2	23	Coarse Earthenware	17th - 19th century
0192	2	24	White bodied earthenware	18th-20th century
0192	1	10	Slipware	17th-18th century
0192	2	135	Salt glazed stoneware	17th-19th century
0192	4	40	Mottled ware	17th-18th century
0192	2	56	Coarse Earthenware	17th - 19th century
0200	3	38	Coarse Earthenware	17th - 19th century
0200	6	33	White bodied earthenware	18th-20th century
0200	1	2	White salt glazed stoneware	18th century
0200	1	3	Mocha/Yellow Ware	19th-20th century
0200	1	16	Medieval green glaze	12th-15th century
0203	1	5	Midland yellow ware	16th-18th century
0204	1	3	Cistercian/Black ware	17th-18th century
0204	1	5	Coarse Earthenware	17th - 19th century
0204	10	105	Medieval green glaze	12th-15th century
0204	2	20	Medieval shelly ware	12th-15th century
0209	1	6	Mottled ware	17th-18th century
0209	1	21	Cistercian/Black ware	17th-18th century
0209	2	21	Medieval green glaze	12th-15th century
0210	1	3	Mottled ware	17th-18th century
0210	1	2	White bodied earthenware	18th-20th century
0210	1	2	Salt glazed stoneware	17th-19th century
0210	1	22	Coarse Earthenware	17th - 19th century
0211	3	69	White bodied earthenware	18th-20th century
0211	1	2	Medieval green glaze	12th-15th century
0211	1	4	Medieval sandy Ware	12th-15th century
0224	1	2	Cistercian/Black ware	17th-18th century
0224	1	1	White bodied earthenware	18th-20th century
0224	2	16	Medieval green glaze	12th-15th century
0226	1	67	Coarse Earthenware	17th - 19th century
0227	1	3	Medieval sandy Ware	12th-15th century
0230	2	159	Coarse Earthenware	17th - 19th century
U/S	88	1249	Coarse Earthenware	17th - 19th century
U/S	85	423	White bodied earthenware	18th-20th century
U/S	30	165	Cistercian/Black ware	17th-18th century
U/S	16	108	Midland yellow ware	16th-18th century
U/S	35	284	Salt glazed stoneware	17th-19th century
U/S	12	48	Mottled ware	17th-18th century
U/S	6	46	Midland Purple	15th-16th century
U/S	7	19	Porcelain	18th-19th century
U/S	4	62	Slipware	17th-18th century
U/S	9	16	Tin glazed earthenware	18th-19th century
U/S	2	7	Mocha/Yellow Ware	19th-20th century
U/S	54	332	Medieval green glaze	12th-15th century
U/S	1	30	Medieval shelly ware	11th-15th century
U/S	18	89	Medieval sandy Ware	12th-15th century

The Animal Bone

Dr Kris Poole

- 10.3.5 A total of 432 animal bone and teeth fragments were recorded from WDC3. The remains were recovered from a range of features which have produced finds ranging in date from the medieval period to the 20th century. The medieval pottery was typically residual in later contexts and so it is likely that there has been mixing of bone from different periods as well. This is particularly the case with the more bone-rich contexts, such as ditch fills (0151) and (0182), whilst other contexts contain only later (predominantly 18th and 19th century) finds. This mixing of material and wide date ranges for some contexts negates the interpretive value of the animal remains to a large degree. However, although there was some variation in bone condition within contexts, the majority was in good condition and thus may have, in the main, been of later (probably 18th and 19th century) date.
- 10.3.6 The majority of bone was hand collected (Table 1), but a large number of small fragments (predominantly unidentifiable) were recovered from residues (Table 2). There was limited evidence for gnawing by dogs and a small number of bones showed signs of burning. The main domestic mammals were all represented, with sheep/goat and cattle being the most common, although a number of pig remains were also recovered. Non-food domestic animals, specifically horse and dog, were also present. Another species that was well represented was rabbit, in one case by a partial skeleton (consisting of skull and front half of the body) within layer (0108). Red deer was represented by an antler fragment in layer (0123) and a fragment of skull in ditch fill (0151), which had been sawn through just below the burr for the antler. These finds suggest some onsite antler working, but unfortunately were both recovered from very mixed contexts. A number of bird bones were also recovered, consisting of chicken and goose remains, where species could be determined. An ulna of a small passerine (sparrow-sized) bird and three amphibian bones were retrieved from a residue from ditch fill (0196), providing some information about environment. In addition to these finds, a molar, left mandible and right maxilla of a field vole were found in residues of ditch fill (0182), which contained medieval to modern pottery.
- 10.3.7 Where ageing data was available, the majority of epiphyses had fused, but this only tells us that the particular animals were older than particular dates. In addition, given the small number of elements that could be aged and the lack of tight dating in many contexts, it is not possible to consider dietary practices/husbandry techniques in any case. For the main domesticates, there is some patterning in the body-part data, with bones from the head and teeth, as well as those from the feet, tending to be the most common. This pattern was more noticeable for cattle than for pigs and sheep. There would seem to be a mixture of bones typically associated with primary butchery (or at least poorer cuts of meat) and remains of meals within this assemblage. The latter is particularly represented by the bird and rabbit remains, which consisted of a variety of elements. Butchery of smaller mammals, such as rabbits, and of birds, tends to be more of a kitchen activity than of cattle and sheep.
- 10.3.8 The assemblage shows a similar range of species as the bone recovered in 2015, although cattle were the most frequent species in that assemblage. It seems likely that much of the bone assemblage from WDC3 consists of rubbish dumped onto the castle gardens and allotments, partly as an easy way of disposing of it, but perhaps also to aid

soil fertility. Such remains would likely have come from the households of the tenants and allotment owners using the land at that time.

Hand collected bone by context from WDC3

Context	Cattle	Sheep/goat	Pig	Horse	Dog	Rabbit	Red deer	Chicken	Goose	Bird	Fish	Unidentifiable	Large mammal	Medium mammal	TOTAL
0102	1					1				1		4		8	15
0108		3	3			1					2	11	1	4	25
0120		1	2			1		1				1			6
0121												2			2
0123	2	1	3		1		1	1	2	1		7	1	2	22
0131	2	5	2		3	9						12	7	3	43
0135				1		1						1		1	4
0137		1						1		1	1	21		7	32
0139									1			23	1		25
0142												2			2
0151	1	5					1			1		23		1	32
0172	1														1
0180								1						1	2
0181		1								1		3	1		6
0182	6	1	1	1						1		3	5		18
0183	1	1						1						1	4
0200		1						2	1						4
0204		1	1									7			9
0211	1								1						2
0212															0
0218												1	1		2
0224												4			4
TOTAL	15	21	12	2	4	13	2	7	5	6	3	125	17	28	260

Animal bone from residues, by context

Context	Field Vole	Amphibian	Bird	Large mammal	Medium mammal	Unidentifiable	TOTAL
0135						71	71
0139						20	20
0151						17	17
0182	3			1		20	24
0196		3	1			12	16
0209					1	23	24
TOTAL	3	3	1	1	1	163	172

The CBM, mortar and drain pipe

10.3.9 Total of 77 brick fragments were recovered from eight contexts, with an additional 30 un-stratified fragments. 68 roof tile fragments were recovered from 16 contexts, with a further 35 un-stratified pieces. Nine tile fragments can be dated to the medieval period, but the bulk of the material was un-diagnostic and could only be assigned to a general period of medieval to modern. Mortar was represented by four fragments from three contexts, with a further 13 un-stratified pieces. 32 fragments of modern drain pipe were recovered from nine contexts, with a further three un-stratified fragments. The assemblage also contained 75 unidentifiable post medieval fragments.

Context	Quantity	Weight (g)	Description	Date range
0101	6	21	Brick fragments	Post Medieval
0101	2	42	Tile fragments	Post medieval
0101	5	327	Drain pipe fragments	Post Medieval
0102	1	8	Tile fragment	Post medieval
0102	1	2	Mortar fragment	
0102	2	521	Drain pipe fragments	Modern
0102	23	445	Brick fragments	Post medieval
0102	1	1	Mortar fragment	
0102	1	29	Tile fragment	Post medieval
0102	1	251	Drain fragment	Post Medieval
0102	1	200	Tile fragment	Post Medieval
0108	1	34	Tile fragment	Post Medieval
0108	2	2	Unidentifiable fragments	Post Medieval
0116	23	402	Brick fragments	Post medieval
0116	1	24	Drain pipe fragment	Post Medieval
0120	1	38	Tile fragment	Post Medieval
0123	7	293	Tile fragments	Post Medieval
0123	5	286	Drain pipe fragments	Post Medieval
0129	1	3	Drain pipe fragment	Post Medieval
0129	1	4	Brick fragment	Post Medieval
0129	1	84	Tile fragment	Post Medieval
0131	2	14	Mortar fragments	
0131	10	450	Tile fragments	Post Medieval
0131	17	5656	Brick fragments	Post Medieval
0131	14	9822	Drain pipe fragments	Post Medieval
0137	2	10	Brick fragments	Post Medieval

0139	1	55	Glazed tile fragment	Medieval
0139	3	52	Tile fragments	Post Medieval
0142	1	97	Brick fragment	Medieval
0142	2	74	Drain pipe fragment	Post Medieval
0151	10	148	Tile fragments	Post Medieval
0170	3	22	Unidentifiable fragments	Post Medieval
0172	1	21	Tile fragment	Post Medieval
0180	1	71	Glazed tile fragment	Medieval
0181	8	217	Tile fragments	Post Medieval
0182	2	144	Tile fragments	Post Medieval
0200	1	35	Drain pipe fragment	Post Medieval
0200	4	56	Brick fragments	Post Medieval
0204	18	393	Tile fragments	Post Medieval
U/S	7	136	Tile fragments	Medieval
U/S	70	87	Unidentifiable fragments	Post Medieval
U/S	30	376	Brick fragments	Post Medieval
U/S	28	272	Tile fragments	Post Medieval
U/S	3	83	Drain pipe fragment	Post Medieval
U/S	13	157	Mortar fragments	

The Clay Pipe

10.3.10 314 fragments of clay tobacco pipe were collected during the excavation. Fragments of both stem and bowl, including complete bowls were recovered. Where possible, the clay tobacco pipe finds have been dated using bore hole diameter (early clay pipes have a bore diameter of 3mm, decreasing over time until stems by the middle of the 18th century had a bore of less than 2mm). All fragments recovered were of a 17th - 19th century date with forms representing most periods of clay pipe production. The assemblage is of a good size and range, with several stems and bowls bearing a stamped makers mark and decoration, which would merit further study.

Context	Quantity	Weight (g)	Description	Date range
0058	4	4	Stem fragments	17 th – 18 th C.
0058	1	4	Stem fragment	18 th – 19 th C.
0101	3	20	Bowl s and bowl fragments with heels	17 th – 18 th C.
0101	1	7	Partial bowl fragment with stem	18 th – 19 th C.
0101	2	6	Partial bowl fragments, one with milling and	17 th – 18 th C.
0101	1	1	Bowl fragment	18 th – 19 th C.
0101	1	7	Stem with partial bowl, plant decoration and	18 th – 19 th C.
0101	9	24	Stem fragments	17 th – 18 th C.
0101	9	20	Stem fragments	18 th – 19 th C.
0101	1	4	Decorated stem fragment, cross design	18 th – 19 th C.
0102	1	1	Bowl fragment	17 th – 19 th C.
0102	2	5	Decorated bowl fragments with leaf design, one with spur	18 th – 19 th C.
0102	1	3	Stem fragment	17 th – 18 th C.
0102	12	25	Stem fragments	18 th – 19 th C.

0102	1	4	Bowl fragment, milled rim and heel	17 th – 18 th C.
0102	9	21	Stem fragments	17 th – 18 th C.
0102	2	5	Stem fragments	18 th – 19 th C.
0108	1	14	Bowl with heel	17 th – 18 th C.
0108	1	1	Bowl fragment with milled rim	17 th – 18 th C.
0108	1	8	Bowl with partial milled rim and spur	17 th C.
0108	1	13	Bowl with spur and stamp	17 th – 18 th C.
0108	1	3	Bowl fragment with spur	18 th – 19 th C.
0108	8	19	Stem fragments	17 th – 18 th C.
0108	6	28	Stem fragments	18 th – 19 th C.
0109	1	1	Stem fragment	17 th – 18 th C.
0109	1	4	Stem fragment	18 th – 19 th C.
0116	2	3	Stem fragments	18 th – 19 th C.
0120	1	5	Stem fragment	17 th – 18 th C.
0120	4	11	Stem fragments	18 th – 19 th C.
0121	2	3	Stem fragments	18 th – 19 th C.
0123	2	10	Bowl with spur, in two pieces	18 th – 19 th C.
0123	3	4	Stem fragments	17 th – 18 th C.
0123	13	43	Stem fragments	18 th – 19 th C.
0129	2	3	Stem fragments	17 th – 18 th C.
0129	3	3	Stem fragments	18 th – 19 th C.
0131	2	13	Bowl with spur, milled rim, and stamp. In two pieces	18 th C.
0131	2	3	Bowl fragments	18 th – 19 th C.
0131	1	4	Stem fragment with spur	18 th – 19 th C.
0131	5	21	Stem fragments	18 th – 19 th C.
0135	1	11	Bowl with milled rim and heel	17 th C.
0135	1	9	Partial bowl with heel	17 th C.
0135	1	3	Bowl fragment	17 th – 19 th C.
0135	2	6	Stem fragments	18 th – 19 th C.
0137	1	4	Bowl fragment with milled rim and heel	17 th C.
0137	2	5	Stem fragments	17 th – 18 th C.
0139	1	2	Bowl fragment	17 th – 19 th C.
0139	2	5	Stem fragments	17 th – 18 th C.
0139	2	5	Stem fragments	18 th – 19 th C.
0142	1	2	Stem fragment	17 th – 18 th C.
0151	4	10	Stem fragments	17 th – 18 th C.
0151	1	1	Stem fragment	17 th – 19 th C.
0174	1	3	Stem fragment	18 th – 19 th C.
0180	2	6	Stem fragments	17 th – 18 th C.
0180	1	3	Stem fragment	18 th – 19 th C.
0181	3	4	Stem fragments	17 th – 18 th C.
0181	2	6	Stem fragments	18 th – 19 th C.
0181	1	1	Stem fragment	17 th – 19 th C.
0182	1	1	Bowl fragment, image of a horse or unicorn.	18 th – 19 th C.
0182	2	11	Stem fragment	17 th – 18 th C.
0182	4	20	Stem fragments	18 th – 19 th C.
0191	1	2	Stem fragment	18 th – 19 th C.

0209	1	1	Bowl fragment with milled rim	17 th – 18 th C.
0209	1	13	Bowl with spur and stamp	17 th – 18 th C.
0209	1	4	Nib with decoration	18 th – 19 th C.
0209	6	20	Stem fragments	17 th – 18 th C.
0209	4	14	Stem fragments	18 th – 19 th C.
0204	1	1	Bowl fragment	17 th – 19 th C.
0204	2	2	Stem fragments	17 th – 18 th C.
0211	1	10	Bowl with milled rim and spur	17 th – 18 th C.
0211	1	2	Stem fragment	18 th – 19 th C.
0218	1	2	Bowl fragment	17 th – 19 th C.
0224	1	5	Stem with spur	18 th – 19 th C.
0224	1	2	Stem fragment	18 th – 19 th C.
0226	1	2	Bowl fragment with spur	17 th – 18 th C.
0226	2	4	Stem fragments	17 th – 18 th C.
0230	1	16	Bowl with spur and partial milled rim	17 th C.
U/S	1	5	Stem fragment	18 th – 19 th C.
U/S	1	10	Bowl with heel and milled rim	17 th – 18 th C.
U/S	2	6	Heel fragments	17 th – 18 th C.
U/S	1	3	Stem fragment with heel	17 th – 18 th C.
U/S	1	9	Bowl with spur, milled rim, and stamp	17 th – 18 th C.
U/S	1	3	Bowl fragment with spur	17 th – 18 th C.
U/S	1	10	Bowl with spur and stamp	17 th – 18 th C.
U/S	19	20	Bowl fragments	18 th – 19 th C.
U/S	1	1	Bowl fragment with milled rim	17 th – 18 th C.
U/S	1	1	Bowl fragment with milled rim and maker's	17 th – 18 th C.
U/S	46	117	Stem fragments	17 th – 18 th C.
U/S	45	112	Stem fragments	18 th – 19 th C.
U/S	9	7	Stem fragments	17 th – 19 th C.

The Metal

10.3.11 A total of 313 objects were recovered from 24 contexts, with a further 198 objects being un-stratified. All of the finds are post-medieval in date with the exception of the lead/lead alloy gaming token which is modern. The majority of the assemblage comprised of nails and nail fragments which were heavily corroded. All 114 fragmentary finds from context 0131 related to an identifiable ferrous bucket from the same context. An un-stratified chisel was identified, which had an approximately square section at the proximal end and was beaten to a rectangular section at the distal end. Some lead sheeting and scrap were found, although there were no distinguishing marks on the sheeting. A total of 3 dressmaking pins, and 2 further copper alloy pins were identified.

Context	Quantity	Mass (g)	Description	Date
0058	1	3	Lead drip	Post-Medieval
0101	3	54	Nails (Fe)	Post-Medieval
0101	6	196	Sheet metal	Post-Medieval
0101	2	174	Band fittings	Post-Medieval

0102	31	210	Nails (Fe)	Post-Medieval
0102	3	651	Iron bands	Post-Medieval
0102	3	26	Fuel ash slag	Post-Medieval
0102	1	1	Lead scrap	Post-Medieval
0102	1	1	Ferrous fragment	Post-Medieval
0102	1	2	Lead scrap	Post-Medieval
0102	2	19	Fuel ash slag	Post-Medieval
0108	1	2	Ferrous fragment	Post-Medieval
0108	2	1	Dressmaking pins	Post-Medieval
0108	3	67	Nails (Fe)	Post-Medieval
0109	3	63	Nails (Fe)	Post-Medieval
0116	3	174	Slag (non-diagnostic)	Post-Medieval
0123	3	897	Lead (Pb) sheet	Post-Medieval
0123	7	194	Ferrous fragment	Post-Medieval
0123	8	122	Nails (Fe)	Post-Medieval
0123	1	110	Bolt (Fe)	Post-Medieval
0123	2	8	Fuel ash slag	Post-Medieval
0129	1	35	Iron bar	Post-Medieval
0129	1	13	Fuel ash slag	Post-Medieval
0131	36	369	Nails (Fe)	Post-Medieval
0131	12	488	Bucket fragments (Fe)	Post-Medieval
0131	114	996	Ferrous fragment	Post-Medieval
0131	10	196	Slag (non-diagnostic)	Post-Medieval
0131	1	7	Hook (Fe)	Post-Medieval
0131	1	23	Lead (Pb) object	Post-Medieval
0131	1	417	Ferrous object	Post-Medieval
0137	1	56	Lead (Pb) fragment	Post-Medieval
0139	1	1	Fuel ash slag	Post-Medieval
0142	1	1	Nail (Fe)	Post-Medieval
0151	1	5	Nail (Fe)	Post-Medieval
0172		7	Magnetic composition from environmental sample 15	Post-Medieval
0180	1	256	Ferrous fragment	Post-Medieval
0180	1	119	Ferrous object	Post-Medieval
0180	1	10	Fuel ash slag	Post-Medieval
0181	1	4	Nail (Fe)	Post-Medieval
0181	1	1	Dressmaking pin	Post-Medieval
0182	2	1	Pins (Cu Alloy) from environmental sample 4	Post-Medieval
0191	1	1	Copper (Cu) rivet	Post-Medieval
0191	11	69	Fuel ash slag	Post-Medieval
0192	1	9	Nail (Fe)	Post-Medieval
0200	2	34	Nail (Fe)	Post-Medieval
0200	1	67	Bolt (Fe)	Post-Medieval
0200	2	11	Slag (non-diagnostic)	Post-Medieval
0204	3	18	Nail (Fe)	Post-Medieval
0204	2	17	Slag (non-diagnostic)	Post-Medieval
0209		13	Magnetic composition from	Post-Medieval

0210	1	10	Lead (Pb) scrap	Post-Medieval
0211	1	1	Nail (Fe)	Post-Medieval
U/S	1	44	Ferrous object	Post-Medieval
U/S	103	650	Nail (Fe)	Post-Medieval
U/S	70	482	Ferrous fragment	Post-Medieval
U/S	1	208	Chisel (Fe)	Post-Medieval
U/S	2	199	Iron bar	Post-Medieval
U/S	1	11	Iron wire	Post-Medieval
U/S	1	2	Lead (Pb) / lead alloy token	Modern
U/S	1	3	Button (Cu Alloy)	Post-Medieval
U/S	7	64	Fuel ash slag	Post-Medieval
U/S	11	70	Slag (non-diagnostic)	Post-Medieval
U/S	1	31	Blade (Fe)	Post-Medieval
U/S	5	187	Lead (Pb) Fragments	Post-Medieval

The Glass

10.3.12 A total of 684 glass fragments weighing 6025g were recovered. Of these 399 came from 21 contexts with the remaining 287 being un-stratified. The bulk of the glass finds were made up of modern window glass, frosted and clear, with post medieval and modern bottle fragments forming the rest of the assemblage.

Context	Quantity	Weight (g)	Description	Dating
062	1	1	Green bottle fragment	19th - 20th century
0101	1	2	Window fragment with blue	19th - 20th century
0101	7	63	Dark and pale blue bottle glass	19th - 20th century
0101	4	21	Green bottle fragments	19th - 20th century
0101	1	1	Brown bottle fragment	19th - 20th century
0101	32	157	Window fragments	19th - 20th century
0101	55	1410	Frosted window fragments	19th - 20th century
0102	11	476	Green bottle fragments	18th - 20th century
0102	13	110	Mineral bottle fragments	19th - 20th century
0102	22	43	Window fragments	19th - 20th century
0102	8	30	Window fragments	19th - 20th century
0102	2	19	Green bottle fragments,	19th - 20th century
0108	1	8	Clear medicine bottle rim	19th - 20th century
0108	5	45	Mineral bottle fragments	19th - 20th century
0108	1	1	Blue opaque fragment	19th - 20th century
0108	22	79	Window fragments	19th - 20th century
0116	5	6	Window and bottle fragments	19th - 20th century
0120	12	83	Window and bottle fragments	19th - 20th century
0123	5	686	Green bottle bases and fragments	19th - 20th century
0123	22	38	Window and bottle fragments	19th - 20th century
0123	3	19	Pale and dark blue bottle fragments	19th - 20th century
0123	18	591	Frosted window fragment	19th - 20th century
0123	1	5	Jar rim fragment	19th - 20th century
0129	10	313	Bottle fragments	19th - 20th century
0129	1	5	Green bottle fragment	19th - 20th century
0129	18	43	Window fragments	19th - 20th century

0131	8	199	Lea and Perrins bottle fragments	19th – 20th century
0131	37	121	Window and bottle fragments	19th – 20th century
0131	3	43	Green bottle fragments	19th – 20th century
0131	1	1	Blue bottle fragment	19th – 20th century
0137	1	1	Green bottle fragment	19th – 20th century
0142	4	22	Window fragments	19th – 20th century
0142	1	18	Green bottle fragment	19th – 20th century
0145	5	242	Green bottle fragments	19th – 20th century
0145	1	4	Pale blue bottle fragment	19th – 20th century
0145	36	179	Window and bottle fragments	19th – 20th century
0151	3	2	Window fragments	19th – 20th century
0180	1	1	Window fragment	19th – 20th century
0182	1	13	Pale blue bottle fragment	19th – 20th century
0182	1	5	Green bottle fragment	19th – 20th century
0192	5	20	Window and mineral bottle	19th – 20th century
0209	1	1	Bottle fragment	19th – 20th century
0200	1	2	Window fragment	19th – 20th century
0200	1	4	Dark blue bottle fragment	19th – 20th century
0200	1	14	Green bottle base fragment	19th – 20th century
0204	4	1	Window fragments	19th – 20th century
U/S	3	108	Dark blue bottle fragments, made	19th – 20th century
U/S	1	5	Dark blue bottle fragment	19th – 20th century
U/S	1	2	Brown bottle fragment	19th – 20th century
U/S	2	2	White opaque fragments	19th – 20th century
U/S	1	1	Bottle fragments	19th – 20th century
U/S	29	124	Green bottle fragments	19th – 20th century
U/S	23	100	Mineral bottle and window	19th – 20th century
U/S	7	145	Frosted window and window	19th – 20th century
U/S	220	390	Window and bottle fragments	19th – 20th century

The Shell

10.3.13 A total of 68 fragments of marine shell were collected from 11 contexts on the site, weighing 334g. The bulk of the assemblage consisted of oyster shell fragments, with smaller quantities of mussel, edible crab, and cockle also being present. A small fragment of coral was also collected, presumably used as a garden decoration.

Context	Quantity	Weight (g)	Description	Date range
0101	6	74	Oyster Shells fragments	
0101	1	2	Cockle shell fragment	
0102	1	1	Oyster shell fragment	
0108	1	2	Mussel shell fragment	
0123	3	13	Oyster shells fragments	
0131	1	4	Coral fragment	
0131	18	8	Crab shell fragments	
0131	6	25	Oyster shell fragments	
0142	1	5	Oyster shell fragment	
0182	2	1	Oyster shell fragments	
0209	1	1	Oyster shell fragment	
0200	1	14	Oyster shell fragment	
0204	1	4	Oyster shell fragment	

0210	1	6	Oyster shell fragment	
U/S	4	18	Cockle shells	
U/S	19	154	Oyster shell fragments	

Carbon rods

10.3.14 20 fragments of carbon rod were collected from five contexts, with a further two un-stratified fragments. These range in width from 17mm to 4mm and can be dated to the 19th – 20th centuries, possibly from the search light trucks used in the early 20th century.

Context	Quantity	Weight	Description	Date range
0109	1	2	Carbon rod	19 th – 20 th century
0116	7	80	Carbon rods	19 th – 20 th century
0120	4	85	Carbon rods	19 th – 20 th century
0123	6	55	Carbon rods	19 th – 20 th century
0129	2	16	Carbon rods	19 th – 20 th century
U/S	2	2	Carbon rods	19 th – 20 th century

The Stone

10.3.15 82 pieces of stone were collected, weighing 9312g. Of these, 43 pieces were fragments of slate, weighing 2067g. Many of have nail holes, and are likely to have been used as roofing slates, suggesting a post medieval date.

The Flint

10.3.16 Two pieces of flint were recovered from two contexts on site, with a further one un-stratified fragment. A worked core was collected from context (0123) and a fragment was collected from (0151). The un-stratified fragment is a flake which shows signs of working.

Miscellaneous

10.3.17 A few other finds, which do not fit into the categories above, were also collected on the site. These include pen knives and handles, buttons, a marble, and a modern plastic wine cork.

Context	Quantity	Weight	Description	Date range
0151	1	41	Pen knife with bone handle	Post Medieval
U/S	1	16	Carved bone pen knife handle	Post medieval
0123	1	13	Fuse rope fragment	Post Medieval
U/S	1	5	Glass button	Post Medieval
U/S	1	2	Bone button	Post Medieval
U/S	1	10	Plastic wine cork	Modern
0153	1	5	Ceramic marble	Post medieval

10.4 2018 Finds

By Rosemary Hughes and Alison Wilson

10.4.1 Three test pits were excavated within the Outer Bailey of Nottingham Castle during the 2018 season of We Dig the Castle. A total of 72 finds, recorded by spit, were collected.

Test Pit 03

Material	Quantity
Pottery	9
Clay pipe	2
Shell	2

Table 1: Quantification by material type for test pit 3

Pottery

10.4.2 A total of nine fragments of pottery were recovered from test pit 03, ranging in date from the 12th – 20th century.

10.4.3 A single unstratified sherd of 12th-14th century Nottingham Green Glazed rim sherd (AYH) was recovered.

10.4.4 A sherd of 19th -20th century Mocha Ware (AWJ) was recovered from spit 2 (0.2 – 0.4m).

10.4.5 Six sherds of pottery were recovered from spit 3 (0.4-0.6m); 2 fragments of late 17th – 19th century Salt Glazed Stoneware (AWN), Two body fragments of 18th – 20th century blue transfer printed White Bodied Earthenware (AWO), one body fragment of 19th century sponge decorated white bodied earthen ware (AWO) and a single body sherd of 18th – 20th century plain White Bodied Earthenware (AWO).

10.4.6 Spit 4 (0.6-0.8m) contained a single 17th – 18th century Slipware rim fragment (AWM).

Clay pipe

10.4.7 Two partial fragments of clay pipe stem (AWH, AWI) were recovered from test pit 03, both from spit 3. In the absence of any identifying features, bore hole diameters were used to date the stems to the 17th – 18th century (early clay pipes have a bore diameter of 3mm, decreasing over time until stems by the middle of the 18th century had a bore of less than 2mm).

Shell

10.4.8 Two oyster shells (AWE, AWD) were recovered from test pit 03, spit 3 (0.6-0.8m).

Discussion

10.4.9 The bulk of the finds from this trench dated to the 17th – 20th century; the unstratified fragment of Green Glaze pottery was likely to be residual.

Test Pit 04

Material	Quantity
Pottery	16
Ceramic building material	1
Clay pipe	6

Table 2: Quantification by material type for test pit 4

Pottery

10.4.10 A total of 16 fragments were collected from test pit 04.

10.4.11 Six body fragments of 18th – 20th century White Bodied Earthenware (AVP), 1 decorated with a blue transfer print, were recovered from spit 1 (0.02m).

10.4.12 10 sherds of pottery were recovered from spit 2 (0.2-0.4m). These consisted of a 17th – 19th century Coarse Earthenware body sherd (AVV), two fragments of 17th – 19th century Salt Glazed Stoneware (AVU), six fragments of White Bodied Earthenware (AVT); two rims and two bodies were decorated with a blue transfer print or 'willow pattern' while the other two fragments were white glazed and ribbed. A single body sherd of 19th – 20th century Yellow Ware (AVW) was also recovered from spit 2.

Ceramic building material

10.4.13 A single fragment of possible medieval roof tile was recovered from test pit 04, spit 2 (0.2 – 0.4m).

Clay pipe

10.4.14 Six fragments of clay pipe were recovered from test pit 04; 5 partial stems and 1 fragment of bowl. In the absence of any markings or other identifiable features, these fragments were dated to the 17th – 19th century using bore hole diameters.

10.4.15 Three partial stems and one bowl fragment were collected from spit 1 (0-0.2m) (AVN).

10.4.16 Two partial stem fragments (AVO) were recovered from spit 2 (0.2-0.4m).

Discussion

10.4.17 The earliest fragment from test pit 04 was the piece of ceramic building material, which possibly belonged to the medieval period. The remaining material, both pottery and clay tobacco pipe, dated to the 17th – 20th century.

Test pit 05

Material	Quantity
Pottery	32
Clay pipe	3

Carbon rod	1
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Table 3: Quantification by material type for trench 5

Pottery

10.4.18 A total of 32 pieces of pottery were recovered from trench 05.

10.4.19 17 pottery sherds were recovered from spit 1 (0-0.2m). There were nine fragments of Coarse Earthenware (AWX), dating to the 17th – 19th century, these included unglazed plant pots. There were also six sherds of late 17th – 19th century Salt Glazed Stone Ware (AWZ), including part of a white marmalade jar. The remaining four fragments recovered from spit 1 were sherds of White Bodied Earthenware (AWW), produced in the 18th – 20th century.

10.4.20 10 pottery sherds were recovered from spit 2 (0.2-0.4m). The earliest of these was a sherd of 17th – 18th century Slipware (AXA). A body fragment of Mottled Ware (AXB), dating to the late 17th to 18th century was also recovered while three fragments of Coarse Earthenware (AXD) took the assemblage into the 19th century. Spit 2 also contained two fragments of Salt Glazed Stone Ware (AXF), two sherds of White Bodied Earthenware (AXE), and a single fragment of 19th – 20th century Yellow Ware (AXC).

10.4.21 Three fragments of pottery were recovered from test pit 05 spit 4 (0.6-0.8m), base fragments of salt glazed stone ware (AKN) and two pieces of White Bodied Earthenware (AKP).

Clay pipe

10.4.22 A total of three partial clay pipe stems were recovered from test pit 05, spits 1, 2 and 4. All of the stems had borehole diameters of 2mm, giving an 18th – 19th century.

Carbon Rod

10.4.23 A single 19th – 20th century carbon rod fragment (AWS) was recovered from test pit 05 spit 1.

Discussion

10.4.24 The assemblage of finds recovered from test pit 05 suggested a period of activity from the 17th to the 20th century.

11 ARCHAEOBOTANICAL REMAINS

Tina Roushannafas

11.1 Methodology

- 11.1.1 As part of the environmental sampling strategy, a total of 19 samples were taken from selected contexts within Area 4 in 2017 and two samples in 2016. The sample size was 40 litres where possible, although 10 litre samples were taken when features were too small for full sampling.
- 11.1.2 Samples were processed on site by the trainees under the supervision of TPA staff. The flots were then taken back to the TPA office to dry out.
- 11.1.3 Samples from seven contexts excavated over the course of WDC2 and WDC3 were rapidly assessed for charred plant remains. Trough (0135)/[0134] and ditch (0139)/[0138] from WDC2 were assessed. The contexts examined from WDC3 were as follows: gully (0058)/[0057], ditch (0150)/[0151], ditch (0196)/[0195], trough (0204)/[0205] and post hole (0217)/[0218].
- 11.1.4 Up to 40 litres of soil from each context were machine-floated through a 0.5mm mesh and the flot collected in a 0.25mm mesh, with residues also retained for hand-sorting. The flots were separated into fractions using graded sieves of 2mm, 1mm and 0.25mm to aid the sorting process. Due to the large volume of the flots, an appropriate percentage of the flot was sorted proportionate to time requirements. As such, the final sorted proportion for each sample was equivalent to 10–20 litres of processed soil. The residues were similarly divided into fractions of >1cm, >2mm and >0.25mm and were fully sorted.
- 11.1.5 The rapid assessment did not comprise detailed identification work. Identifications were made with the assistance of personal reference material, Jacomet (2006) and Cappers, Bekker & Jans (2012). Nomenclature is based on Jacomet (2006) for cereals and Stace (2010) for other plant types. Where identifications are uncertain the abbreviation 'cf.' (*confer* or 'compares favourably with') is used. Grass seeds (*Poaceae*) were divided into two classes based on diameter (>1.5mm or <1.5mm). Full results are presented in the Table below.

11.2 Results

- 11.2.1 Processing of the samples produced large volume flots which were in most cases predominantly composed of unidentifiable clinkered charred material. Roots of up to 5mm diameter also formed a prominent component of the flots, reflecting some disturbance of sub-surface deposits by trees and vegetation at the site.
- 11.2.2 Charcoal was present in varying quantities with all samples, and was generally present in high quantities with the exception of contexts (0151) and (0217). Larger fragments (>4mm) were present within the charcoal-rich samples (measuring up to 130mm x 90mm x 50mm in context (0135)), as well as occasional pieces of roundwood.
- 11.2.3 Individual charred plant remains were present in low quantities across the samples, with seven seeds recovered from context (0196) being the largest number recovered from one sample and no charred plant remains recovered from either (0135) or (0217). The majority of seeds derived from the *Poaceae* (grass) family, including a single seed of probable *Lolium* (ryegrass). Two cereal grains were recovered: an indeterminate grain from context (0196) and a single wheat grain from context (0135). This is most likely to be a free-threshing wheat (*aestivum/turgidum*) but its morphology is slightly atypical in regards to the proportion of depth to length and width, and its identification

is for this reason uncertain. The state of preservation of the charred seeds varied, with several surviving only in incomplete, and therefore unidentifiable, form.

11.3 Discussion

- 11.3.1 In terms of identifiable individual plant parts, the samples proved to be very limited and indicated little potential for further analysis. The number of roots within the flots would also seem to indicate bioturbation with the potential to have disturbed and displaced small plant remains. The appearance of the flots, which were chiefly composed of charred clinkered material of varying composition, suggests the burning of mixed refuse at high temperatures. The presence of this material results in high-volume flots which are time-consuming to sort and further sampling should be carefully implemented with this in mind. While charcoal was present in smaller quantities, it was nevertheless abundant and the presence of larger fragments and roundwood would indicate the potential for both anthracological (e.g. species) analysis and radiocarbon dating.

11.4 References

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Archaeobotanical results table - Results (indet= indeterminate) x= 1–10, xx=11–50, xxx= 50–100, xxxx=100-250, xxxxx= 250+

			WDC2 (0135) 'Trough' [0134]	WDC2 (0139) Ditch [0138]	WDC3 (0058) Garden feature [0057]	WDC3 (0150) Ditch [0151]	WDC3 (0196) Ditch [0195]	WDC3 (0204) Ditch /trough [0205]	WDC3 (0218) Posthole [0217]
			20 litres	10 litres	10 litres	10 litres	20 litres	10 litres	10 litres
Cereal	<i>Triticum aestivum/turgidum</i> cf.	Wheat cf. free-threshing	1						
		Grain (indeterminate)					1		
Weed /Wild	<i>Caryophyllaceae</i>		1						
	<i>Chenopodium</i>	Goosefoot					1		
	<i>Galium</i>	Bedstraw					1		
	cf. <i>Lolium</i>	Ryegrass					1		
	<i>Poaceae</i> (>1.5mm)	Grass			2		1		
	<i>Poaceae</i> (<1.5mm)	Grass				1	2	2	
	Other (fragment)		1						
Charcoal		Fragments >2mm	xxxxx	xxxx	xxxx	xx	xxxxx	xxxxx	x

12 DISCUSSION AND INTERPRETATION

12.1 Overview

- 12.1.1 Features of a similar shape, size, location and orientation within Area 04 were grouped together in the results above so that, even though individual relationships between features could not be established, potential relationships between groups of features could be discussed here. However, it is possible that most of the features within Area 04 were backfilled at the same time, suggesting a reason as to why relationships between features were so difficult to reveal, and therefore making the features contemporary.
- 12.1.2 The steep and flat profiles of the larger ditches, the regularity of the gullies and the sub-angular shape of the trough features could suggest that there had once been structure present, such as a wooden platform, with some of the ditches thought to be beam slots. However as there is no evidence for this, features have remained grouped and, by cross referencing the historical background with the features, finds and layers excavated, a sequence of phases can be suggested (Figure 28 and 64).

12.2 Phase One: Pre Ducal Palace activity

- 12.2.1 Curvilinear feature [0179], cut through by all other features identified within Area 04, is believed to be the earliest feature identified on site. More investigation will need to be undertaken on this feature to determine whether this is the case.
- 12.2.2 The presence of undisturbed archaeological stratigraphy at a depth of c. 1.8m, in an area where bedrock is expected to be far in excess of c. 2.5m below the modern ground surface, strongly argues for the presence of earlier deposits surviving below this horizon and remaining to be investigated during any future excavations within this area.

12.3 Phase Two: Formal gardens of the Ducal Palace

- 12.3.1 There is the potential for a small number of the cut features identified within Area 04 to relate to the original layout of formal gardens at the time of the construction and/or occupation of the Ducal Palace in the late 17th century, for example, the rounded pit below rubbish pit [0130]. Examples of how these gardens may have looked can be found on Plates 67 and 69.

12.4 Phase Three: Changes in Ducal palace garden use and arrangement

- 12.4.1 Considering the evidence provided by images and maps from 1707, 1714 and 1744, the rest of the features found at a depth of 1.8m are likely to relate to the changes in layout in the garden area during the 18th century. According to the evidence provided within the Historic Background section above, the Castle grounds changed between planned gardens and parkland over the century, as was the fashion of the day due to the works of Capability Brown (Taylor, 1983); however it does not specify whether this relates to the Outer Bailey area.
- 12.4.2 The prospect of Nottingham from the East in 1707 (Figure 3) and Badder and Peat's map of 1744 (Figure 5) both show the Outer Bailey to be divided into rows of planting. The system of gullies [0057], [0059], [0061], [0132], [0136], [0146], [0171], [0173], [0185] and [0188] are orientated down the slope of the hill in the same direction as the vegetation seen in the prospect and Badder and Peat's map. They therefore must relate to this change in fashion and garden arrangement, as the images suggest a loss in formality. The gullies seem to be the earliest of the ditch and trough features and may have been used for drainage.

- 12.4.3 The four linear features [0184], [0186], [0195] and [0240] found in the northeast corner of Area 04 could indicate a change in direction of the rows of planting during this time. As to whether these rows are crop or pleasure orientated, it is hard to determine; however, Plates 68 and 70 show examples of formal kitchen gardens and flower gardens, which are similar in layout.
- 12.4.4 Deering, writing in the 1740s, describes the kitchen gardens being located at the foot of the castle rock, between Brewhouse Yard and the Western Passage cave. Badder and Peat's map of 1744 shows gardens at that location. During the 1720's, it became increasingly common to move kitchen gardens associated with great houses out of the immediate vicinity, and even hidden from view (Taigel and Williamson, 1993), suggesting a reason for the change in layout within the Outer Bailey, as the kitchen gardens may have been relocated.

12.5 Phase Four: Castle and gardens tenancy

- 12.5.1 During the later 18th and early 19th centuries the Castle and gardens were leased out to tenants. The round edged trough features [0055], [0134], [0155], [0157], [0159], [0161], [0163], [0165], [0197] and [0205] may indicate this division of the garden as they were only found within the south-eastern part of Area 04 and may indicate the use of the site as an early allotment or town garden. The presence of a fox den to the north of these features, although potentially higher in the stratigraphical sequence, may indicate the presence of an earlier boundary, which could date to this period, which was still present during phase five. Linear features [0138] and [0150] may also be a part of this phase, however they seem to cut through troughs [0197] and [0159] and therefore must be at the latter stages of this phase.
- 12.5.2 If the trough and linear features are found to be of an earlier date, it is possible that these features could have been used to grow liquorice (Angela Stafford and Keith Fisher, Throroton Society of Nottinghamshire, Pers. Comm. 2017), Liquorice was also mentioned by Holland Walker, when writing about Nottingham Park –

In this soil was grown liquorice and considerable quantities of hemp which was made into whipcord.

J. Holland Walker (1928a)

12.6 Phase Five: Abandonment

- 12.6.1 Overlaying the evidence of formalised planting arrangements in the gardens of the Ducal Palace a c. 30cm deep deposit of undisturbed humic material (0108), consistent with the accumulation of topsoil or other colluviated material was discovered. This deposit was interpreted as resulting from the abandonment of the site after the Reform Riots of 1831, leading to the transformation of the Outer Bailey into a space rented out and used for allotments.

12.7 Phase Six: Allotments of the 19th century

- 12.7.1 Immediately overlaying the band of humic material interpreted as representing a period of abandonment, was a layer identified as a former topsoil horizon (0102).
- 12.7.2 This deposit exhibited distinct morphological characteristics, demonstrating agricultural practices. The presence of a series of regularly-spaced, north to south aligned furrows [0103], [0104] and [0105] strongly argue for the cultivation of potatoes during this period. The archaeological evidence therefore suggests that the area was in use as an allotment. The remains of potential allotment structure [0231], [0238] and [0239] within the northeast of the site provided more evidence for the use of the site as allotments during this time, however no evidence was uncovered to determine when this layout fell out of use. Square brick structure [0126] could be interpreted as a

step relating to structures [0231], [0238] and [0239], however its true relationship with these is still unknown.

- 12.7.3 Material recovered from this horizon was largely dated to the 19th century.
- 12.7.4 The archaeological interpretation of this phase is supported by Jackson's map of 1861 and the first edition OS map of 1880 which shows the Outer Bailey divided into a series of small gardens or allotments during the mid to late part of the 19th century (Figure 8).

12.8 Phase Seven: Modern use and landscaping

- 12.8.1 Overlying the evidence for allotments, deposits consistent with substantial landscaping were recorded. The uppermost layers excavated included significant quantities of redeposited material, used to build up the ground level.
- 12.8.2 The most discernible archaeological feature within this horizon was the loose brick surface recovered in Test Pits 03 and 04, and found overlaying the potential allotment remains in Area 03. During the Second World War, searchlights were placed within the castle grounds in order to aid the anti-aircraft gun that was set up within the Middle Bailey. Searchlights were also used during the coronation of King George VI in 1937 in order to light up the castle in celebration. The surface could have been laid down during either of these events.
- 12.8.3 One other significant feature within this horizon was the base of an iron post, possibly relating to a signpost or other type of furniture installed as the grounds were landscaped in the late-19th century.
- 12.8.4 During the late 19th and early 20th century, the castle grounds and walls underwent a scheme of landscaping and remodelling. Comparing the 1880 1st Edition Ordnance Survey plan with the present configuration, there are many possible sources for the origin of the material comprising the made ground observed within the excavation area (Figure 6). Within the immediate locality, a possible candidate for this material may be the bandstand which lay c. 15m to the southwest of the excavation area. Constructed in c.1910 the bandstand includes a cellar measuring approximately 8m x 8m x 2m. The excavation of which would have produced a considerable amount of up-cast material providing a potential source for the mixed deposit observed during the archaeological excavation.
- 12.8.5 Service-trenches, modern and early-20th century, were discovered and excavated within these upper layers.
- 12.8.6 Significant quantities of redeposited and residual material were recovered from this phase of the site.
- 12.8.7 It is likely that deposits observed under Watching Brief conditions during the installation of services in this area were redeposited material used to landscape the area during the 20th century (Kinsley 2012: 12).
- 12.8.8 The relatively shallow impact of the modern and 19th century landscaping, as demonstrated by this excavation, demonstrates that stratigraphically sealed archaeological deposits are highly likely to survive below these layers, at least in areas where no significant structures (e.g. the bandstand) have been inserted into the landscape of the Outer Bailey.

13 CONCLUSION

- 13.1.1 Excavations during the summers of 2015 – 2018 have successfully demonstrated the preservation of a significant depth of intact archaeological features and stratigraphy relating to the use of the Outer Bailey after the Ducal Palace had been built. Excavations showed that the targeted area was possibly used as gardens for both pleasure and production in the 18th century, and for the deposition of large quantities of soil, probably derived from various locations within the Castle grounds during the late 19th to early 20th century. During this period the City Council leased large areas of the Castle grounds from the Duke of Newcastle and implemented several modifications to the walls and grounds. It is likely that the deposition of this material was fairly rapid, covering the original ground surface to a depth of c.1m. Because of this, the *in situ* preservation of the underlying archaeological horizons and features is exceptional. It is likely that the degree of preservation observed within the excavation undertaken and reported here, is consistent across the areas of the Outer Bailey landscaped during the late 19th– early 20th centuries.
- 13.1.2 The presence of artefacts ranging in date from the 11th to the 20th centuries show that there may be earlier archaeology to be discovered once the garden features have been excavated.
- 13.1.3 The interpretation provided above is subject to change as work continues on the site, however it does provide us with a significant base on which to categorise the numerous features that need to be excavated.
- 13.1.4 It is hoped that in the future, more work can also be completed around the potential allotment building, in order to understand its function and when it fell out of use. Nottingham is known for its allotments, and a pilot study has recently been completed on the nearby grade 2* listed Hungerhill gardens in St Anns, looking into patterns of historic land use on the site (Binns, 2016). Excavating the allotment building and the earlier garden features of Phases Three and Four noted above may provide a better insight into Nottingham's town gardens, how they evolved over time and why.
- 13.1.5 Due to commercial works at the Castle from June 2018, works in the Outer Bailey have been concluded for the foreseeable future. However based on this report future aims of *We Dig the Castle!* within the Outer Bailey are as follows:
- Continue to establish the age, function and relationships between the linear and oval features exposed during the 2016 and 2017 seasons.
 - Continue to determine the extent of brick structural remains [0100] and (0118) to the east, establish its function prior to demolition and when this demolition occurred.
 - Establish the relationship between potential brick step [0126] and brick remains [0231], [0238] and [0239] to the northeast of the site.
 - Determine the depth of material overlying the bedrock within the Outer Bailey, and establish the profile of the bedrock.

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15 ACKNOWLEDGEMENTS

Over the four seasons, fieldwork was supervised by Richard Parker and Laura Binns with the assistance of Kath Bentley, Tristan Cousins, Kate Smart, Thomas Linington, Tina Roushannafas, Joe Groake and Tom Hooley. The project was managed by Dr Paul Johnson, Matt Hurford and Gareth Davies. Thanks are due to Nottingham City Council especially Ron Inglis, Karen Lushey and Louise Button-Louth for their enthusiasm and support throughout the project. Also to the army of keen trainees and volunteers for their dedicated assistance and hard work. Much appreciated is the time given by Dr. David Knight and Scott Lomax for their tours around Anglo-Saxon Nottingham and the Castle. Thanks are also due to Alison Wilson, Marius Ilie, Kris Poole, Rosie Hughes, Norma Oldfield and Tiago Queiroz for their specialist input into the post excavation process. Many thanks are due to Gordon Young for his guidance and knowledge of the site and finally to Anne Insker and Alan Macormack, for their tutorials on pottery and guided tours of the Brewhouse Yard Museum.

16 PLATES



Plate 1: Area 1 excavated to a depth of 1m onto original 19th century allotment topsoil level. Looking northwest (R. Parker 2015)



Plate 2: Highlighted features within Area 2 of the 2015 season. Looking northwest (R. Parker 2015)



Plate 3: General shot of stepped trench Area 2, excavated to the northwest end of site. Looking east (R. Parker 2015)



Plate 4: 2016 season extension (Area 3) to the northeast of 2015 excavations. Image shows site prior to the extension of the reduced area. Looking north (L. Binns 2016)



Plate 5: Pre-ex shot of Area 4 level including 2015 season excavations. Looking east (T. Roushannafas 2016)



Plate 6: Post-ex shot of Area 4 in 2016 including 2015 season excavations. Looking northwest (T. Roushannafas 2016)



Plate 7: Pre-ex shot of Area 4 in 2017 including 2015 and 2016 season excavations. Looking north (L. Binns 2017)



Plate 8: Post-ex shot of Area 4 at the end of the 2017 season. Looking northwest (L. Binns 2017)



Plate 9: Post-ex shot of Area 4 west corner at the end of the 2017 season. Looking west (L. Binns 2017)



Plate 10 (Above): Post-ex shot of Area 4 north corner at the end of the 2017 season, including structure [0126]. Looking northwest (L. Binns 2017)



Plate 11 (Right): Post-ex shot of gully [0185]. Looking southwest (L. Binns 2017)



Plate 12: Southwest facing section of gully [0185] within intersection 14. Looking northeast (L. Binns 2017)



Plate 13: Northeast facing section of gully [0188] within intersection 08. Looking southwest (Trainees 2017)

Plate 14 (Right): Post-ex shot of gullies [0146] and [0136]. Looking southwest (L. Binns 2017)



Plate 15 (Below): Southwest facing section of gully [0146] within intersection 11. Looking northeast. (Trainees 2017)





Plate 16: Post- ex shot showing termini of gullies [0136] and [0146] cut by linear [0150], within intersection 04. Looking southwest (Trainees 2017)



Plate 17: Southwest facing section of gully [0136] below structure [0126] within intersection 19. Looking northeast (Trainees 2017)



Plate 18: Northeast facing section of gully [0057] within intersection 07. Looking southwest (Trainees 2017)



Plate 19: Southwest facing section of gully [0057] within intersection 07. Looking north (Trainees 2017)



Plate 20: Northeast facing section of gully [0057] within intersection 03 before extension. It is being cut through by ditch [0052], known as [0138] throughout this report Looking southwest (Trainees 2017)



Plate 21: Trough shaped feature [0055] and two gullies [0059] and [0061] within intersection 01. Looking northeast (R. Parker 2015)



Plate 22: Southwest facing section of gully [0061] within intersection 13. Looking northeast (Trainees 2017)



Plate 23: Southwest facing section of gully [0171] within intersection 02. Looking northeast (Trainees 2017)



Plate 24: Northeast facing section of gully [0132] within intersection 02. Looking southwest (Trainees 2017)



Plate 25: Pre-ex shot showing gully [0173] truncated by trough [0205]. Looking south (Trainees 2017)



Plate 26: Post-ex shot showing ditch [0184] at its intersection with gully [0188] in intersection 12. Looking northwest (Trainees 2017)



Plate 27: Post-ex shot showing ditch [0186] at its intersection with gully [0185] in intersection 10. Looking northwest (Trainees 2017)



Plate 28 (Left): Post-ex shot showing ditch [0195] at its intersection with gully [0185] in intersection 14. Looking north. (Trainees 2017)

Plate 29 (Below): Post-ex shot showing ditch [0189] at its intersection with gully [0146] and pit [0202] in intersection 11. Looking northwest. (Trainees 2017)



Plate 30 (Left): Post-ex shot showing ditch [0189] at its intersection with gullies [0185], [0188], [0146], [0136], [0057] and [0059]. Looking northwest. (Trainees 2017)



Plate 31 (Below): Southeast facing section of ditch [0189] in section Area 4, at its intersection with gully [0185]. Looking northwest. (L. Binns 2017)





Plate 32: Post-ex shot showing trough [0205] at its intersection with gullies [0132] and [0173] in intersection 15. The close relationship with [0171] can also be seen. Looking south. (Trainees 2017)



Plate 33: Mid-ex shot showing trough [0197] at its intersection with gully [0061] within intersection 13. The close relationship with [0171] and pit [0237] can also be seen. Looking west. (Trainees 2017)



Plate 34: Mid-ex shot showing northeast facing section of troughs [0197], and [0205] and gullies [0061], [0173] and [0132] within intersections 13 and 15. Looking southwest. (Trainees 2017)



Plate 35: Southeast facing section of trough [0197], within intersection 13. Looking northwest. (Trainees 2017)



Plate 36: Northwest facing section of trough [0134] (previously [0051], now extended) cutting through gully [0132] within intersection 02. Looking southeast (T. Roushannafas 2016)



Plate 37: Northwest facing section of trough [0134] extended beyond section above, cutting through gully [0132] within intersection 02. Looking southeast (Trainees 2017)



Plate 38: Post-ex shot of trough [0134], cutting through gullies [0132] and [0171] within intersection 02. Looking southeast (Trainees 2017)



Plate 39: Post-ex shot of trough [0159], truncated by terminus of ditch [0138/0190]. Looking southeast (Trainees 2017)



Plate 40: Post-ex shot of southeast facing section of ditch [0138], truncated by feature [0148] and truncating gully [0136]. Looking northwest (Trainees 2016)



Plate 41: Post-ex shot of southeast facing section of ditch [0138], extension of the above section. Feature [0148] shown to be more shallow. Looking northwest (Trainees 2017)

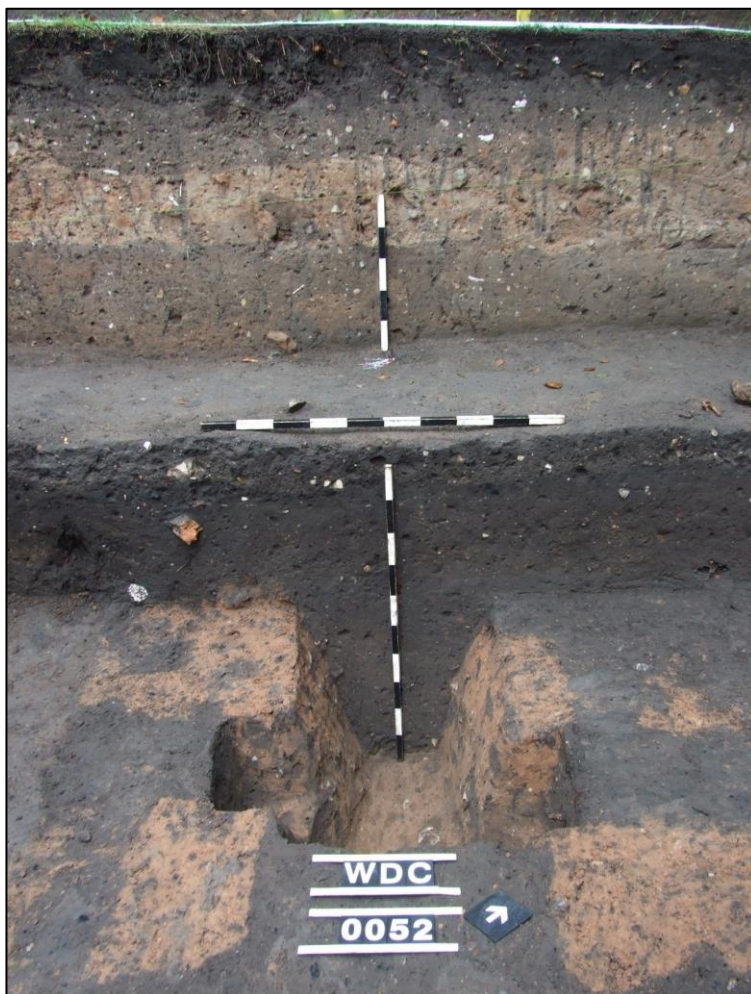


Plate 42 (Left): A view of the full southeast facing section of [0138] numbered [0052] in the 2015 season, showing 1000mm of re-deposited ground overlying the late 19th century topsoil layer (shelf). This overlaid a darker deposit of 18th and 19th century soils, which in turn, lay above the clear cut features. Numbered [0138] on plates 40 and 41. Looking northwest (R. Parker 2015)

Plate 43 (Below): Post-ex plan shot of ditch [0138] within intersection 06, numbered here as [0190]. Looking northwest (Trainees, 2017)





Plate 44 (Left): Mid-ex shot of the entire length of linear [0138]. Looking northwest (L. Binns 2017)

Plate 45 (Below): Southeast facing section of linear [0150] within intersection 07. Looking northwest (Trainees, 2017)





Plate 46 (Above): Plan shot of linear [0150] truncating gully [0057] and trough [0197] within intersection 07. Looking west (Trainees, 2017)



Plate 47 (Right): Post-ex plan shot of linear [0150] truncating gullies [0188], [0146], [0136] and [0057] and trough [0197]. Looking northwest (L. Binns, 2017)



Plate 48: Mid-ex plan shot of posthole [0217]. Looking southwest (Trainees, 2017)



Plate 49: Northeast facing section of Area 4. Looking south (Trainees, 2017)



Plate 50: Southeast facing section of Area 4 at the end of the 2016 season. Looking west (T. Roushannafas 2016)



Plate 51: Oblique shot of drainage gully [0121] in relation to Area 2. Looking east (L. Binns 2016)



Plate 52: Southwest facing section of modern pit [0130] abutting structure [0126]. Looking northeast (Trainees 2017)



Plate 53: Post-ex plan shot of modern pit [0130] truncating earlier garden features. Looking northeast (Trainees 2017)



Plate 54: Southwest facing section of gully [0121], structure [0126] and pit [0130]. Looking northeast (Trainees 2016)



Plate 55: Structure [0126] after excavation and its relationship with pit [0130]. Looking northeast (Trainees 2016)



Plate 56: Structure [0126] after removal of (0102) up to surface [0100]. Looking northeast (Trainees 2017)



Plate 57: Structure [0126] abutting wall [0222] orientated northwest-southeast continuing below surface [0100]. Looking northeast (Trainees 2017)



Plate 58 (Left): Wall [0222] protruding beyond structure [0126]. Looking east (Trainees 2017)

Plate 59 (Below): Structures [0231], [0238] and [0239] revealed at the northeast end of Area 5 below redeposited material. Looking northwest (Trainees 2017)





Plate 60: Brick surface [0118] and the line of brickwork [0100] abutting it. Flagstones [0153] can be seen against the southwest facing section. Looking north (T. Roushannafas 2016)



Plate 61: Brick surface [0118] and the line of brickwork [0100] abutting it within Areas 5 and 6. Looking east (N. Oldfield 2017)



Plate 62 (Above): Modern ditch [0225] truncating surface [0118]. Looking southeast (Trainees 2017)



Plate 63 (Left): Mid ex plan of slot through modern ditch [0225] truncating surface [0118]. Looking northeast (Trainees 2017)



Plate 64 (Above): The undulations of the potato furrows from the 19th century allotments are clearly visible in section. Looking west (R. Parker 2015)

Plate 65 (Left): Northeast facing section showing lead water pipe [0015] noted running broadly east to west. Likely to date to the early 20th century prior to the building of the bandstand. Looking southwest (R. Parker 2015).



Plate 66 (Left): Mid excavation view of [0020] showing concrete foundation pad with cut off iron post set within it. Looking southwest (R. Parker 2015).

Plate 67: Test Pit 03 showing brick surface [3005]. Scale 1m. Looking west





Plate 68: Test Pit 03 west facing section. Scale 1m. Looking east



Plate 69: Test Pit 04 showing brick surface [4005]. Scale 1m. Looking northeast



Plate 70: Test Pit 05 showing cut [5003] in plan. Scale 1m. Looking north



Plate 71: Test Pit 05 south facing section showing cut [5003]. Scale 1m. Looking north



Plate 72: The formal gardens of Hanbury Hall, Droitwich Worcestershire.



Plate 73: The formal vegetable gardens of Hanbury Hall, Droitwich, Worcestershire



Plate 74: Excavation of gardens at Hampton Court, revealing straight edged and flat based features



Plate 75: The flower gardens of Chatsworth, Derbyshire

Plate 76 (Right): The skulls of two dogs and a cat found in a den below 19th allotment levels



Plate 77: James I farthing c.1619 found in levelling deposit (0002) Finds code (AAA).



Plate 78: Silver hammered short cross penny (half) c.1133– 1216. These coins were initially struck under the reign of Henry II 1133–1189, however they continued to be issued throughout the reign of King Richard 1189–1199 and King John 1199–1216. Context (0029) Finds code (AGQ)



Plate 79: Silver hammered short cross penny (quarter) c.1133–1216. Context (0014) Finds code (ADD).



Plate 80: Lead/pewter coin weight (?) Design has similar characteristics to 12th/13th century coinage. Context (0008) Finds code (ABG).



Plate 81: 17th / 18th century clay pipe bowl and stem. Context (0022) Finds code (AEH).



Plate 82: 17th / 18th century clay pipe bowl and stem with markings WS which probably refers to William Sefton who was manufacturing clay pipes between 1696–1729. Context (0022) Finds code (AEH).



Plate 83: 17th/18th century clay pipe bowl styles. Context (0022) Finds code (AEH)



Plate 84: 17th/18th century pipe bowl with illegible makers stamp Context (0022). Finds code (AEH)



Plate 85: 17th/18th century clay pipe bowl with makers stamp 'I' which is the mark of John James who made pipes between 1684-1720. Context (0022) Finds code (AEH).



Plate 86: 13th/14th century green glazed roof tile. Context (0022) Finds code (AHS).



Plate 87: Ornamental plant pot stand possibly relating to the 18th century Ducal Palace gardens. Context (0002) Finds code (AAL)



Plate 88 (Above): Typical assemblage of Medieval 13th/14th century green glazed wares. Context (0022). Finds code (AHS)



Plate 89 (Right): A selection of Post Medieval pottery 18th/19th century. Context (0029).

17 FIGURES

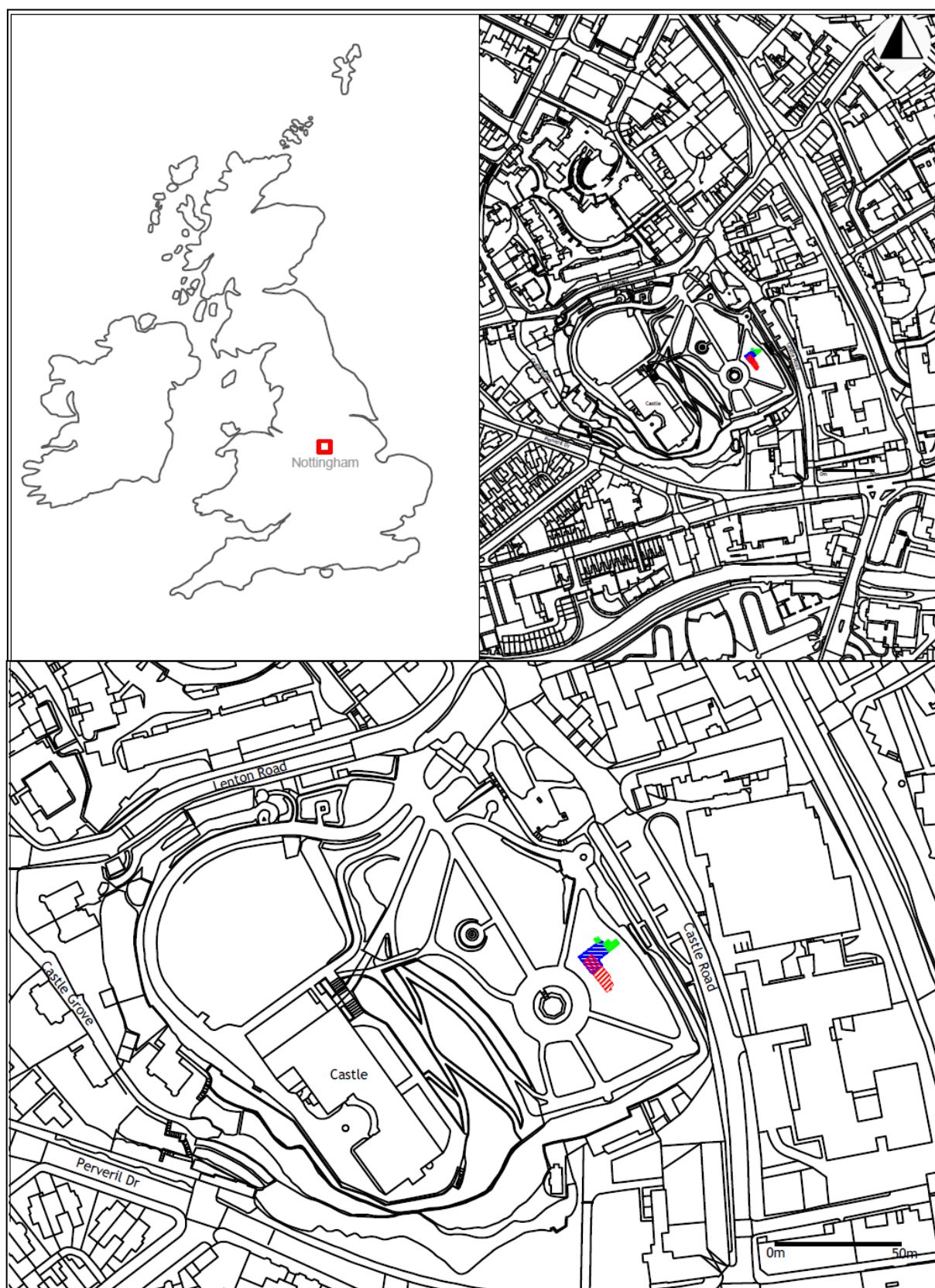


Figure 1: *We Dig the Castle!* trench location. The red indicates the 2015 season, the blue indicates the 2016 extension and the green indicates the 2017 extensions.

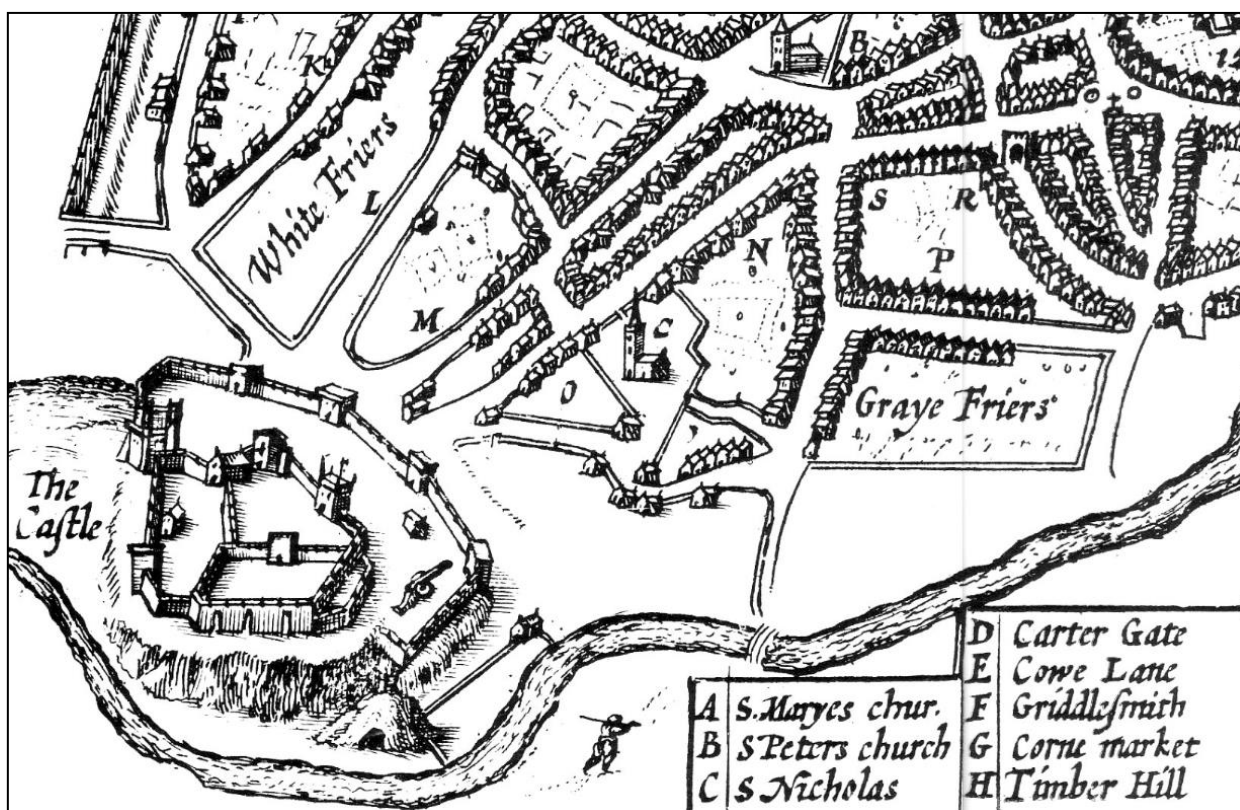


Figure 2: Speed's 1610 Map of Nottingham, showing the layout of Nottingham Castle and in particular the Outer Bailey. Not to regular scale

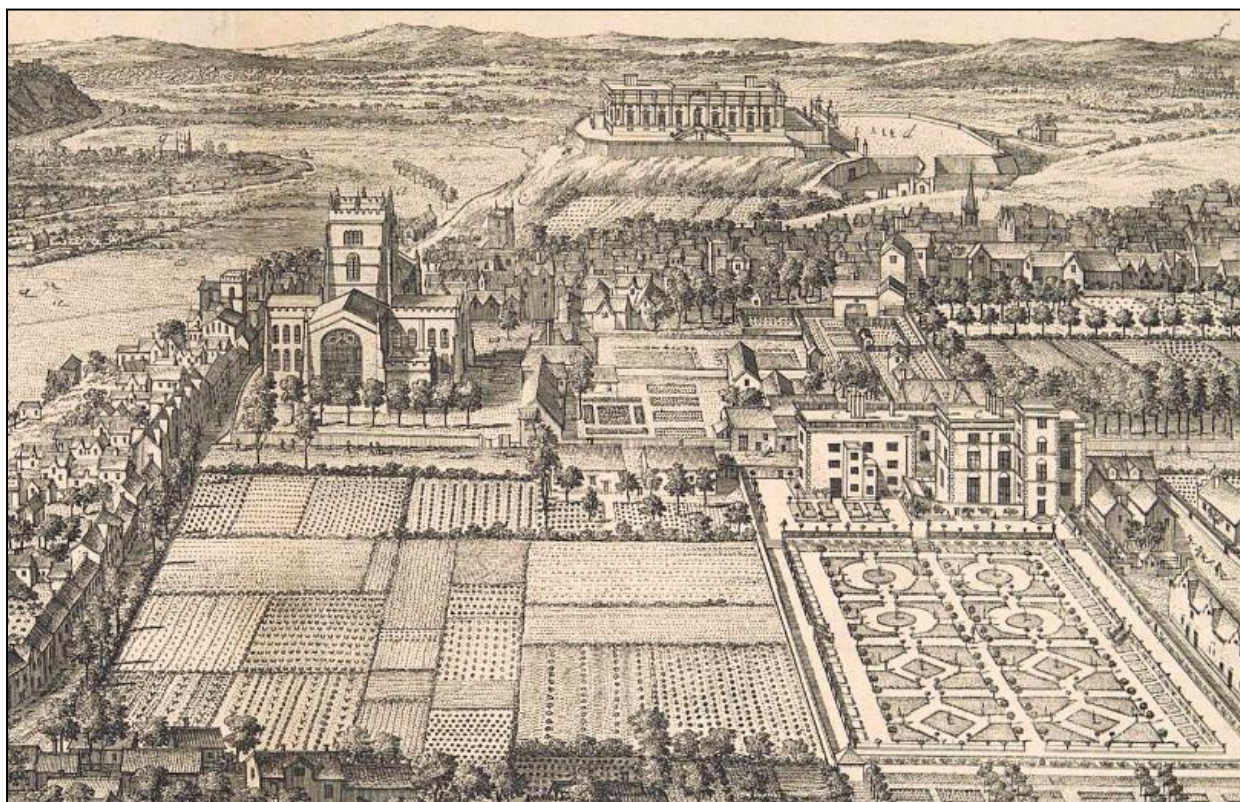


Figure 3: The prospect of Nottingham from the East in 1707, by L. Knyff, showing the layout of the Ducal Palace's gardens within the Outer Bailey. Mr. Pierrepont's house is to the right of the image; St. Mary's church is to the left. Not to regular scale

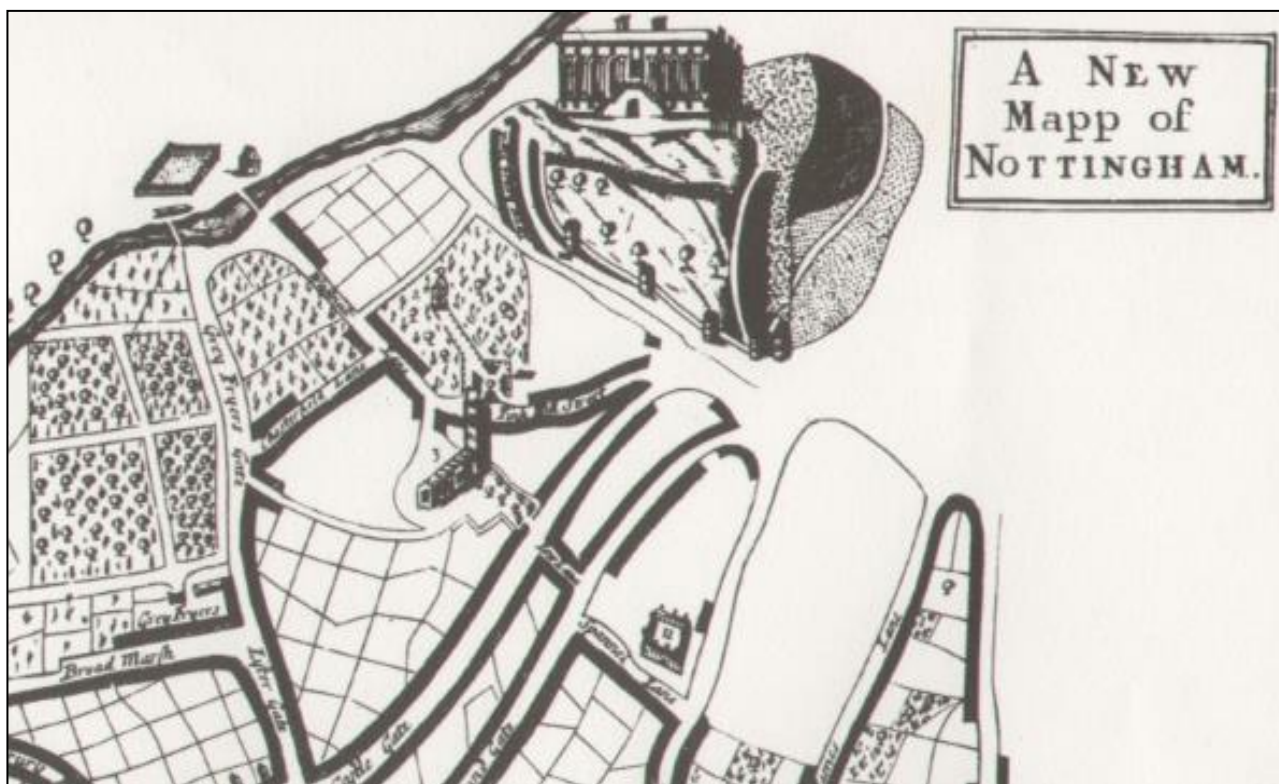


Figure 4: Henry Overton's 1714 New Mapp of Nottingham looking southwest towards the castle and Outer Bailey. Not to regular scale

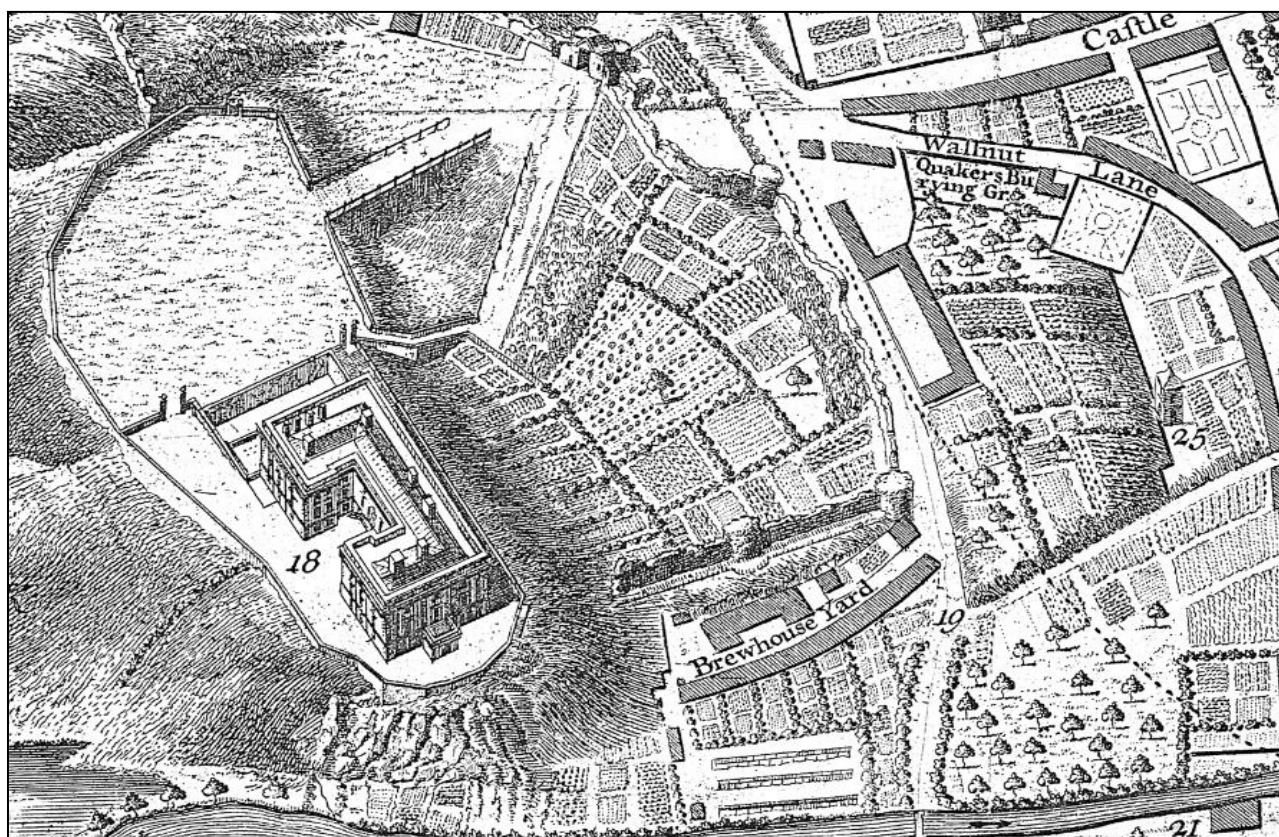


Figure 5: Badder and Peat's map of Nottingham, dated to 1744, showing the Outer Bailey walls enclosing gardens. Not to regular scale

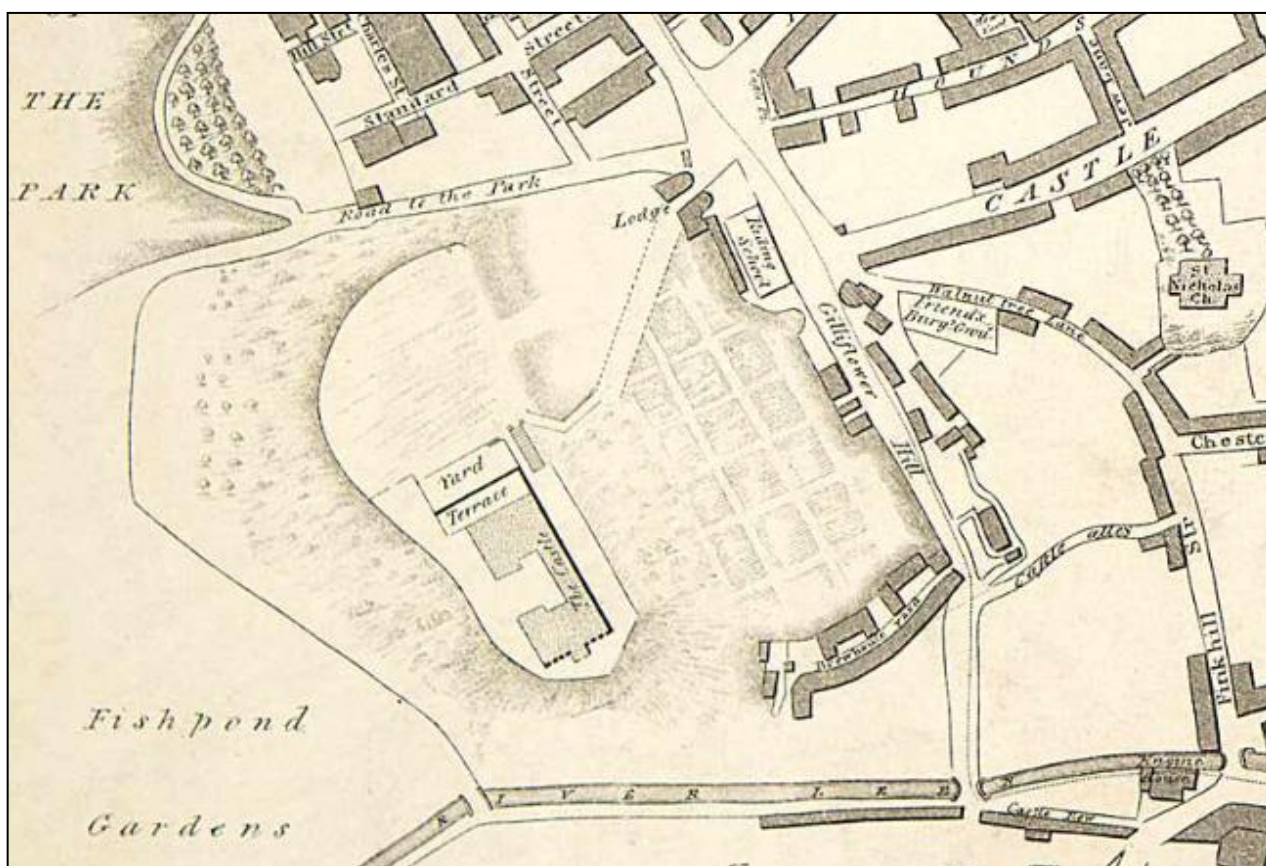


Figure 6: Wild and Smith's 1820 New Plan of the Town of Nottingham, showing the castle and gardens. Not to regular scale

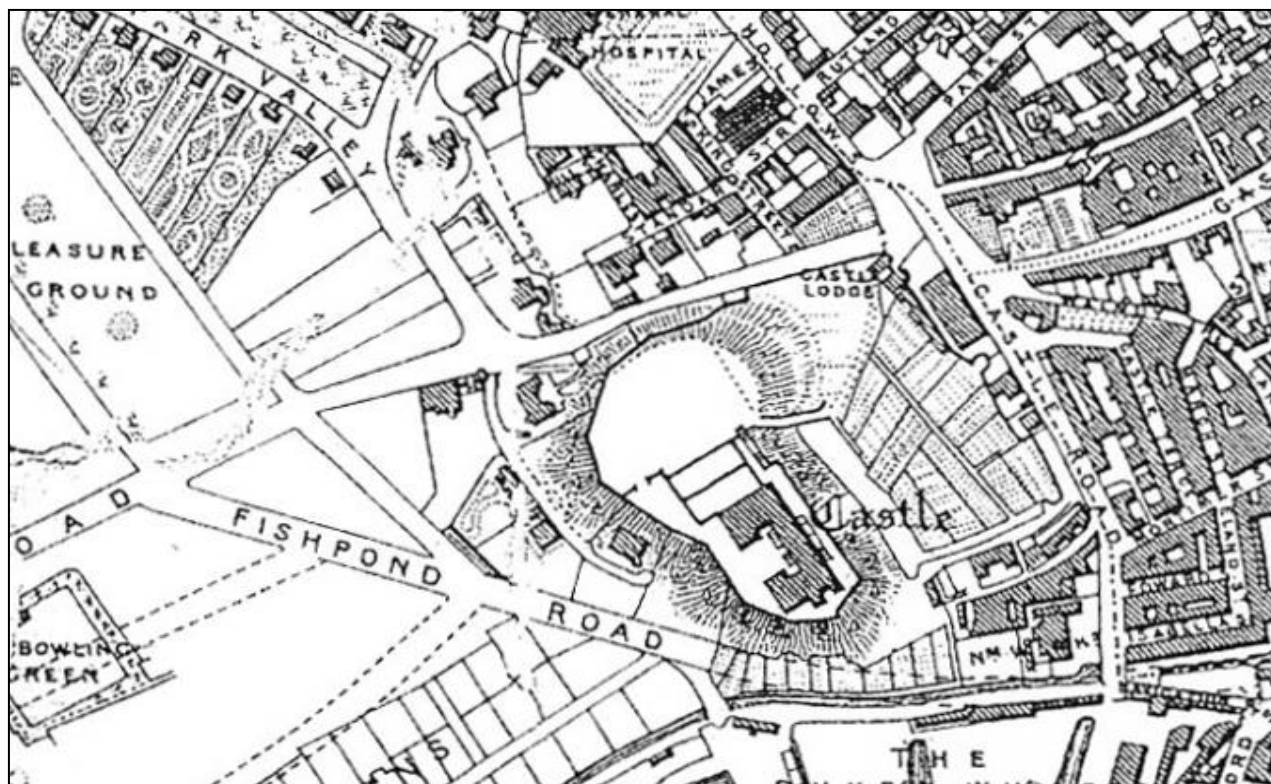


Figure 7: Jackson's map of Nottingham, dated to 1861, showing the continued use of the Outer Bailey gardens as allotments. Not to regular scale

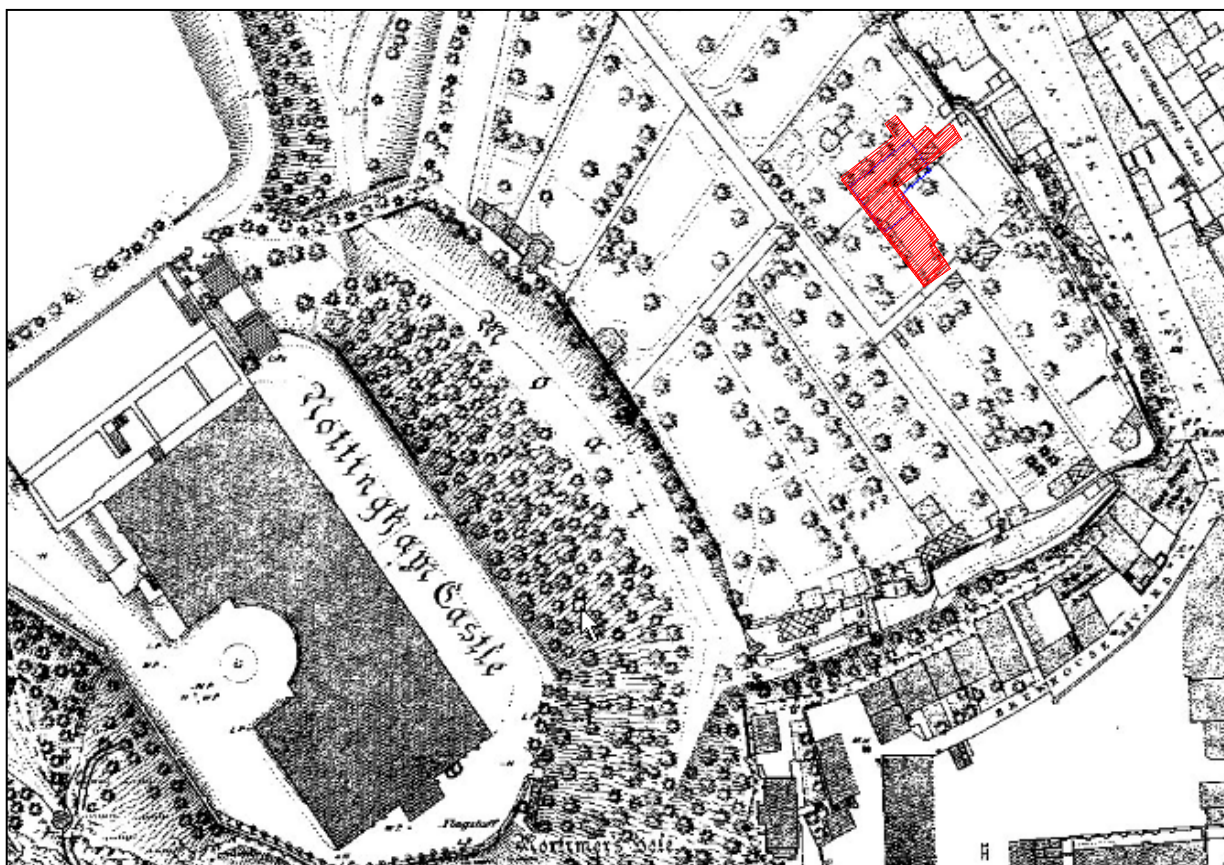


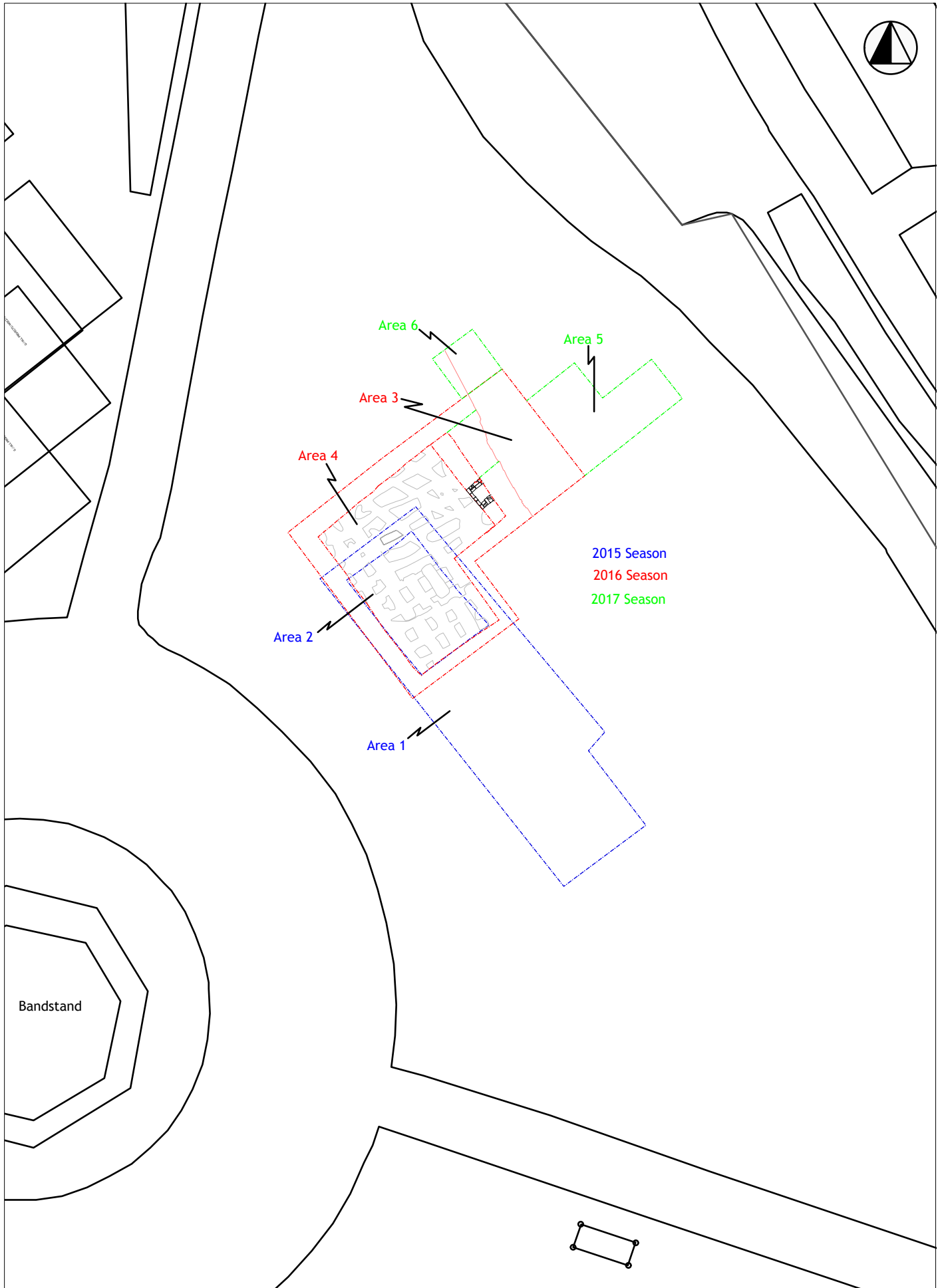
Figure 8: 6 Inch OS map from 1880 showing the Castle and Outer Bailey allotments. Trenches are shown to be located directly over a set of allotment structures. Not to regular scale.

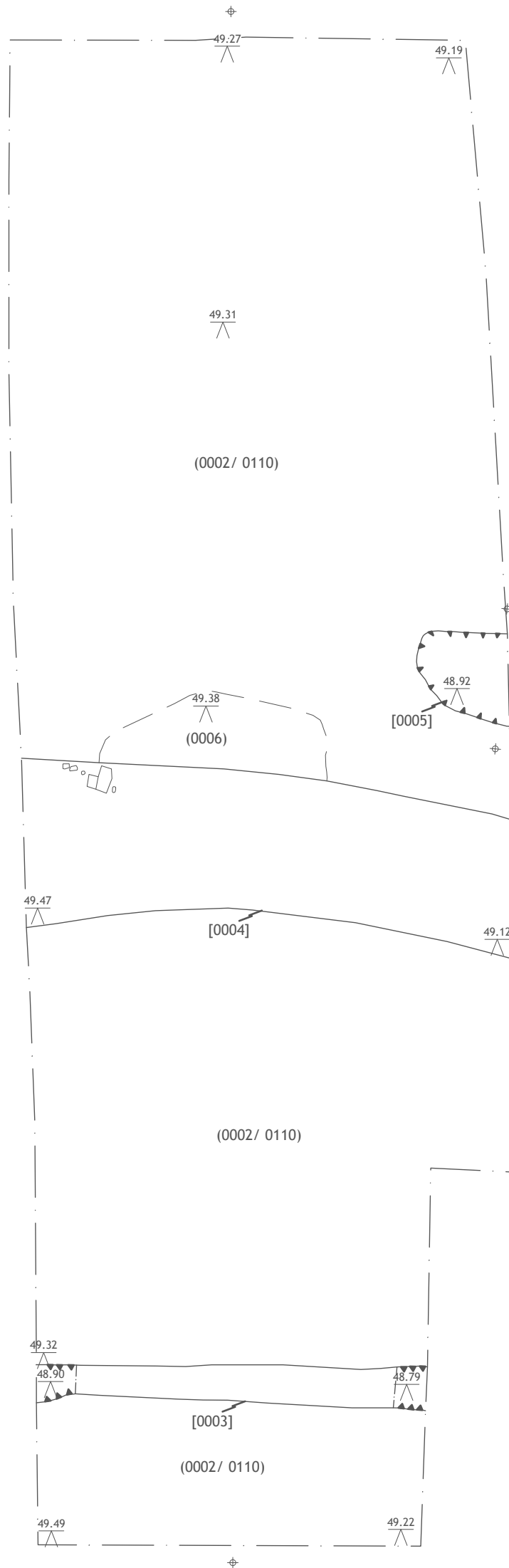


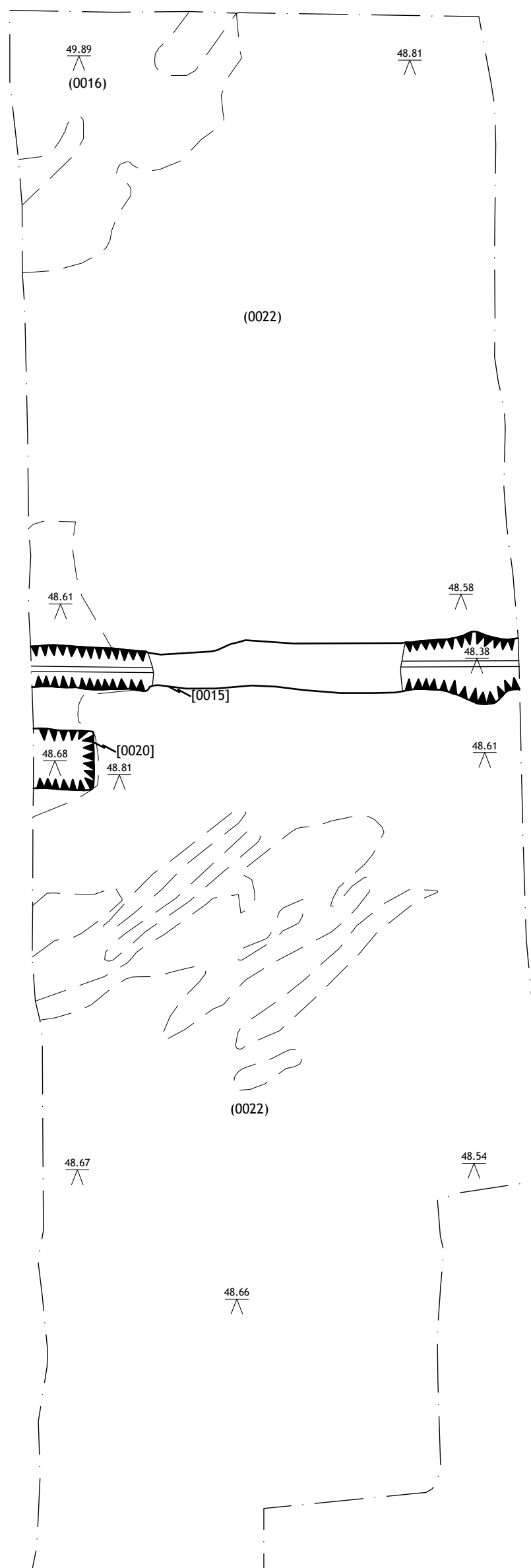
Figure 9: 6 Inch OS map from 1901 showing the Outer Bailey allotments and the landscaping that has started to take places. Not to regular scale.

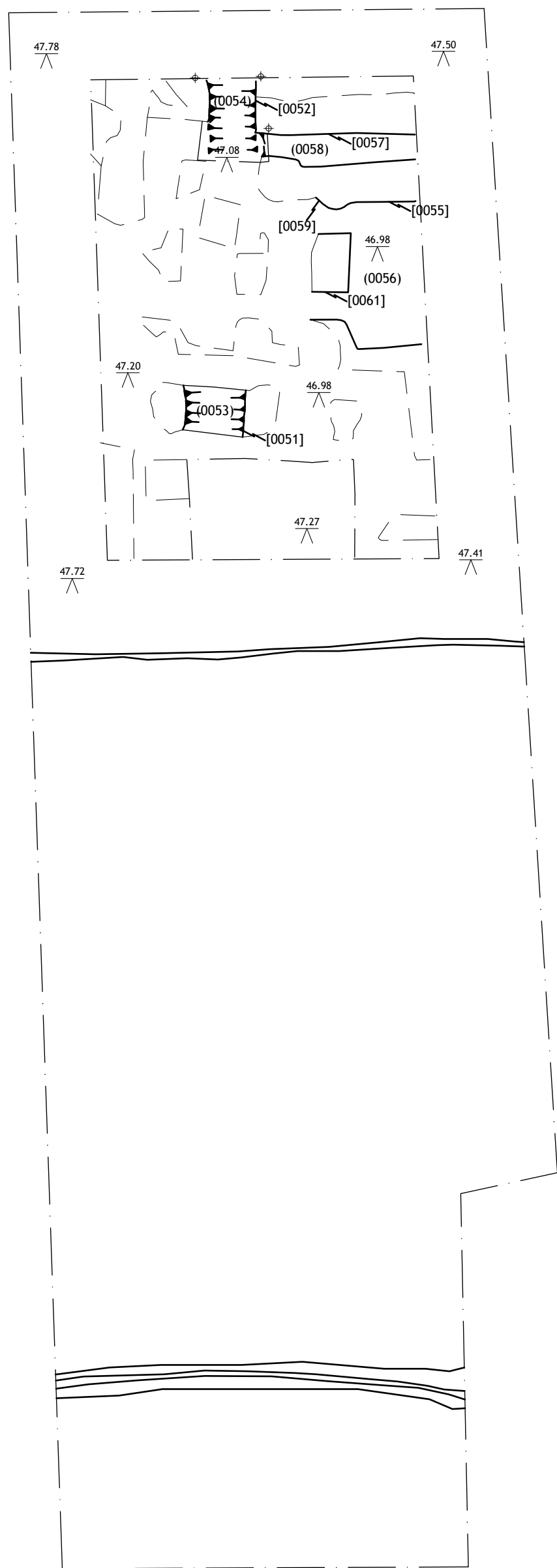


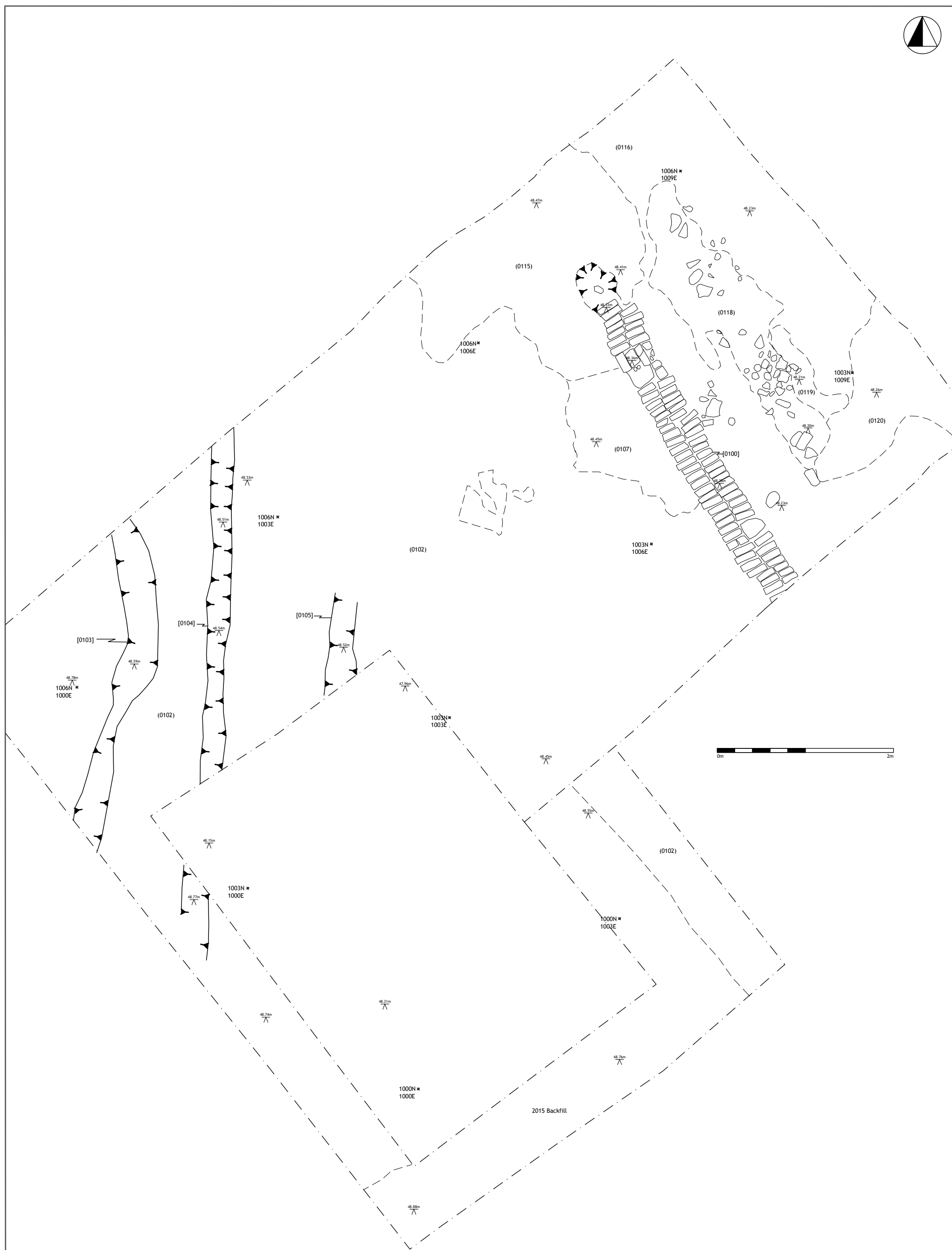
Figure 10: 6 Inch OS map from 1920 showing the Outer Bailey after landscaping with the bandstand is clearly visible. Not to regular scale.

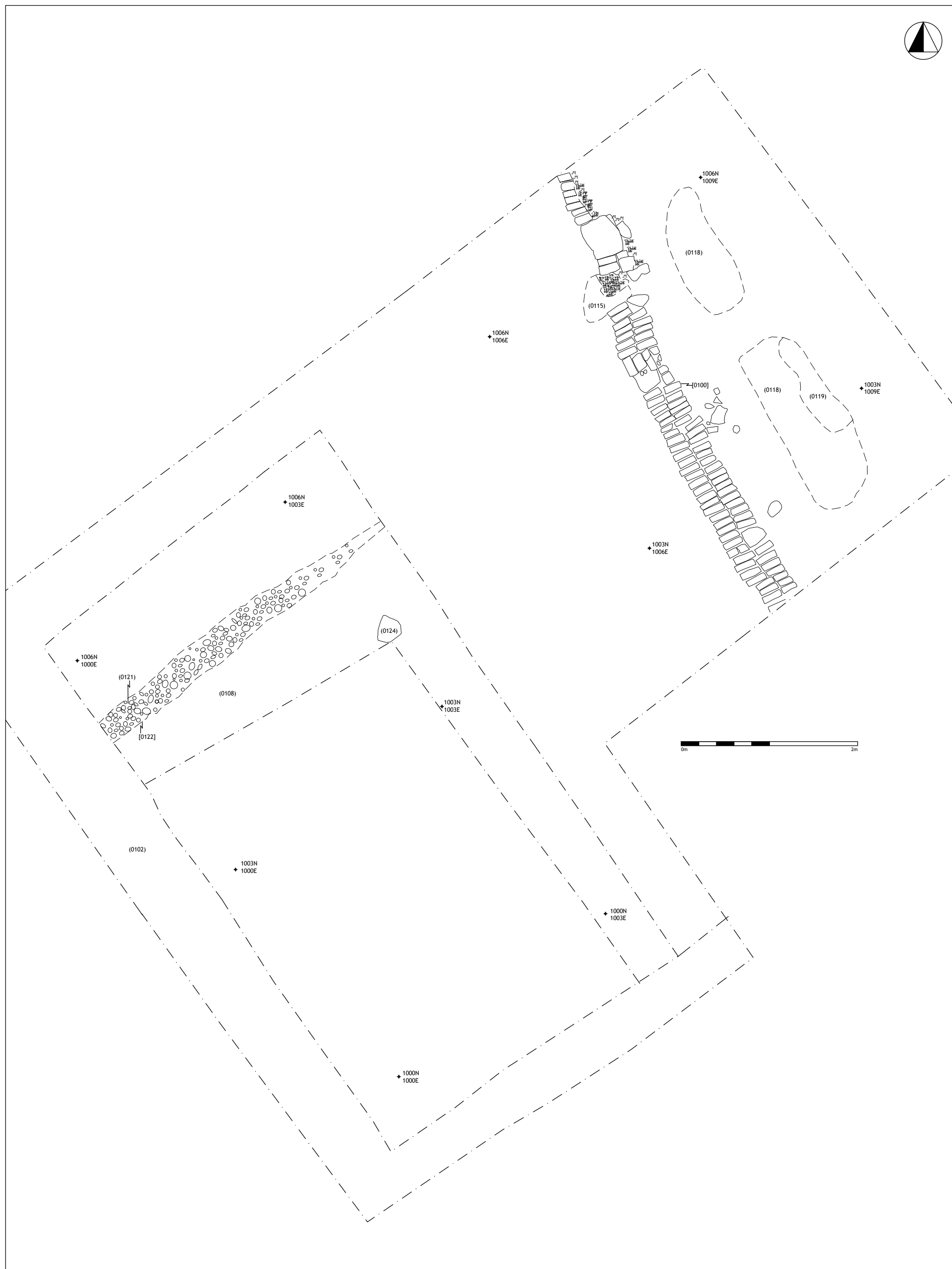


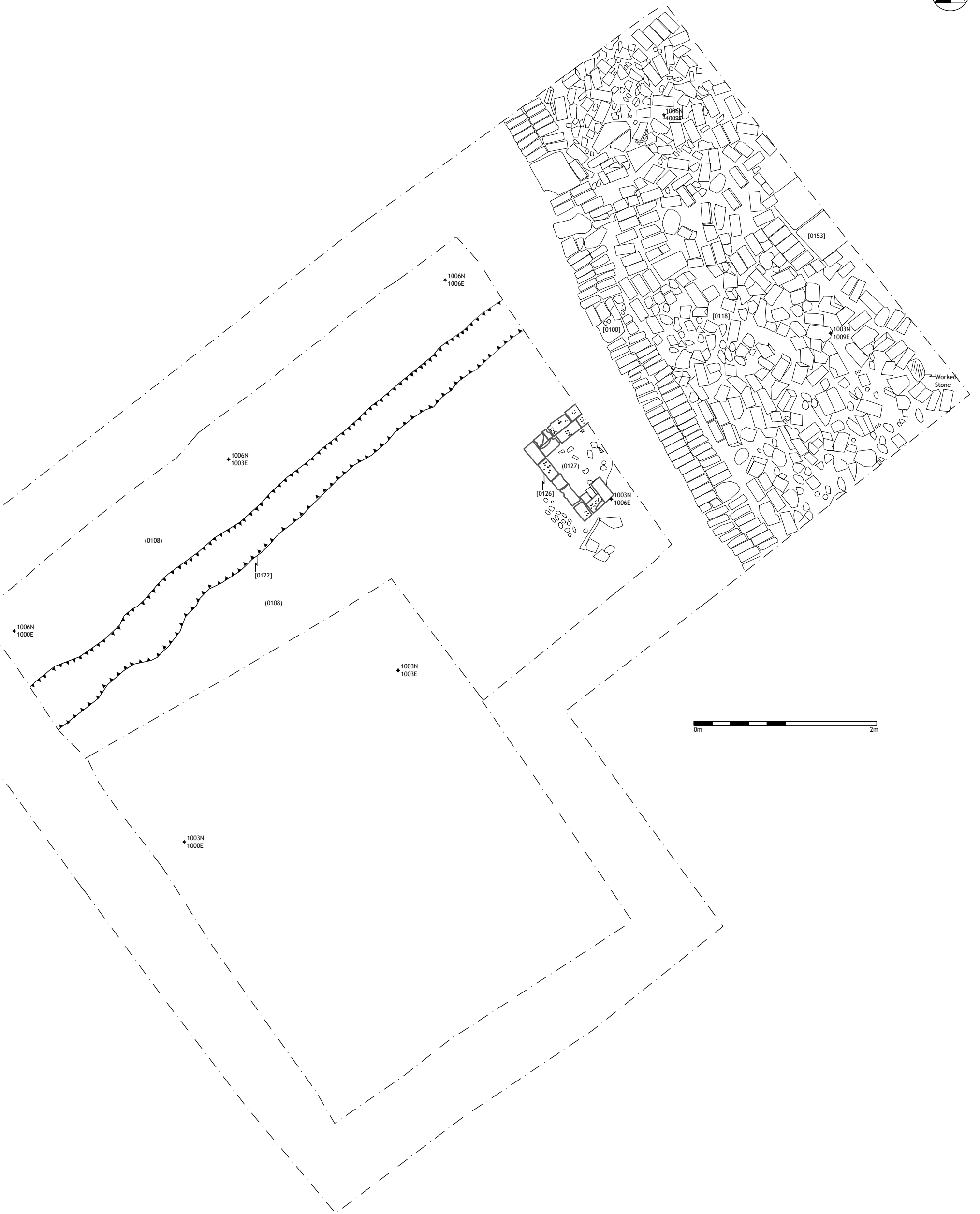


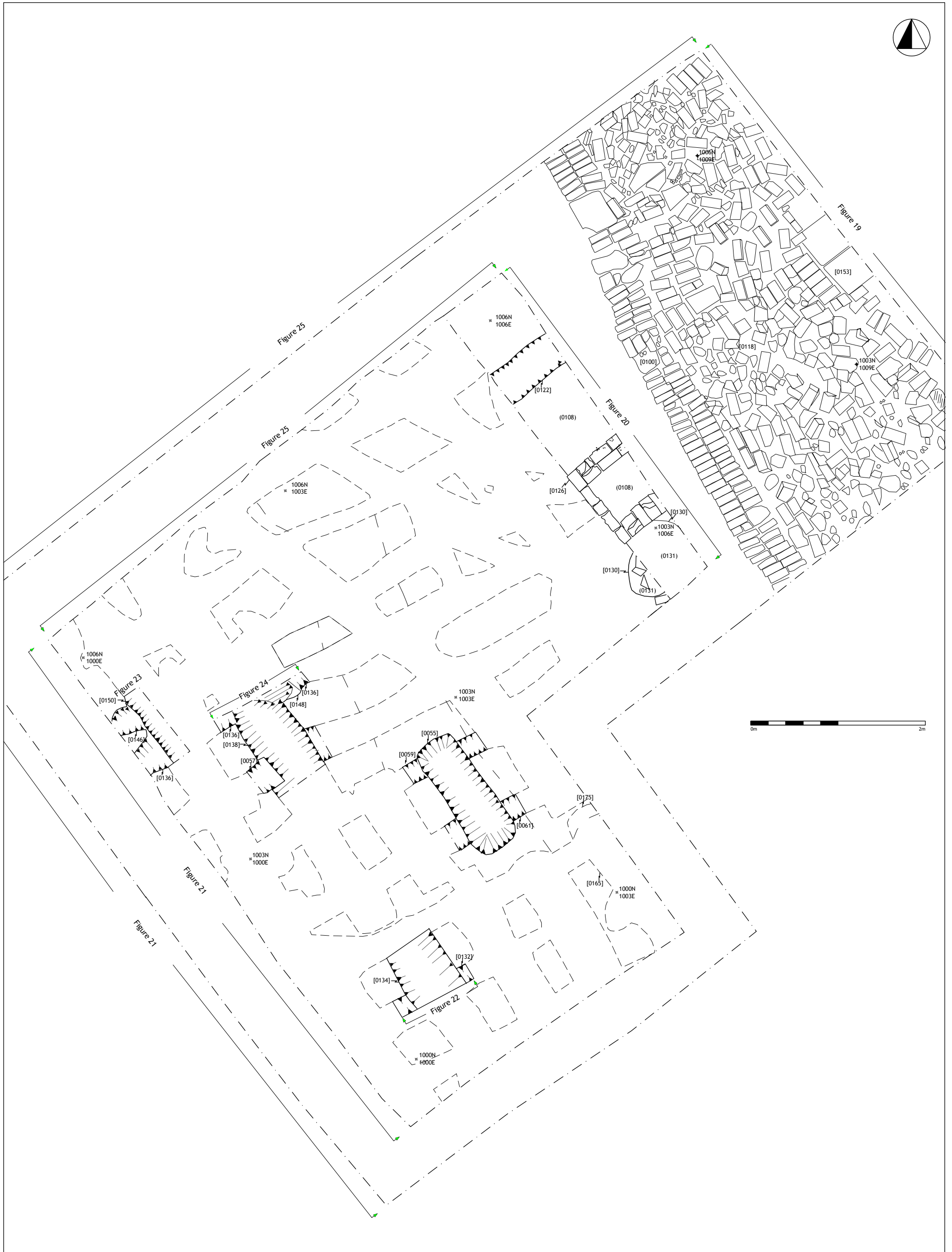












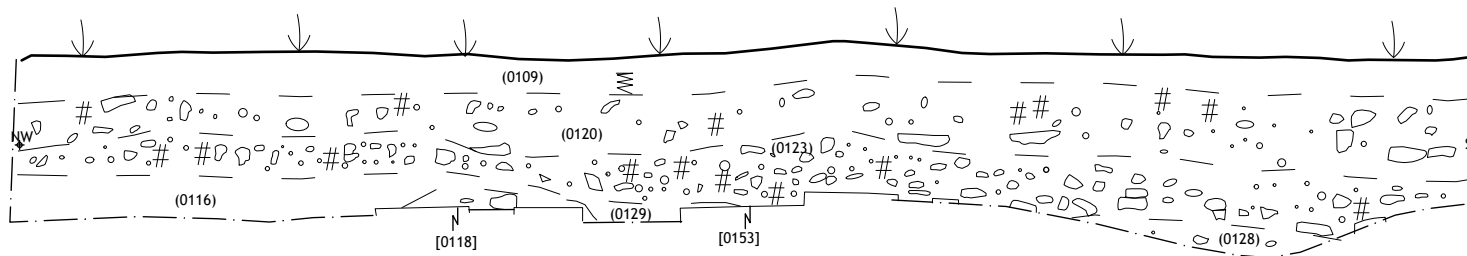


Figure 21: Southwest facing section of Season 2016 trench

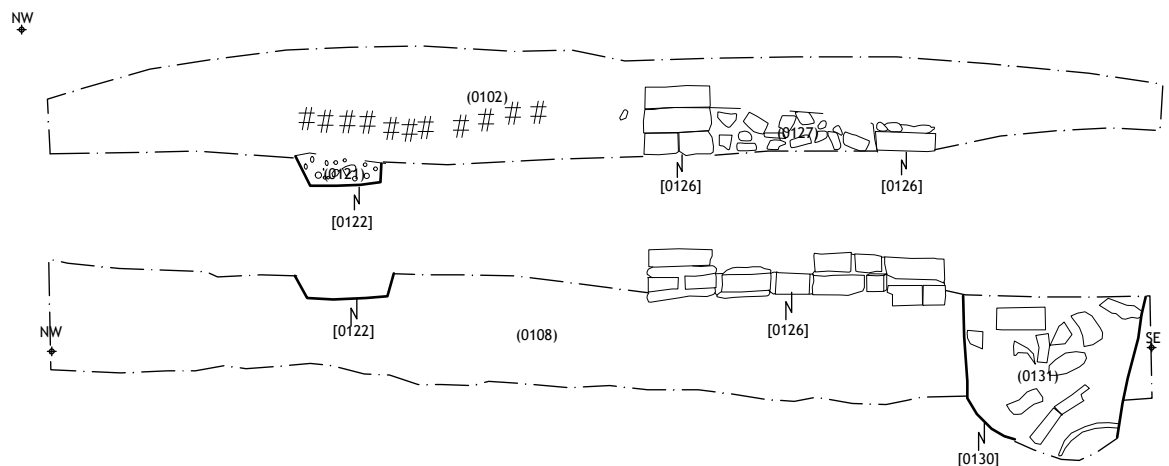


Figure 22: Southwest facing sections of stepped slot through [0122] and [0126]



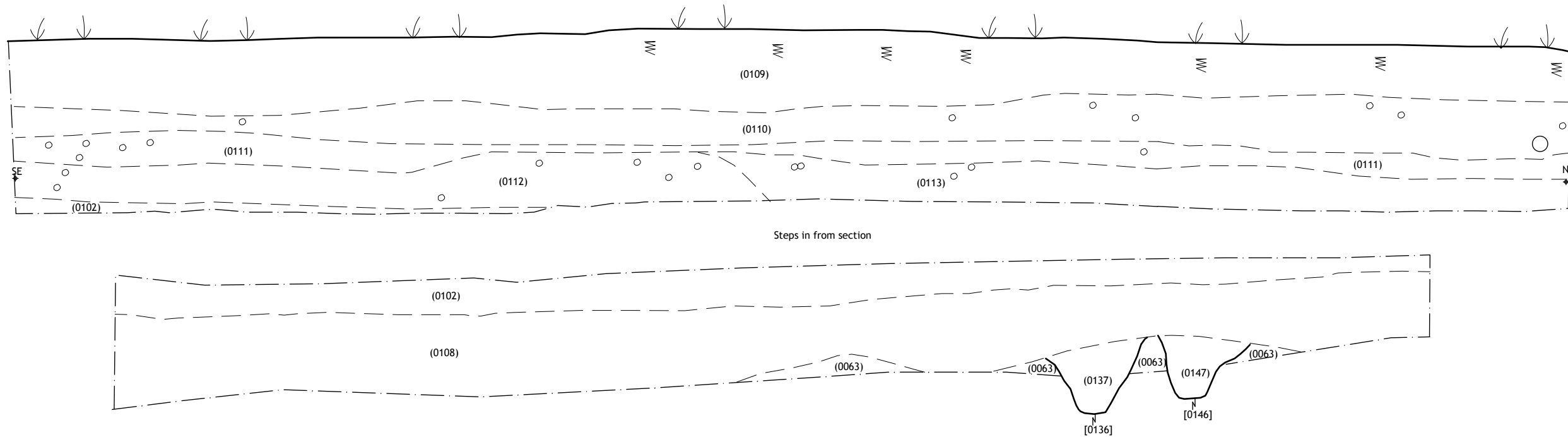


Figure 23: Northeast facing section of the 2016 season

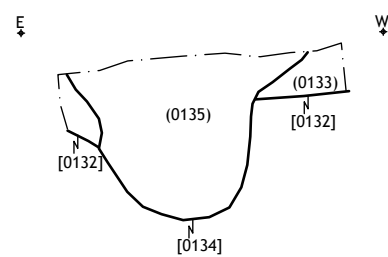


Figure 24: North Facing Section of [0132] and [0134]

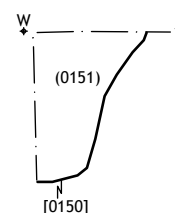


Figure 25: South Facing Section of [0150]

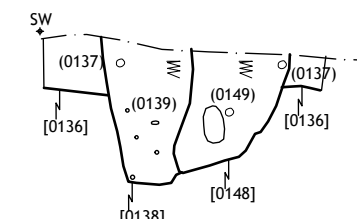
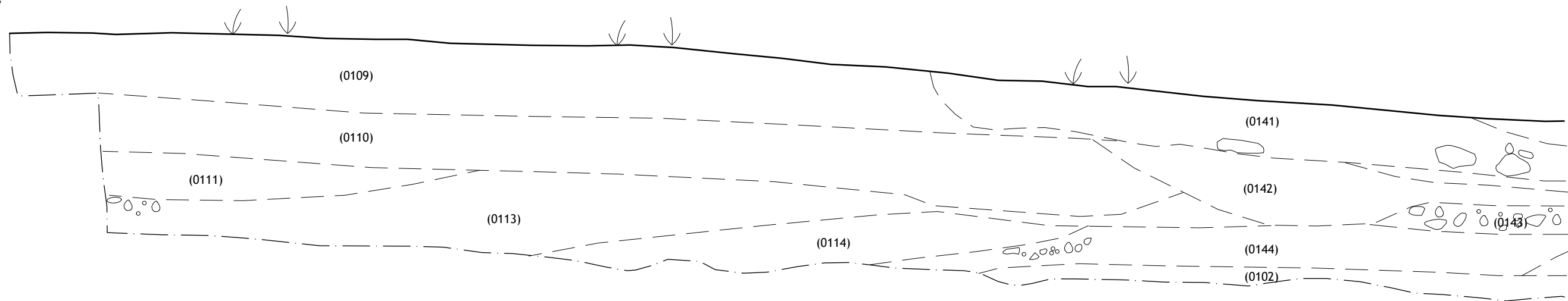


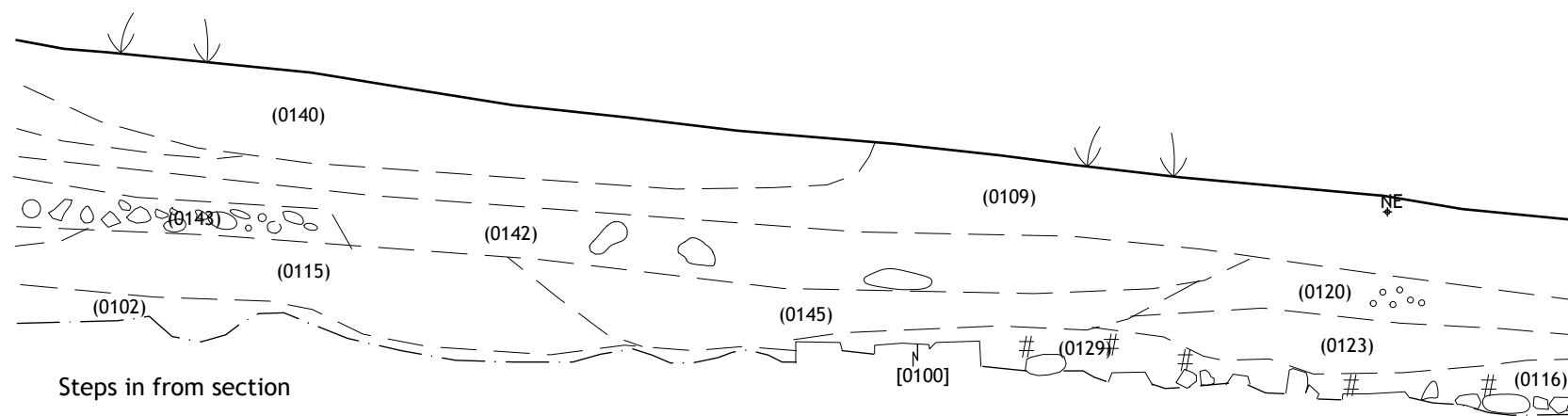
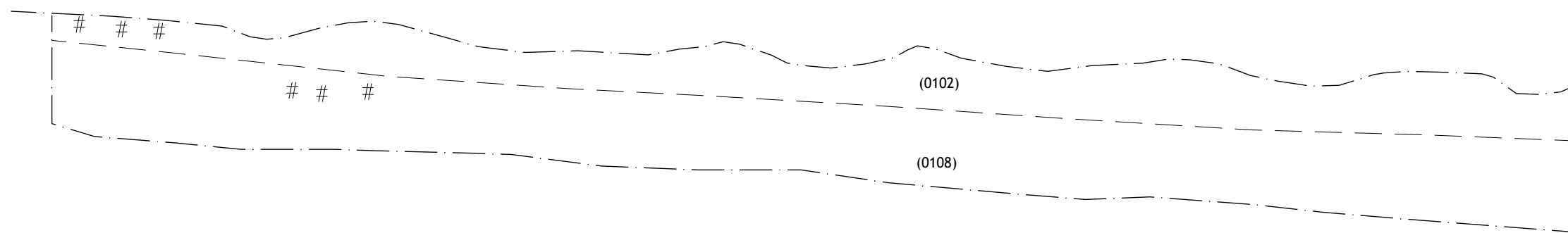
Figure 26: Southeast Facing Section of [0136] [0138] and [0148]



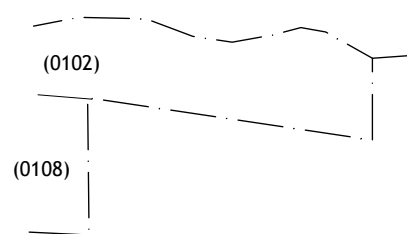
SW



Steps in from section

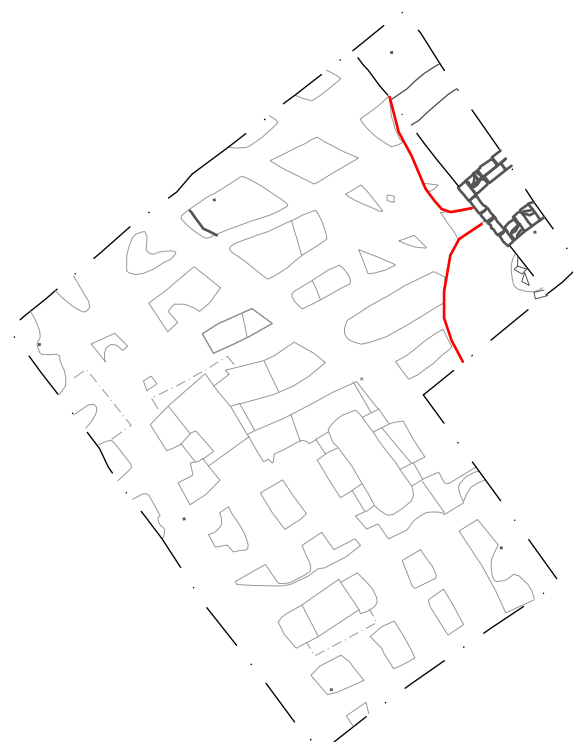


Steps in from section

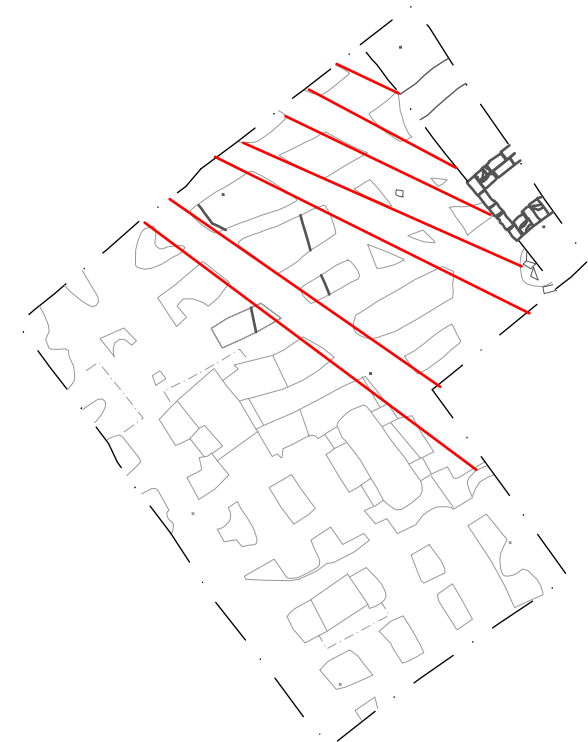




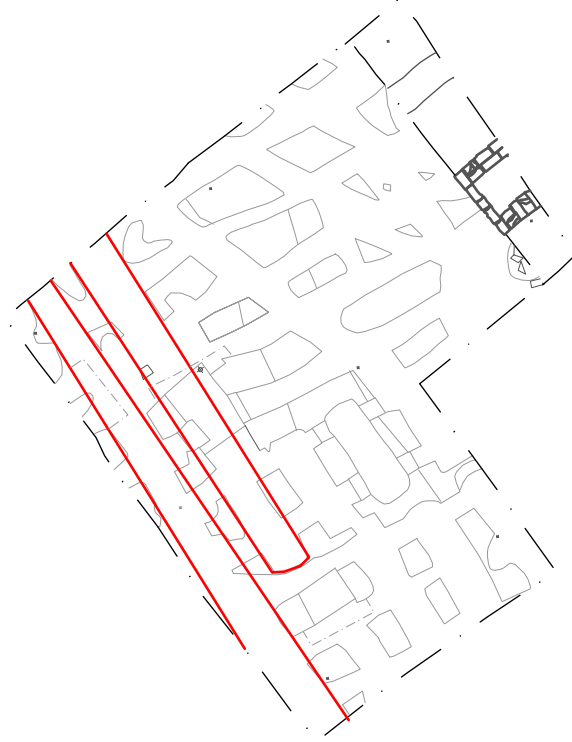
Phase One: Earliest Ditch



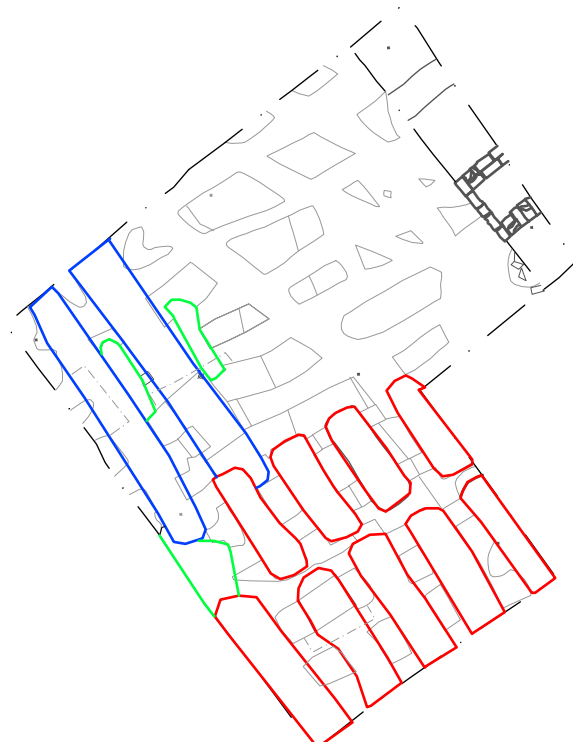
Phase Two: Formal Gardens Features



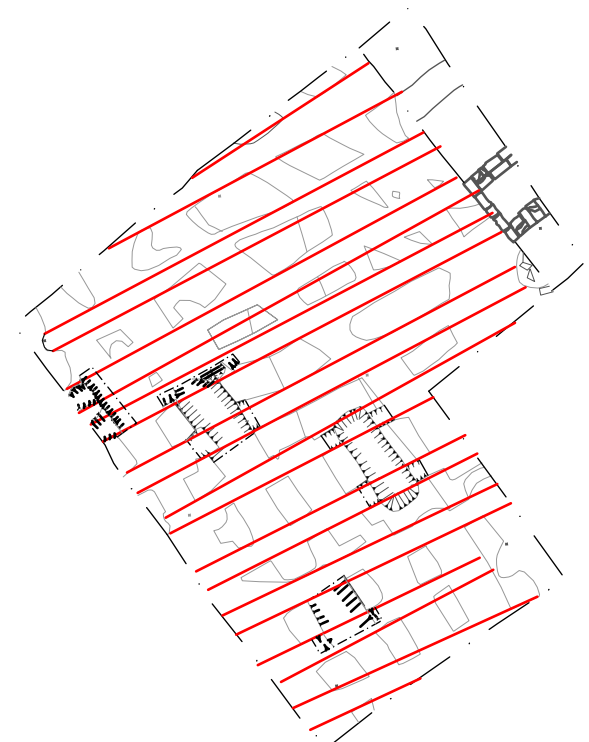
Phases Three and Four: Change in use and garden structure



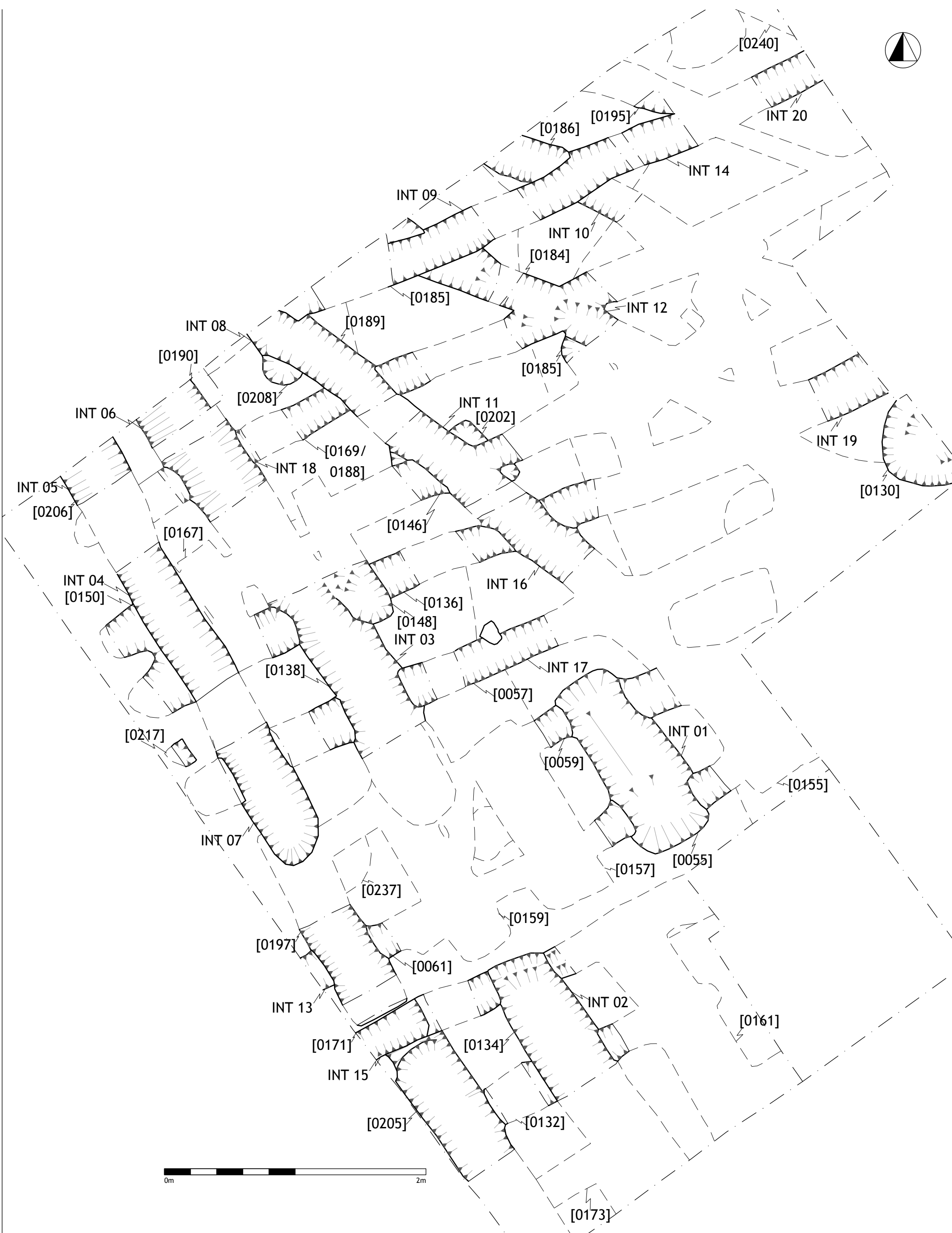
Phases Three and Four: Change in use and garden structure



Phases Three and Four: Change in use and garden structure



Phases Three and Four: Change in use and garden structure



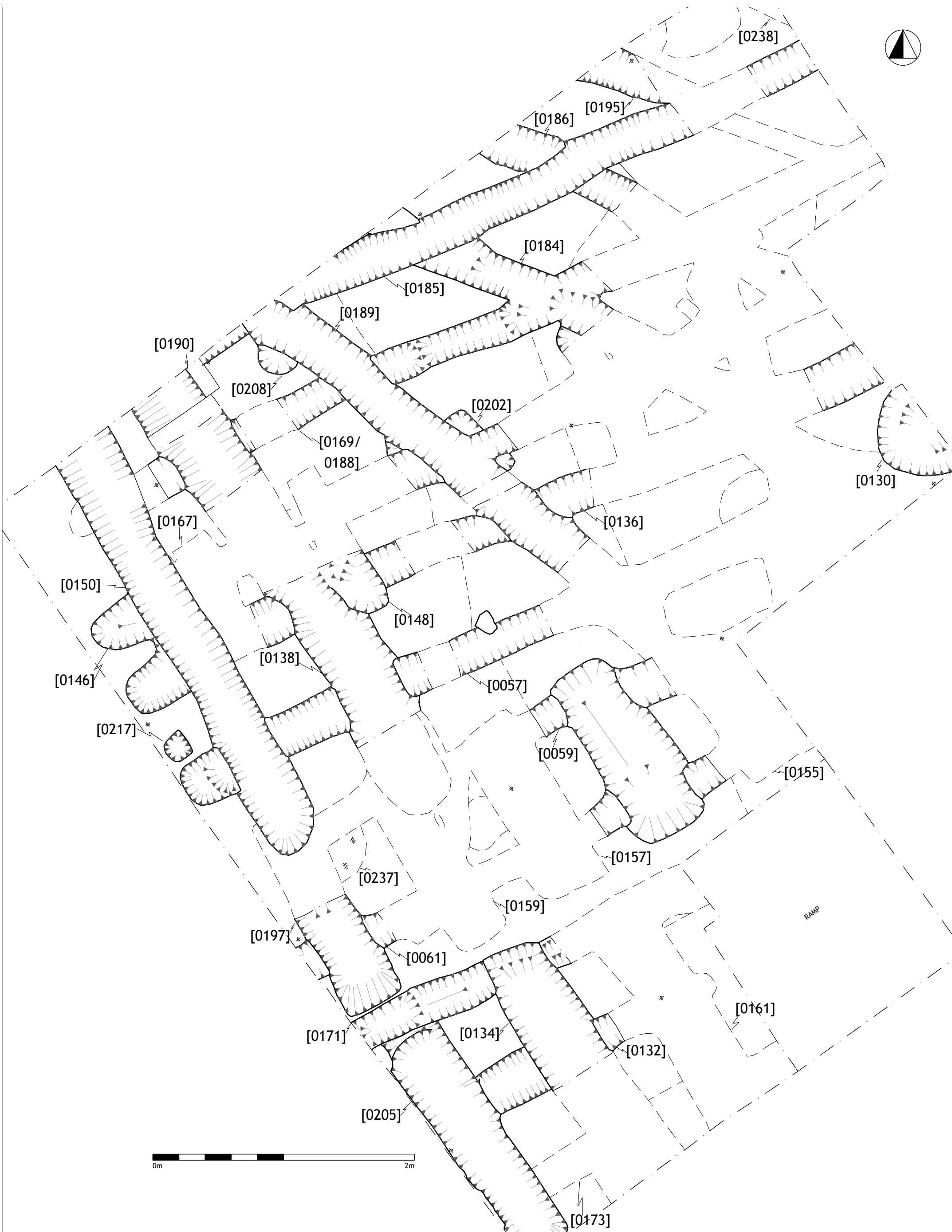


Figure 31
South West Facing Section of [0057]
INT 07

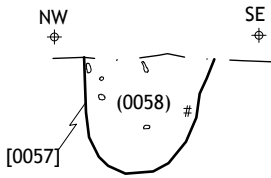


Figure 32
South East Facing Section of [0150]
INT 07

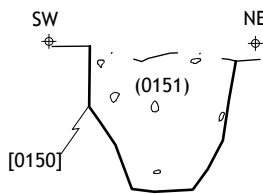


Figure 33
North East Facing Section of [0057]
INT 07

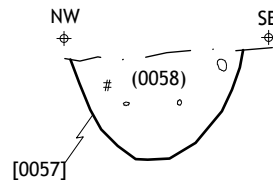


Figure 34
West Facing Section of [0184]
INT 09

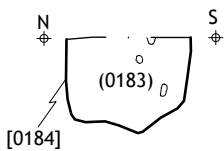


Figure 35
North East Facing Section of [0185]
INT 09

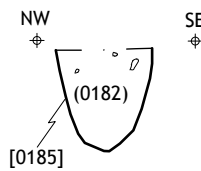


Figure 36
East Facing Section of [0185]
INT 09

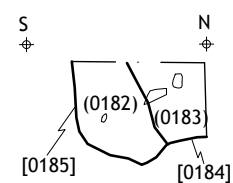


Figure 37
South West Facing Section of [0185]
INT 10

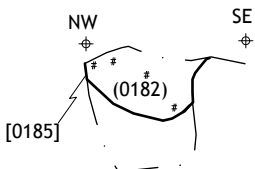


Figure 38
North East Facing Section of [0186]
INT 10

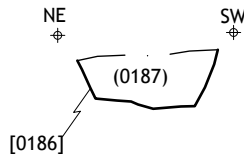


Figure 39
South West Facing Section of [0185]
INT 10

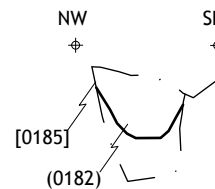


Figure 40
North East Facing Section of [0132]
INT 02

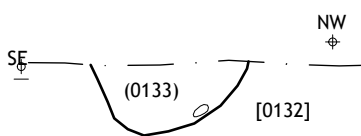


Figure 41
South West Facing Section of [0171]
INT 02

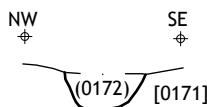


Figure 42
North West Facing Section of [0134]
INT 02

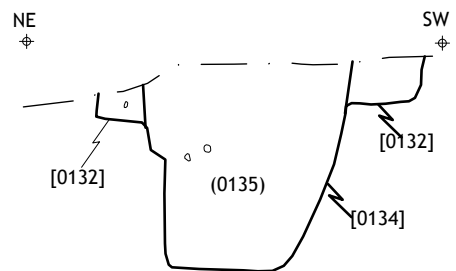


Figure 43
North East Facing Section of [0171]
INT 02

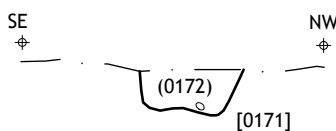


Figure 44
South West Facing Section of [0132]
INT 02

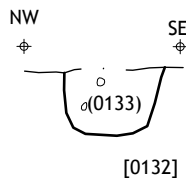


Figure 45
South East Facing Section of [0150]
INT 04

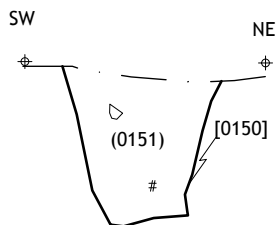


Figure 46
North West Facing Section of [0150]
INT 04

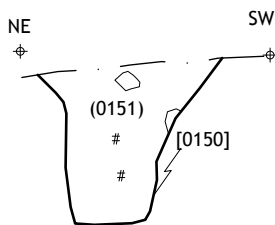


Figure 47
South East Facing Section of [0184]
INT 12

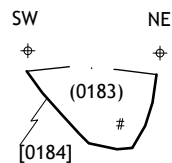


Figure 48
South West Facing Section of [0188]
INT 12

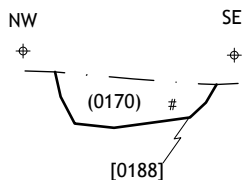


Figure 49
North Facing Section of [0184] + [0199]
INT 12

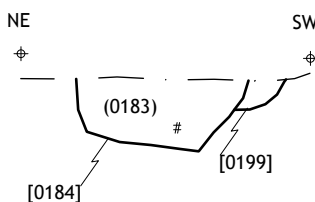


Figure 50
North East Facing Section of [0188]
INT 12

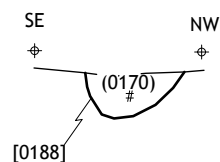


Figure 51
South West Facing Section of [0138] + [0148]
INT 03

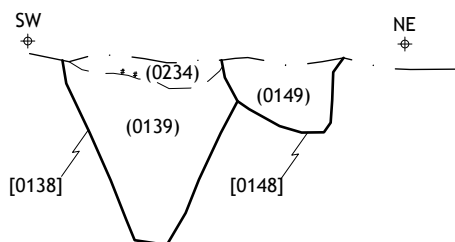


Figure 52
South West Facing Section of [0136]
INT 03

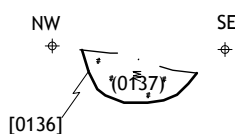


Figure 53
North East Facing Section of [0136]
INT 03

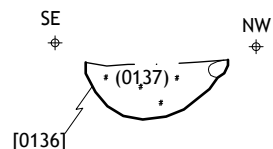


Figure 54
North East Facing Section of [0057]
INT 17

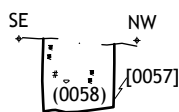


Figure 55
South West Facing Section of [0057]
INT 17

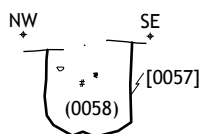
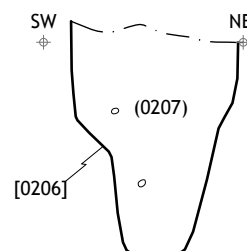


Figure 56
North West Facing Section of [0206]/ [0150] INT 05



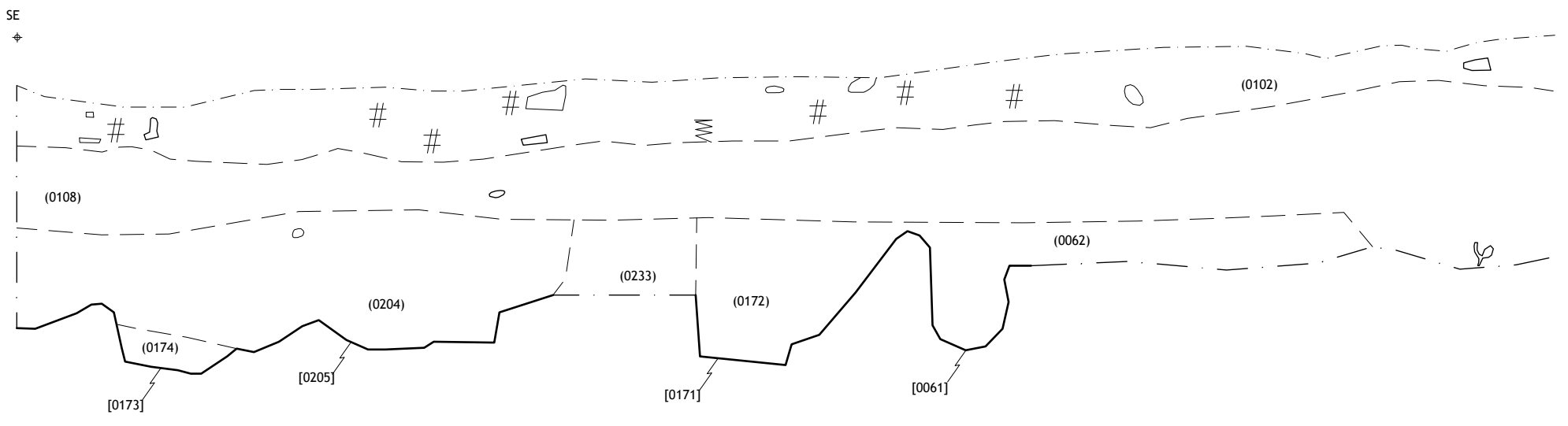


Figure 57
East Facing Section of [0173], [0205], [0171], [0061] + [0108]
Area 4

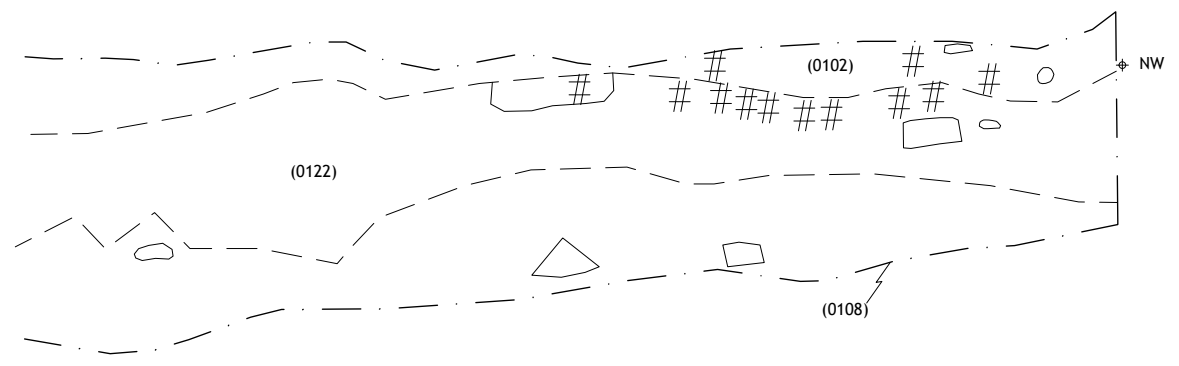


Figure 58
south East Facing Section
Area 05

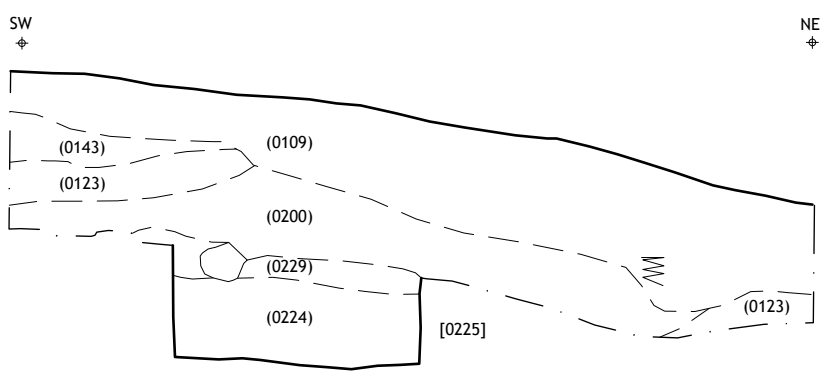


Figure 59
South West Facing Section
Area 05

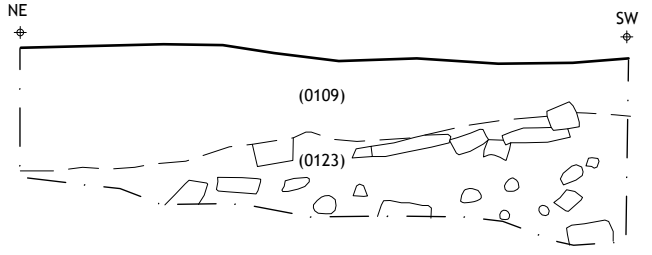


Figure 60
South East Facing Section
Area 06

Figure 61
North East Facing Section
Area 06

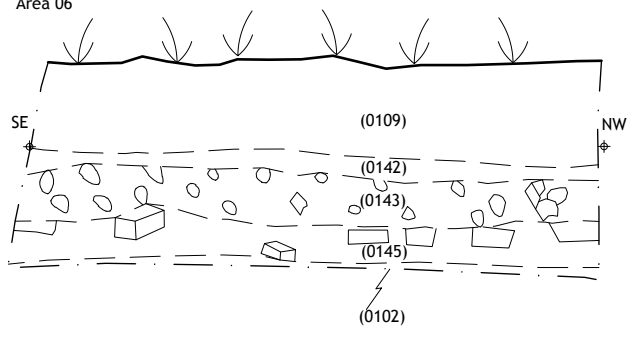
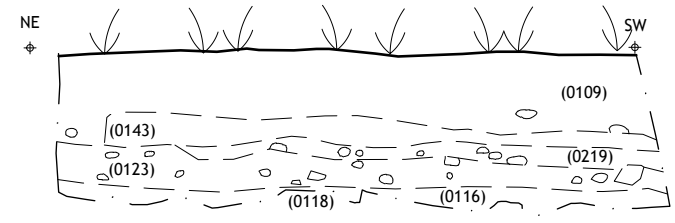
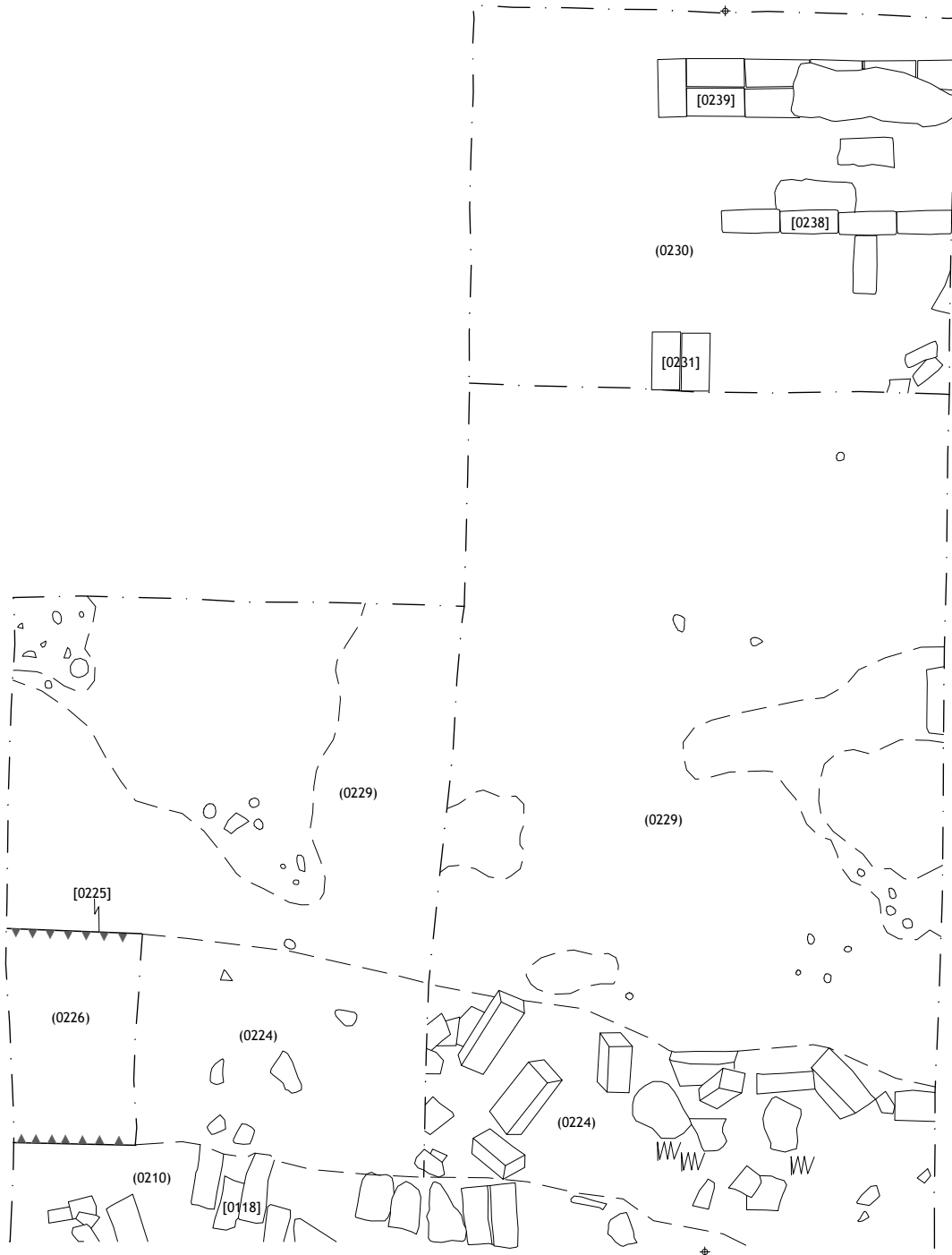


Figure 62
South West Facing Section
Area 06



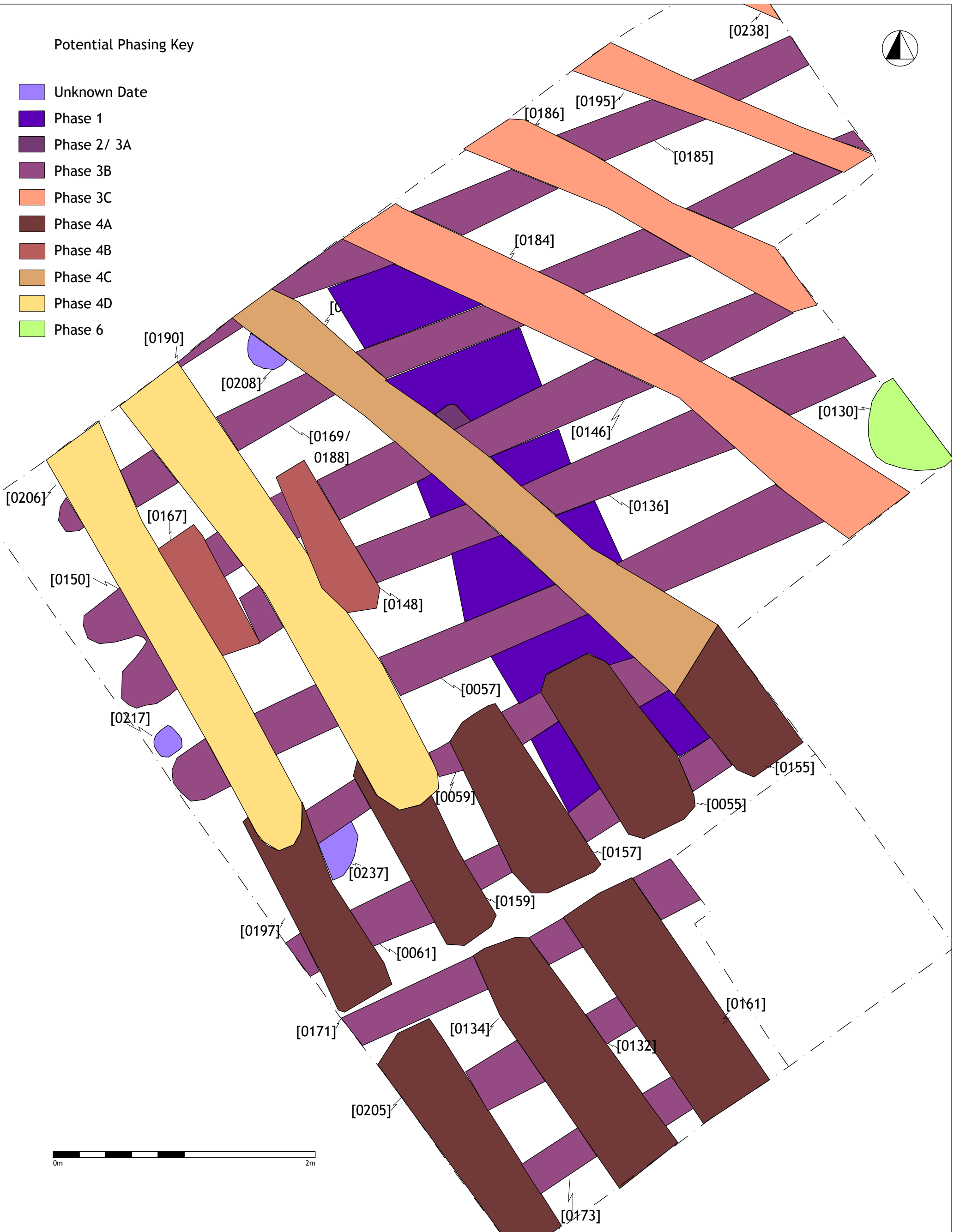


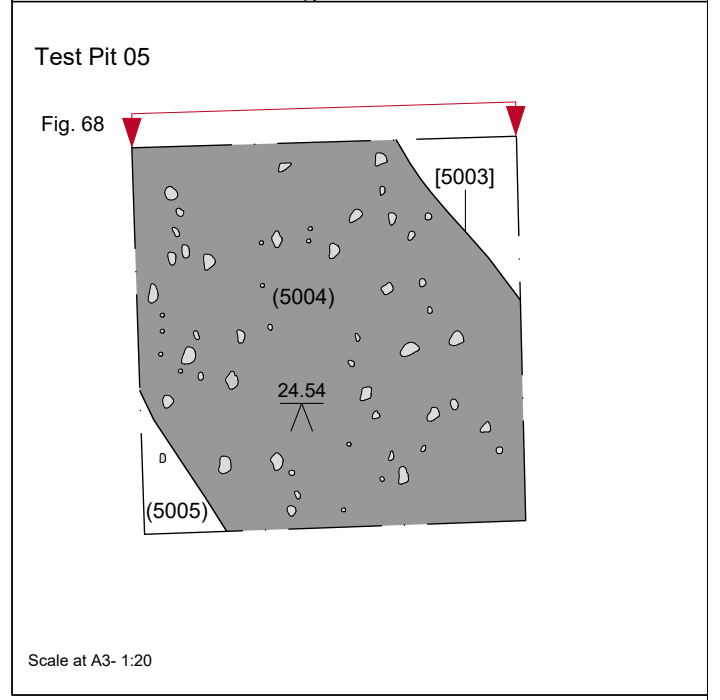
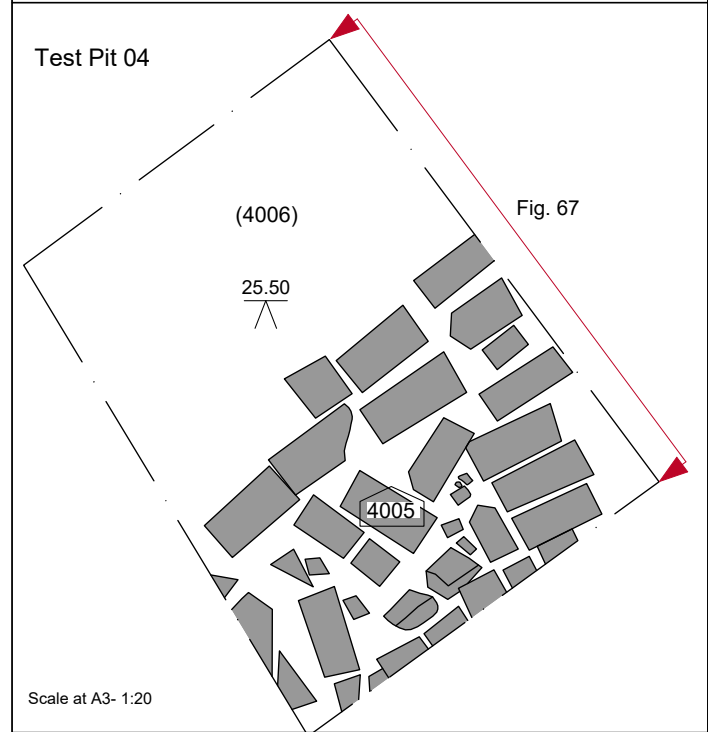
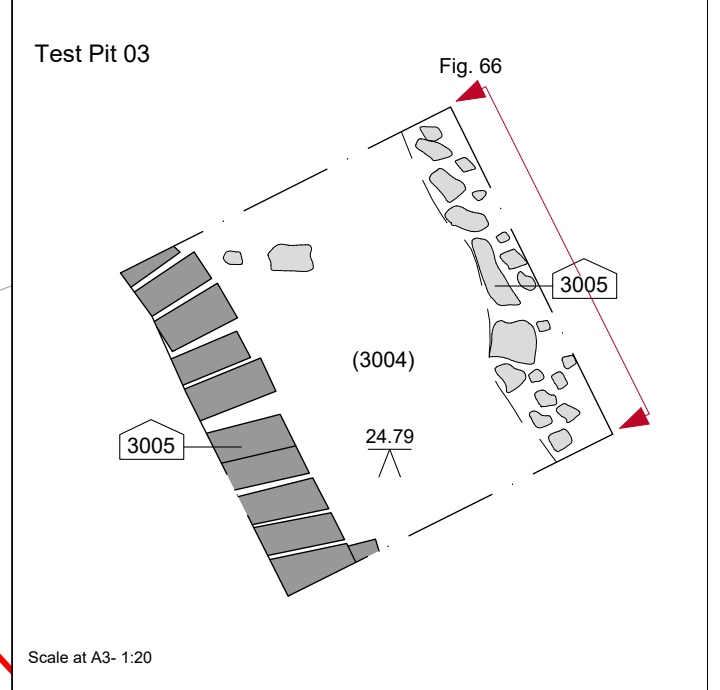
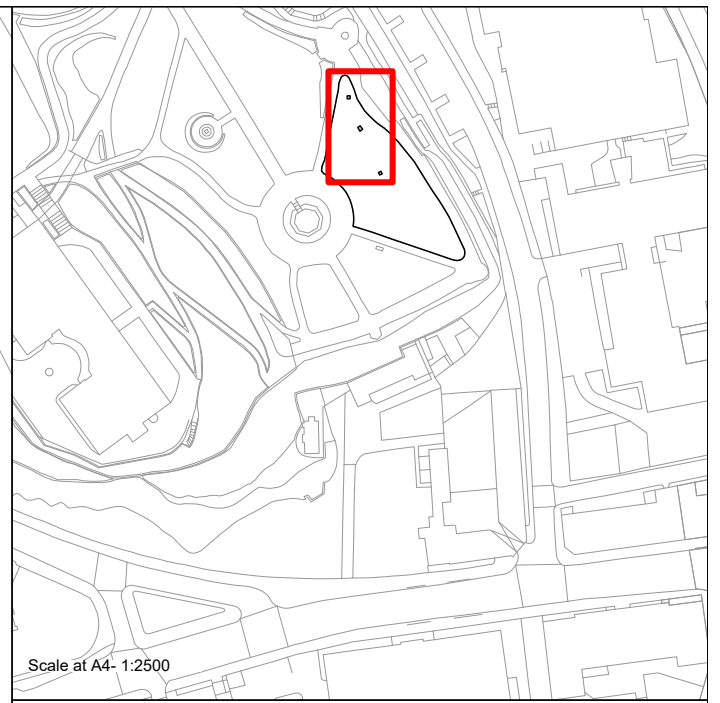
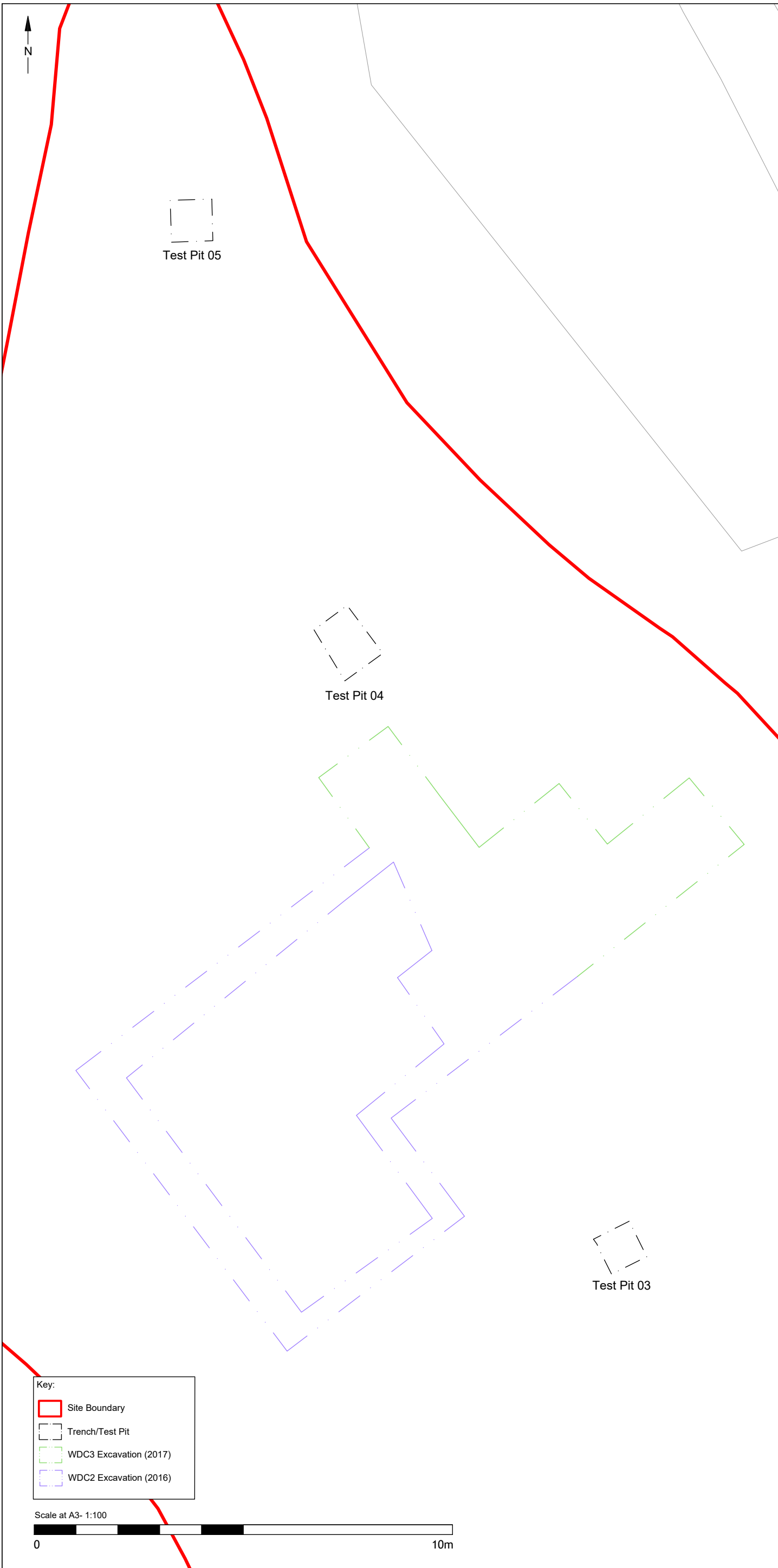
Continuation of surface [0118] recorded by photogrammetry

Potential Phasing Key



- Unknown Date
- Phase 1
- Phase 2/ 3A
- Phase 3B
- Phase 3C
- Phase 4A
- Phase 4B
- Phase 4C
- Phase 4D
- Phase 6





Key:

- Site Boundary
- Trench/Test Pit
- WDC3 Excavation (2017)
- WDC2 Excavation (2016)



Figure 66
South West Facing Section Of Test Pit 03

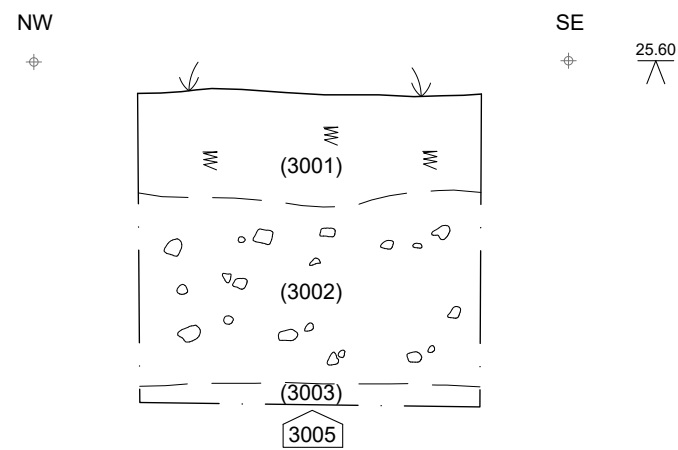


Figure 67
South West Facing Section Of Test Pit 04

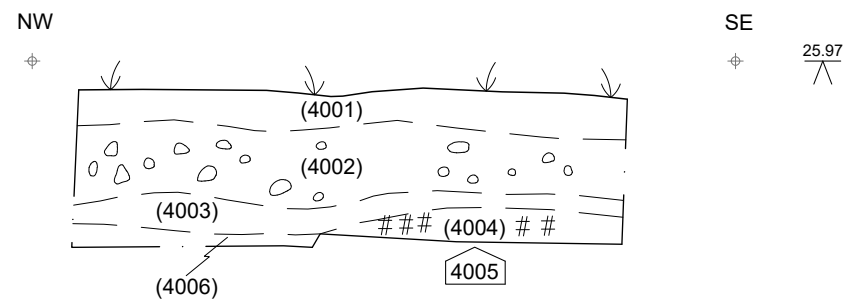
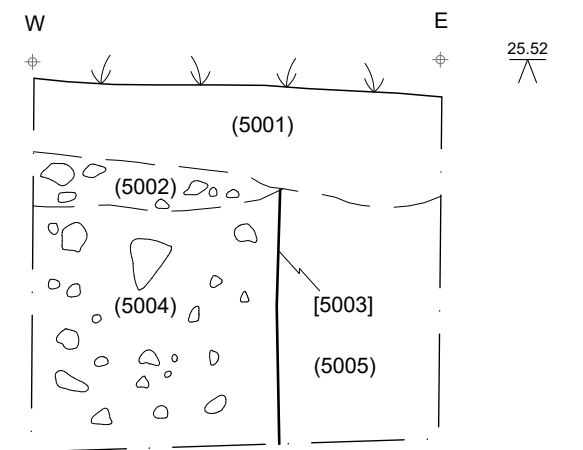


Figure 68
South Facing Section Of Test Pit 05



Appendix 1: Context list

Context No's 2015	Category	Description
0001	Layer	Dark grey brown sand silt topsoil above late 19 th C landscaping
0002	Layer	Light brown sand levelling deposit
0003	Cut	Pipe trench
0004	Layer	Mid brown grey sand silt landscaping layer
0005	Cut	Subrounded waste pit above pipe trench [0015]
0006	Layer	Light brown grey silt sand landscaping layer
0007	Fill	Mid-dark brown grey sand silt fill of [0003]
0008	Layer	Light grey pebbly silt sand
0009	Fill	Same as (0024)
0010	Fill	Mid brown grey silt sand fill of [0005]
0011	Fill	Mid grey yellow silt sand fill of [0005] containing large rubble inclusions
0012	Layer	Made ground
0013	Fill	Basal grey silt sand fill of [0003]
0014	Layer	Light brown yellow silt sand levelling deposit
0015	Cut	Vertical cut for pipe
0016	Fill	Mid brown grey sand silt fill of [0015]
0017	Layer	Made ground
0018	Layer	Made ground
0019	Cut	Furrow
0020	Cut	Square cut of pit
0021	Fill	Dark brown grey sand silt fill of [0020]
0022	Layer	Made ground
0023	Fill	Concrete pad within pit [0020]
0024	Fill	Basal fill of pipe trench [0015], loose yellow sand below pipe, bedding for pipe
0025	Deposit	Pipe in [0015]
0026	Fill	Mid- dark silt fill of [0015]
0027	Cut	Same as [0015]
0028	Layer	Friable light grey sand silt
0029	Layer	Mid-dark grey sand silt with yellow sand mottles, 19 th C. allotment layer
0030	Fill	Mid grey secondary silt sand fill of [0003]
0031	Cut	Even pit cut in section
0032	Fill	Mid-dark grey brown silt with yellow mottles
0033	Layer	Same as (0041)
0034	Layer	Mid-light grey silt sand
0035	Layer	Loose dark grey silt sand landscaping layer
0036	Layer	Same as (0043)
0037	Cut	Merging edge of 0036 and 0038
0038	Fill	Same as (0048)
0039	Layer	Mid – dark grey very modern subsoil
0040	Layer	Mid brown yellow silt sand levelling deposit
0041	Layer	Light brown sand levelling deposit
0042	Layer	Loose dark grey silt sand landscaping layer
0043	Layer	Orange yellow sand landscaping deposit
0044	Layer	Made ground
0045	Layer	Light brown sand levelling deposit
0046	Layer	Loose dark grey silt sand landscaping layer
0047	Layer	Orange yellow sand landscaping deposit
0048	Layer	Mid yellow grey silt sand landscaping deposit
0049	Layer	Dark greyish brown sand

Appendix 1: Context list

0050	Layer	Mid yellow orange sand lens within [(0049)
0051	Cut	N-S linear ditch/ subrounded trough
0052	Cut	N-S linear/ subrounded trough
0053	Fill	Dark brown grey sand silt fill of [0051]
0054	Fill	Dark grey brown sand silt fill of [0052]
0055	Cut	N-S subrounded trough
0056	Fill	Friable Mid-dark brown grey sand silt fill of[0055]
0057	Cut	Cut of thin E-W linear allotment/ garden feature, running parallel with nine other linear features, possibly cut by [0052/ 0138]
0058	Fill	Mid-dark brown grey sand silt fill of[0057]
0059	Cut	Cut of thin E-W linear allotment/ garden feature, running parallel with nine other linear features, possibly cut by [0055]
0060	Fill	Mid-dark brown grey sand silt fill of[0059]
0061	Cut	Cut of thin E-W linear allotment/ garden feature, running parallel with nine other linear features, possibly cut by [0055]
0062	Fill	Friable Mid-dark brown grey sand silt fill of[0061]
0063	Layer	Friable mid yellow brown silt sand subsoil cut by linear and trough features
Context No's 2016		
0100	Structure	N/S aligned linear arrangement of brick and stones
0101	Deposit	Unstratified and backfilled spoil
0102	Layer	Grey brown sandy silt, 19 th C. allotment layer, same as (0029)
0103	Cut	N/S aligned furrow in (0102)
0104	Cut	Roughly N/S aligned furrow in (0102)
0105	Cut	Roughly N/S aligned furrow in (0102)
0106	Deposit	Red orange sand levelling deposit, same as (0107)
0107	Deposit	Red orange sand levelling deposit, same as (0107)
0108	Layer	Dark grey brown silt sand, below 19 th C allotment layer (0102)
0109	Layer	Same as (0001)
0110	Layer	Same as (0002) (0041) and (0045)
0111	Layer	Same as (0035), (0042) and (0046)
0112	Layer	Same as (0043) and (0047)
0113	Layer	Same as (0048)
0114	Layer	Friable pink orange silt sand levelling deposit
0115	Layer	Light orange brown silt sand levelling deposit
0116	Layer	Friable mid black brown and light grey silt sand and clinker
0117	Layer	Same as (0116)
0118	Deposit	Rubble layer with some aligned brick, demolition.
0119	Layer	Firm black clinker
0120	Layer	Dark yellow brown silt sand
0121	Fill	Sand and pebble fill of gully [0122]
0122	Cut	Shallow gully
0123	Layer	Mid yellow brown sand and sandstone fragments
0124	Deposit	Orangey red clay below (0102)
0125	Structure	Not in situ flower bed edging tiles
0126	Structure	Square brick structure
0127	Fill	Mid yellow brown silt sand fill of [0126]
0128	Layer	Mid orange brown sand and sandstone fragments
0129	Layer	Dark brown sand site above structural remains (0118)
0130	Cut	Sub rounded cut of garden waste pit
0131	Fill	Dark grey brown sand silt fill of [0130]
0132	Cut	Cut of thin E-W linear allotment/ garden feature, running parallel with nine other linear features, cut by [0134]

Appendix 1: Context list

0133	Fill	Dark brown grey sand silt fill of [0132]
0134	Cut	Same as [0051]
0135	Fill	Same as (0053)
0136	Cut	Cut of thin E-W linear allotment/ garden feature, running parallel with nine other linear features, cut by [0150]
0137	Fill	Dark brown grey sand silt fill of [0136]
0138	Cut	Same as [0052]
0139	Fill	Same as (0054)
0140	Layer	Loose mid orange brown grey rubble sand landscaping layer
0141	Layer	Loose mid-dark brown sand silt redeposited demolition rubble
0142	Layer	Friable mid brown sand silt redeposited landscaping
0143	Layer	Loose mortar, stones, silt sand redeposited demolition
0144	Layer	Friable mid grey brown sand silt later subsoil remains
0145	Layer	Friable dark brown sand silt subsoil
0146	Cut	Cut of thin E-W linear allotment/ garden feature, running parallel with nine other linear features, cut by [0150]
0147	Fill	Dark brown grey, yellow mottled sand silt fill of [0146]
0148	Cut	Uneven cut of badger set/ fox den, containing fox/ dog bones
0149	Fill	Mid-dark brown grey silt sand fill of [0148]
0150	Cut	N-S linear cutting [0136] and [0146]
0151	Fill	Loose dark grey brown sand silt
0152	Layer	Same as (0039)
0153	Structure	Flagstones and aligned bricks embedded in (0118)
0154	Fill	Mid-light brown silt sand, fill of [0179]
0155	Cut	Potential NW-SE subrounded trough
0156	Fill	Friable mid-dark brown grey sand silt fill of [0155]
0157	Cut	Potential NW-SE subrounded trough
0158	Fill	Friable mid-dark brown grey sand silt fill of [0157]
0159	Cut	Potential NW-SE subrounded trough
0160	Fill	Friable mid-dark brown grey sand silt fill of [0159]
0161	Cut	Potential NW-SE subrounded trough
0162	Fill	Friable mid-dark brown grey sand silt fill of [0161]
0163	Cut	Potential NW-SE subrounded trough
0164	Fill	Friable mid-dark brown grey sand silt fill of [0163]
0165	Cut	Potential NW-SE subrounded trough
0166	Fill	Friable mid-dark brown grey sand silt fill of [0165]
0167	Cut	Uneven cut of potential animal den
0168	Fill	Friable mid-dark brown grey sand silt fill of [0167]
0169	Cut	Cut of thin E-W linear allotment/ garden feature
0170	Fill	Dark brown grey, sand silt fill of [0169]
0171	Cut	Cut of thin E-W linear allotment/ garden feature
0172	Fill	Dark brown grey, sand silt fill of [0171]
0173	Cut	Cut of thin E-W linear allotment/ garden feature
0174	Fill	Dark brown grey, sand silt fill of [0173]
0175	Cut	Linear/ Trough
0176	Fill	Dark brown silt sand fill of [0175]
0177	Cut	Linear/ Trough
0178	Fill	Dark brown silt sand fill of [0177]
0179	Fill	Earlier curvilinear feature
Context No's 2017		
0180	Fill	Friable dark brown grey sand silt fill INT 06
0181	Fill	Friable dark brown grey sand silt fill INT 08
0182	Fill	Friable dark brown grey sand silt fill gully INT 09 and 10

Appendix 1: Context list

0183	Fill	Friable dark brown grey sand silt fill ditch INT 09
0184	Cut	Cut of ditch filled by (0183) INT 09
0185	Cut	Cut of gully filled by (0182)
0186	Cut	Cut of ditch filled by (0187)
0187	Fill	Friable dark grey brown sand silt fill of (0186)
0188	Cut	Cut of gully filled by (0170), same as [0169]
0189	Cut	Cut of ditch filled by (0181)
0190	Cut	Same as [0138] in INT 06
0191	Fill	Compact ash and clinker fill of [0193]
0192	Fill	Dark grey black loose sandy silt with mortar flecks above [0222]
0193	Cut	Shallow modern ditch above gully [0122]
0194	Layer	Subsoil Area 5
0195	Cut	Cut of NW- SE running ditch
0196	Fill	Fill of [0195]
0197	Cut	Trough in INT 13 with [0061]
0198	Layer	Layer under [0126]
0199	Cut	Possible pit associated with [0184] in INT 12
0200	Layer	Medium Yellow brown coarse sand
0201	Fill	Yellow brown silt sand below [0100]
0202	Cut	Subangular pit/ post hole
0203	Fill	Fill of [0202]
0204	Fill	Fill of [0205]
0205	Cut	Ditch or trough in the south corner of site
0206	Cut	Deep cut regular ditch – same as [0150]
0207	Fill	Fill of [0206]
0208	Cut	Rounded posthole INT 08
0209	Fill	Fill of [0197] in INT 13
0210	Layer	Possible bedding layer for bricks [0118]
0211	Layer	Mixed rubble layer with coarse yellow sand
0212	Layer	Mottled medium brown silty sand and sandstone
0213	Layer	Mid-dark brown silt Area 6
0214	Fill	Fill of possible posthole Area 4 extension
0215	Fill	Fill of possible posthole Area 4 extension
0216	Fill	Fill of possible gully Area 4 extension
0217	Cut	Square post hole
0218	Fill	Black brown silt in posthole [0217]
0219	Layer	Dark grey coarse sand only visible in section
0220	Cut	Construction cut for wall [0222]
0221	Fill	Light yellow brown sand silt fill of [0220]
0222	Structure	Brick wall behind [0126]
0223	Fill	Yellow brown sand fill of [0217]
0224	Fill	Fill of modern ditch cutting [0118]
0225	Cut	Cut of modern ditch cutting [0118]
0226	Layer	Yellow coarse silt sand Area 5
0227	Fill	Orange brown sand
0228	Layer	Dark brown layer below (0210) and above (0226)
0229	Fill	Mottled yellow sand
0230	Layer	Dark brown gritty silt below (0229)
0231	Structure	Bricks orientated NE-SW in Area 5
0232	Layer	Dark brown layer visible in NE section
0233	Layer	Mixed Organic/ brown layer visible in NE section
0234	Fill	Upper fill of [0138] above (0139)
0235	Fill	Potential fill of a subrounded pit in Area 4 extension
0236	Fill	Charcoal fill of pit [0237] cut by [0197] and [0059]

Appendix 1: Context list

0237	Cut	Cut of pit
0238	Structure	Brick wall in Area 5
0239	Structure	Mortared brick wall in Area 5
0240	Cut	Cut of ditch in NE corner, fill (0216)
0241	Fill	Dark grey fill of [0199]
Context No's 2018		
3001	Layer	Dark grey brown sand silt topsoil
3002	Deposit	Yellow brown landscaping deposit
3003	Layer	Dark brown buried topsoil
3004	Layer	Pea-gravel/ tarmac surface
3005	Structure	Brick surface
4001	Layer	Dark grey brown sand silt topsoil
4002	Deposit	Yellow brown landscaping deposit
4003	Layer	Mixed sand layer
4004	Deposit	Ash/ clinker/ pea gravel
4005	Structure	Brick surface/ structure, likely to be same as (3005)
4006	Layer	Dark brown grey silt
5001	Layer	Dark grey brown sand silt topsoil
5002	Deposit	Light brown-grey silt sand and modern stone deposit
5003	Cut	Vertical sided cut
5004	Fill	loose mid grey brown silt sand with slate fragments
5005	Layer	mid-dark orangey brown silt sand subsoil

Appendix 2: Written Scheme of Investigation 2017

Nottingham Castle, Outer Bailey

NOTTINGHAM

We Dig The Castle! Training Excavation

Written Scheme of Investigation.

2017

TPA Project Code WDC3

TPA Report no 080/2017

Prepared by Laura Binns

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Prepared by	Laura Binns Project Officer
Date	02/06/17
Approved by	Gareth Davies – Head of Operations
Signed	
Date	
Report Number	080/2017
Status	WSI

Disclaimer

This Written Scheme of Investigation has been prepared solely for the person/party which commissioned it and for the specifically titled project or named part thereof referred to in the WSI. The WSI should not be relied upon or used for any other project by the commissioning person/party without first obtaining independent verification as to its suitability for such other project, and obtaining the prior written approval of York Archaeological Trust for Excavation and Research Limited ("YAT") (trading as Trent & Peak Archaeology) YAT accepts no responsibility or liability for the consequences of this WSI being relied upon or used for any purpose other than the purpose for which it was specifically commissioned. Nobody is entitled to rely upon this WSI other than the person/party which commissioned it. YAT accepts no responsibility or liability for any use of or reliance upon this WSI by anybody other than the commissioning person/party.

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Nottingham Castle, Outer Bailey.

We Dig The Castle! Training Excavation

Written Scheme of Investigation (WSI)

1. BACKGROUND

Site Name: Nottingham Castle Outer Bailey, Nottingham.

NGR: SK 56985 39485

Scheduled Monument Number: 1006382.

Client: Nottingham City Council.

Brief: N/A.

Geology: Nottingham Castle Sandstone Formation with superficial Head deposits.

1.1. Context and opportunity

1.1.1. The historical site of Nottingham Castle currently consists of a walled area containing landscaped grounds and the "Ducal Palace", arguably the finest Palladian mansion of its type in the country, situated above a network of caves, on the site of the medieval castle.

1.1.2. The "Nottingham City Council Museums and Galleries Service Strategic Plan 2014–2018" establishes the context within which a community-based, research excavation of the Outer bailey would be situated (36):

The development of visitor infrastructure included within this Strategic Plan, especially the major project for Nottingham Castle, means that the City is ideally placed to achieve the same benefits as other towns and cities with a rich historical heritage. The benefits of such investment in the historic environment are identified in the English Heritage report The Impact of Historic Environment Regeneration.

The Castle redevelopment will also achieve wider social benefits in line with and the case studies included in the Social Impacts Heritage Led Regeneration Report published by the Architectural Heritage Fund and partners [Victoria Baths Manchester and Wilton's Music Hall, London]. These illustrate the benefits of an audited track record of supporting community involvement, engaging with hard to reach groups, building local pride and creating volunteering and job opportunities. These projects are both located in inner city locations and offer transferable learning opportunities for Nottingham and the Nottingham Castle project in particular.

1.1.3. In the context of the Nottingham City Council Museums and Galleries Service Strategic Plan, this project has been established as part of an initiative to better understand the Nottingham Castle Scheduled Monument and to enhance its role as a focus for Cultural Heritage within the City and the "Greater Nottingham" area.

1.2. Historical background

1.2.1. Originally founded in 1068 on the orders of William the Conqueror, by the later Middle Ages Nottingham Castle was the most important royal castle outside of London. It was the scene of many historically important events including its recapture for the crown by Richard I following his return from the Third Crusade in 1194. Queen Isabella [the wife of Edward II] and her lover Roger, Earl Mortimer were captured and overthrown in 1330 by Edward III, and the Castle was the seat of government for most of the reign of Richard III, who left the Castle with his army of 12,000 troops to meet the challenge of Henry Tudor at

Bosworth in 1485.

- 1.2.2. In 1642, King Charles I raised his Standard at Nottingham Castle, effectively starting the English Civil War as he sought to exert supreme authority of the Crown over Parliament. The Castle was then held successfully throughout the War by a Parliamentary garrison under the command of Colonel Hutchinson, whose wife maintained a diary account of the siege.
- 1.2.3. Following the execution of King Charles, the Castle was still considered so formidable and the risk of its seizure by a hostile force or tyrant so problematic that Parliament, meeting at the Castle in 1652, decreed that it be completely destroyed and the mediaeval castle effectively disappeared.
- 1.2.4. Following the Restoration, the site was sold to William Cavendish, first Duke of Newcastle and exiled Royalist commander, who had the site remodelled. The Duke did not, however, live to see his palace completed in 1679 and his subsequent heirs left the site empty for much of its remaining history.
- 1.2.5. In the early 19th Century, the 4th Duke opposed popular cries for parliamentary reform and, following the Duke's reported opposition to the Reform Act in the House of Lords, the Castle was burned down by radicals during a night of riots on the 10th October 1831. The first Great Reform Act followed in the following year, the events at Nottingham persuading Parliament, and the House of Lords especially, of the strength of popular feeling for reform.
- 1.2.6. The building lay, a burned-out ruin, until the 1870s when the Director of Nottingham Art School, along with Henry Cole, the evangelical first Director of the Victoria & Albert Museum, supported the Corporation of Nottingham in their aim to restore the palace as a public museum. On 3rd July 1878, the Museum was formally opened by the Prince and Princess of Wales as the first municipal art gallery and museum outside London with a collection of art and design objects designed to mirror the Victoria and Albert Museum and inspire high quality design and production for the lace industry.

1.3. Previous Archaeological Evidence

- 1.3.1. Prior to the first season of *We Dig the Castle!*, carried out by Trent & Peak Archaeology during the summer of 2015, the Outer Bailey of Nottingham Castle had been subject to a programme of geophysical survey undertaken by Trent & Peak. An extensive survey of the southeastern part of the Outer Bailey was undertaken in April 2014 and combined geomagnetic, earth-resistance, and ground-penetrating radar survey to produce an image of buried archaeological features and provide some information about the location and depth of the interface between superficial deposits and the bedrock (Johnson & Richley 2014).
- 1.3.2. The initial season of *We Dig the Castle!* excavations revealed that c.1000mm of ground in the area had been deposited during the early part of the 20th century as part of remodelling and landscaping. The soils which formed this made ground contained a broad mix of finds ranging from the Saxo-Norman period through to the 19th century. Allotments of a 19th century date were also identified, with a series of deep cut features c.400m below the cultivation horizon. These features formed a regular pattern and possibly related to the ornamental gardens that were located in the area during the 17th and 18th century.
- 1.3.3. During the second season of *We Dig the Castle!*, the excavations concentrated on exposing more of these features below the cultivation horizon by extending the dig to the northeast of the 2015 season. Up to 34 features were exposed and a potential allotment building at a depth of .800mm. The structure was left in situ ready for the 2017 season.
- 1.3.4. Prior to the geophysical survey of 2014, some restricted areas within the Outer Bailey were investigated through archaeological watching briefs on the installation of services and as part of archaeological mitigation works relating to the development of disabled toilet facilities adjacent to the gatehouse entrance to the Castle (Gilbert 2001, Kinsley 2012).
- 1.3.5. In addition to these specific interventions within the Outer Bailey, an impact assessment detailing the known heritage assets and interventions within the bounds of the castle was undertaken as part of the City Council bid for a Heritage Lottery funded redevelopment of the site (Kinsley 2012a).
- 1.3.6. The original earthwork castle was constructed in 1067–8 under the instruction of William the Conqueror. The earth and timber defences may have covered the entire extent of the

later stone replacements, but this is uncertain (Drage 1989, 36, 43). The earth and timber defences of the Upper Bailey were replaced by a stone curtain wall in 1171–3. A stone keep was in existence by 1188 and a gate tower was constructed in 1373–7. The Middle Bailey earthwork defences were replaced by a stone curtain wall in 1171–89. A great hall and chapel are recorded from the 1230's, and major rebuilding (Richards Tower and the State Apartments) occurred in 1476–80. The Outer Bailey was captured during a siege in 1194. A barbican may have been constructed at the Outer Gatehouse in 1212–13 (Drage 1989, 43) and from 1251 the Outer Gatehouse was rebuilt in stone. A stone curtain wall then replaced the Outer Bailey earthwork and palisade and interval towers possibly during the 1270's (Kinsley 2012a, Appendix B, 2.1). One of the numerous caves cut into the sandstone rock beneath the Castle, Mortimer's Hole, is first documented by Leland in 1540 (Drage, 1989, 138).

1.4. Community archaeology

- 1.4.1. Trent & Peak Archaeology have a strong track-record of involvement in community-based archaeological projects within the City of Nottingham and its surrounding boroughs, including recent projects at Lenton Priory, St Ann's Allotments, and Toton Manor Park.
- 1.4.2. In partnership with Nottingham City Council Museums and Galleries Service, and in accordance with the Strategic Plan for Heritage in the City we are aiming to provide an opportunity for local people to participate in the archaeological investigation of Nottingham Castle and thereby gain a closer connection to the history of the city in which they live.

1.5. Archaeology Live!

- 1.5.1. Archaeology in Britain has had a long tradition of public participation, often with local amateur groups assisting (if not driving) important fieldwork projects. However, the rise of a professional workforce over the past 30 years has reduced opportunities for amateur involvement in some contexts, notably urban areas. Since 2010 the conduct of development-led archaeology has been informed by *Planning Policy Statement 5: Planning for the Historic Environment* (PPS5) and subsequently the *National Planning Policy Framework* (NPPF) which favour the preservation of archaeological remains *in situ*, and, failing this, their preservation by record. The process of development-led archaeology has been criticised, not always fairly, for putting the needs of development first, at the expense of archaeological research and public education. However, fieldwork undertaken under the provision of a commercial contract is generally regarded as inappropriate for amateur involvement. Much development-led fieldwork has not even been accessible to the public as visitors.
- 1.5.2. Fieldwork training is routinely provided for archaeology undergraduates and a limited number of people entering the profession, although opportunities to study with professional organisations on high quality training excavations are limited. As a result students often have insufficient practical understanding of fieldwork techniques. The archaeological profession is in danger of suffering as a result. In the opinion of many it has already started to see a decline in traditional field-based skills, primarily due to a lack of access to complicated archaeological deposits on which for advanced training to take place.
- 1.5.3. Most excavations in which members of the public can participate provide little in the way of intensive and structured training. One consequence of this situation is that excavation and recording carried out by amateur groups may be of variable quality, often not attaining modern high standards. At the same time public interest in archaeology is currently at a high level, as indicated in the audiences for such television series as *Time Team* and *Meet the Ancestors*.
- 1.5.4. The perceived shortage of opportunities for public involvement in archaeology has led English Heritage, for example in *Exploring Our Past* (1998), to stress the importance of providing frameworks and opportunities for education and public participation in archaeology. The *Implementation Plan for Exploring Our Past* (1998), Section 10.0 stresses the need to '*provide a more extensive educational service to the community*'.

- 1.5.5. Section 11.0 states:
'Archaeological excavation is extremely important in promoting public interest and enthusiasm, and we will ensure that projects undertaken by ourselves, and those commissioned from others, are planned to maximise the local and regional impact of the work, and opportunities for participation.'
- 1.5.6. In Section 14.0 the importance of communicating archaeological skills to all sectors of the community is discussed. Sub-section 14.4 stresses the value of training schools that *'engage the public with excitement and provide opportunities for participation and training, at both an amateur and professional level'*.
- 1.5.7. The importance of the historic environment as a matter of public interest is confirmed in more recent English Heritage documentation, *Power of Place* states(English Heritage 2000, 23):
'People are interested in the historic environment. They want to learn about it. They want to help define it. They want their children to be taught about it. They want to be involved in decisions affecting it. They want to take part'.
- 1.5.8. Recommendation 8 of *Power of Place* is to *'place the historic environment at the heart of education'*, and Recommendation 9 is to *'remove barriers to access'*.
- 1.5.9. York Archaeological Trust takes the view that if the public are unable to participate actively in archaeology they will fail to be aware of the potential of archaeology to provide community benefit in respect of such areas as education, recreation, and tourism. Therefore, the education and engagement of the community is essential to support the conservation of heritage sites.

2. OBJECTIVES

2.1. *Archaeological objectives*

- 2.1.1. To continue targeted excavation of the Outer Bailey in order to further develop our understanding of the archaeological deposits and features present in the area adjacent to the curtain wall, south of previous excavations adjacent to the gatehouse and disabled WC.
- 2.1.2. To engage local volunteers in the archaeology of Nottingham Castle, to build relationships between the people of Nottingham and their cultural heritage.
- 2.1.3. To provide training to members of the local community in the processes and procedures of archaeological excavation and research.

To address the following specific research questions:

- 2.1.4. To undertake further investigation, below the 18th century horizon, in order to identify the presence and extent of any features associated with Medieval activity within the Outer Bailey and to understand the nature of that activity.
- 2.1.5. To determine the nature/construction of the curtain-wall and its relationship to deposits within the Outer bailey.
- 2.1.6. To continue to investigate the depth of material overlying the bedrock within the Outer Bailey, and to establish the profile of the bedrock.
- 2.1.7. To further identify the character of the material overlying the bedrock, how much of this material is deliberate landscaping and of what date? (EMH 9.5.2, EMH 7.4.1)
- 2.1.8. Has the Outer Bailey been stripped back to bedrock or are relict land surfaces preserved beneath later landscaping material? (EMH 9.5.2)
- 2.1.9. What further environmental evidence remains of the Medieval, post-medieval and pre-20th-century gardens or allotments? (EMH 8.1.4)
- 2.1.10. Does material evidence survive, within relict soils and/or cut into bedrock, of the Civil War-era fortification of the Castle within the Outer Bailey? (EMH 8.7.2)
- 2.1.11. Does material evidence survive within relict soils or cut into bedrock of known or unknown Medieval buildings within the Outer Bailey? (EMH 7.4.1)
- 2.1.12. Does material evidence survive within relict soils or cut into bedrock of pre-Mediaeval usage of the Castle Rock? (EMH 6.5.4).

Based on TPA report number 079/2017 the provisional aims of We Dig the Castle! 2017 are as follows:

- 2.1.13. Establish the age, function and relationships between the linear and oval features exposed at the end of 2016 season
- 2.1.14. Determine the extent of brick structural remains [0100] and (0118) to the east, establish its function prior to demolition and when this demolition occurred (Figure 2).
- 2.1.15. Establish the relationship between potential brick step [0126] and brick floor (0118) and wall [0100] to the east of the site.
- 2.1.16. Determine the depth of material overlying the bedrock within the Outer Bailey, and establish the profile of the bedrock

2.2. *East Midlands Heritage Research Agenda items*

The project relates to the following elements of the East Midlands Heritage Research Agenda and strategy

6.5.4 Early Mediaeval: *Inland towns, 'central places' and burhs. How did Nottingham develop during the Anglo-Saxon and Viking periods?*

7.4.1 High Mediaeval: *Castle, military sites and country houses. Was there continuity of location between castles and country houses, and are earlier structures concealed in later buildings?*

8.1.4 Post-Mediaeval: Urbanism: morphology, functions and buildings. What can studies of environmental data, artefacts and structural remains tell us about variations in diet, living conditions and status?

8.7.2 Post-Mediaeval: Battlefields and fortifications. How can we refine our knowledge of Civil War defences and siege works?

9.5.2 Modern: Estates, parks, gardens and woodland. What survives of country estates, parks and gardens, how are they distributed, and how should they be classified?

2.3. Synergies

2.3.1. The project provides synergies with the Strategic objectives of the Nottingham City Council Museums and Galleries Service Strategic Plan 2014–2018, in particular:

Section 2.1. Nottingham Castle

Section 3.2. Community

Section 3.4. Collaboration

Research Priority 3.1. Heritage of Nottingham and the Urban Archaeology Data; Nottingham Castle Archaeological Research Programme.

2.4. Proposed archaeological work

Archaeological Excavation

2.4.1. The proposal for 2017 is to re-open the c. 11m x 9m area excavated in 2016 with an additional extension (of dimensions to be determined by conditions on site, but not to exceed c. 4m x 7m) to the northeast of this area, towards the curtain wall of the Outer Bailey, to expose more of the potential allotment structure (Figure 1 and 2). The 2016 season area will be re-excavated by TPA staff prior to the start of the trainee timetable to the final depth of last year's works, which was marked by the placement of terram sheets over the exposed surfaces. Once the features revealed in 2016 have been excavated, the site will be stepped in by 1m before excavations continue through the remaining strata.

2.4.2. The extension area to the northeast will be hand excavated in order to further investigate the strata of the archaeological features within the Outer Bailey adjacent to the eastern curtain wall of the castle. It will be narrower than the 2016 trench to avoid the roots of two adjacent trees.

2.4.3. All works will be undertaken in accordance with the methodology defined in this Project Design/WSI and to standards defined by ClfA guidelines for recording of archaeological sites (2008a, 2008b).

2.4.4. The archaeological excavations will define the extent and nature of archaeological deposits and features. All archaeological features and deposits exposed during the excavation will be recorded, and excavated by hand where possible within the constraints of health/safety and time.

2.4.5. The above detailed elements will be reported upon in a single concise report, with recommendations for further work as necessary (MoRPHE 2008).

2.4.6. The report produced after each season of fieldwork will suffice as a stand-alone document detailing the works undertaken and an outline assessment of materials/finds recovered.

2.4.7. The report will also be used to inform a comprehensive report on the findings of the project to be completed once fieldwork within the area of excavation has been finally completed.

Trench Location

2.4.8. The trench will be located on the same footprint as that agreed for the 2016 season of excavation by the City Archaeologist and Historic England Regional Inspector. The trench will be extended to the northeast in order to establish the extent of the brick structural remains mentioned above in 2.1.14. The location of the trench extension for the 2017 season should be ratified by said parties on the basis of this document.

2.4.9. The trench will be located within the Ordnance Survey grid to a precision of 0.1m in the field by GPS/Total Station prior to excavation and its final positioning will take account of surface topography, services/safety requirements and all existing site features (fences, walls,

etc). It is proposed to retain some flexibility in the specific layout in order to respond to changing circumstances/conditions on the ground.

- 2.4.10. The rationale for trench location (Fig 1) is as follows: The 11m x 9m area excavated in 2016 with an additional extension c. 4m x 7m to the northeast of this area, (Figure 1) will be excavated in order to provide information about the nature and depth of structural features and deposits adjacent to the internal face of the wall.
- 2.4.11. The location proposed for the trench will provide the best possible opportunity to answer the research questions outlined above, whilst minimising the impact of excavations on the monument as a whole. This location also minimises disruption to visitors/events within the Castle.

3. METHODOLOGY

3.1. *General conditions*

- 3.1.1. All works will be undertaken in accordance with this Project Design/WSI as approved by the Nottingham City Archaeologist, the Historic England Regional Inspector, and to standards defined by ClfA guidelines for recording of archaeological sites (2008).

Staffing

- 3.1.2. The work will be undertaken by suitably qualified members of YAT/TPA (see Section 3.5 below) according to accepted archaeological practice and the 'Standards & Guidance' produced by the Chartered Institute for Archaeologists.

Commencement of the Excavation.

- 3.1.3. The excavations are anticipated to begin during the week of the 10th July 2017 for TPA staff and continue from the 17th July until the 18th August 2017 with trainees.

Services.

- 3.1.4. NCC will be responsible for carrying out service checks prior to groundworks, and will provide plans of all services within the development area.

Base maps.

- 3.1.5. The client is requested to supply copies (preferably digital) of base maps for Trent & Peak Archaeology to use in the report.

Report.

- 3.1.6. A record of the results, whether positive or not, will be made and presented in an appropriate report format to the City Archaeologist and Historic England Regional Inspector within 12 months of the completion of fieldwork. In the event of further archaeological excavation in subsequent years, this report will comprise a short interim statement of findings and assessment of finds, with full reporting and analysis being deferred to the end of all archaeological operations on the site. For further details of the report structure see below (*Detailed Specification of Archaeological Recording*).

Fencing.

- 3.1.7. NCC will be responsible for securing the site/area of excavation from unauthorised public access outside the opening hours of the Castle.

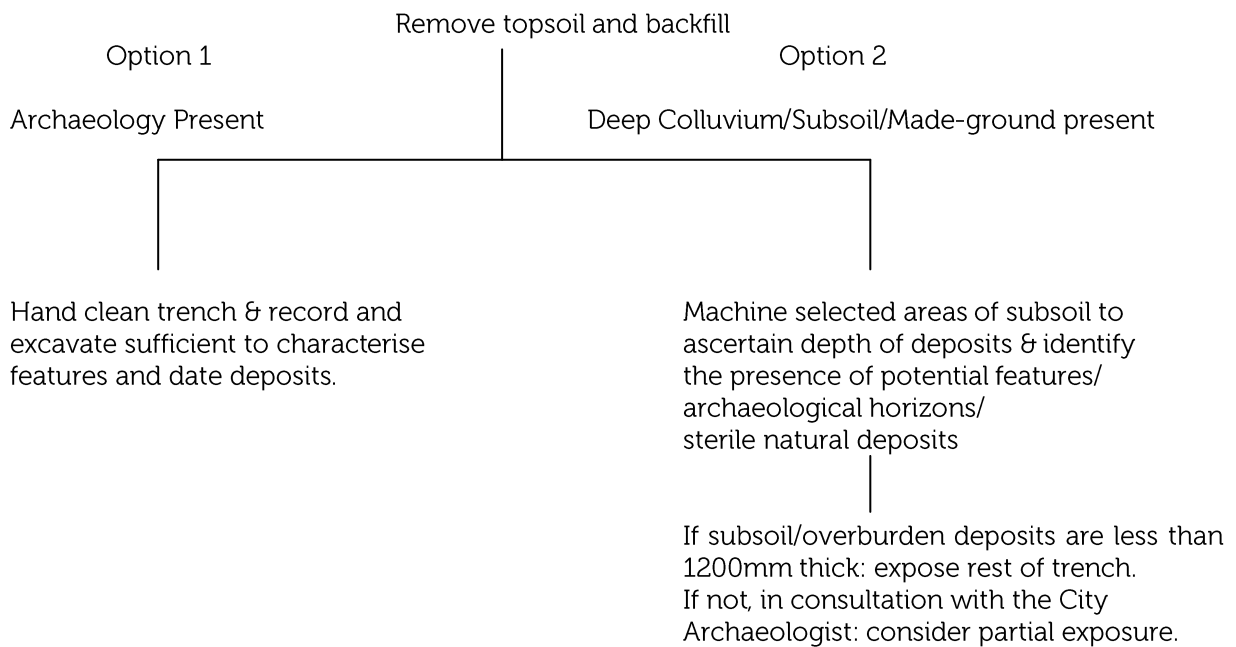
3.2. *Fieldwork*

- 3.2.1. TPA will provide supervision of archaeological excavation, and training to volunteers, within the study area of the Outer bailey of Nottingham Castle.

Machining

- 3.2.2. Removal of the 2016 season backfill will be carried out using the back-actor of a wheeled excavator (JCB 3CX or equivalent), or a backward-pulling, tracked 360° excavator, fitted with a toothless ditching bucket under constant archaeological supervision.
- 3.2.3. Prior to excavation the area of the trench will be scanned with a CAT Scanner to locate any services that are not shown on the services plan supplied by the client.
- 3.2.4. The location of the trenches and any archaeological features will be located within the OS coordinate-system in 3-dimensions using a Leica CS15/GS15 RTK Differential GNSS (GPS) prior to excavation. If it is impractical to use GPS, a Leica TCR 705 Total Station will be used as an alternative and the trenches referenced to the OS grid.
- 3.2.5. Trenches will be excavated to a maximum (unsecured) depth of 1m with stepping (see 3.2.5 below), to comply with Health & Safety restrictions (or to a perceived safe depth if the sides are stable). Subsoil will be excavated in spits no greater than 250mm. Excavation will follow one of two potential sequences depending on the deposits present below topsoil.

Excavation Methodology



- 3.2.6. In the event that it is necessary, within the aims of the excavation, to investigate deposits deeper than 1m then stepping/shoring of trenches will be carried out as appropriate.
- 3.2.7. Topsoil, subsoil and deposits will be stacked separately at a safe distance from the trench.
- 3.2.8. The location of any artefacts recovered in the topsoil/subsoil will be recorded three-dimensionally or by context/spit if appropriate.
- 3.2.9. Archaeological features will be hand-cleaned and planned. Following scanning by a metal detector, all features present will be excavated sufficiently to determine their plan and form, their nature, their degree of survival, and to recover any datable artefacts. All features thus investigated will be recorded stratigraphically using a single-context system, in plan and section and all finds recovered shall be retained for analysis.
- 3.2.10. Individual complex features such as kilns or burials will be cleaned and recorded, but retained in situ until advice can be sought from the City Archaeologist and Historic England Regional Science Advisor.
- 3.2.11. On completion of the fieldwork the trenches will be backfilled, but not fully reinstated, in consultation with requirements of Nottingham City Council.

Spoil-heaps

- 3.2.12. Where practical and safe to do so, all spoil heaps will be regularly examined for archaeological material, this will include the use of a metal-detector, for which a Section 42 licence will be obtained.

3.3. Community participation

3.3.1. Community participation during the excavation season will be encouraged at five levels:

Casual visitor

3.3.2. Casual visitors will be allowed to view the excavations from a secure vantage point. Information boards will be provided to explain the ongoing excavations. A TPA staff member, or NCMG volunteer "explainers" will be on hand to answer questions.

Site tours

3.3.3. Site tours led by TPA staff may be offered. Short tours will look only at the excavation; longer tours (as part of the Archaeology Live! model below) could include the whole Castle site.

3.4. Training under the Archaeology Live! model

Training

3.4.1. The basic structure of 1-2 day, 1-2 week training courses and longer placements will follow the courses that were offered during the St Leonard's, St Mary's, St Saviour, Hungate and All Saint's North Street training excavations. In view of the technical nature of the archaeological work and the potential depth of the trenches, there will be a negotiable minimum age limit of 16.

3.4.2. The one-week course will include on the first day introductory talks about the site, excavation techniques and health and safety, and a site tour. Subsequent days will include hands-on experience of excavation work; time will be divided equally between three tasks:

- Basic digging techniques: trowelling, mattocking, shovelling etc.
- Site recording: planning, levelling, section drawing and context description.
- Finds processing: washing, sorting and environmental sample processing.

3.4.3. Seminars and workshops by specialist staff will also be offered during the working day.

Taster sessions (1-2 days)

3.4.4. To cater for individuals developing an interest in the subject who are unable or unwilling to commit to a module, taster sessions will be offered. These will introduce people to the conditions and working regime on an archaeological excavation. Basic excavation and finds processing techniques will be taught.

3.4.5. Tasters will be run throughout the season. Taster trainees will ideally not work in the deeper trenches due to the additional Health and Safety implications, or where the archaeological deposits require appropriate investigation by module trainees and placements. The maximum tutor to Taster trainee ratio will be 1:6.

Training courses (1-5 weeks)

3.4.6. A one week module in excavation will be provided for people wishing to develop a more detailed, practical understanding of archaeological fieldwork.

3.4.7. Young people over the age of 16, students and adults interested in archaeology (e.g. those who enrol for evening classes, join local archaeological or metal detecting societies) will be the prime target groups who will be invited to take part in the training excavation modules.

3.4.8. The excavation modules will deal with excavation, recording, stratigraphic analysis and finds processing. Returning module trainees will be taught additional skills including photography, building recording, surveying and site interpretation. The trainees will follow the YAT single context recording system. There will be finds and environmental sample processing and analysis elements that will allow the relationship between the contexts and their finds to be considered.

3.4.9. The context of the work in each module in relation to the project aims and the wider history of Nottingham Castle will be explained. Visits, tours and lectures both during and outside site hours will form part of the modules.

3.4.10. The Cultural Heritage Management aspects of the project will be a very important element

of the training. All of the trainees will be shown how the excavation contributes to the heritage management of the site.

- 3.4.11. The tutor to trainee ratio will generally be 1:7 for practical elements of the work.

3.5. Project Staffing

- 3.5.1. Archaeologists will be fully qualified, experienced, and in possession of valid CSCS cards (CVs can be supplied upon request). The team for We Dig the Castle! has been selected based on experience of working within the particular constraints of the model developed through Archaeology Live! and to ensure that appropriate emphasis is placed on both the training and engagement of volunteers, as well as the recording of archaeological material/remains.
- 3.5.2. The excavation will be managed by Matt Hurford (Project Manager).
- 3.5.3. The project team will consist of Laura Binns (Community/Project Officer, TPA), Tom Hooley (Project Supervisor, TPA) and other additional personnel as dictated by the requirements of the training programme. These staff may be replaced with equivalently qualified personnel if circumstances dictate.
- 3.5.4. Volunteers will participate, and receive training, in all elements of the archaeological works under the supervision of qualified members of YAT/TPA. The ratio of trainees to staff will number no more than 7:1 on any given day of site work. Members of the public will be allowed to visit the site while archaeological works are being carried out.

3.6. General Provisions

Notice of commencement

- 3.6.1. Notice of the commencement of works to Nottingham City Council Museums and Galleries Service, the City Archaeologist, and Historic England Regional Inspector will be given at least 10 working days before onsite activities begin.

Human remains

- 3.6.2. Should human remains be present, they will not be removed, but preserved in situ.

Service checks

- 3.6.3. The client will make available all information relating to buried services prior to the commencement of intrusive groundworks.

Recording policy

- 3.6.4. Recording will, as a minimum, include the location and extent of deposits/features within areas of excavation, and their depth/elevation both by scale drawing (section and/or plan where applicable) and photograph (monochrome prints/digital). For further details of the recording methodology see **Section 4** below.

3.7. Reporting and Liaison

- 3.7.1. A report on the results, whether positive or not, will be prepared in the appropriate format and presented to the Nottingham City Council Museums and Galleries Service and the City Archaeologist within 12 weeks of the completion of the fieldwork. Should the results of the excavation warrant it then a detailed report will also be submitted for publication in the Transactions of the Thoroton Society. For further details of the contents of the report see **Section 4.7** below.
- 3.7.2. The City Archaeologist and Historic England Regional Inspector will be given notice of the commencement of the excavation (as above), and TPA will continue to liaise closely throughout the period of the works. The City Archaeologist and Historic England Regional Inspector will be free to visit the site to monitor fieldwork at all times.

3.8. Welfare, Access and Insurance

- 3.8.1. The Nottingham City Council Museums and Galleries Service will ensure safe access to the site and make toilet and hand-washing facilities available to archaeological staff and volunteers.

3.9. Insurance/compensation

- 3.9.1. As part of York Archaeological Trust, TPA carries the appropriate public, third party and employee insurances, copies of which are available for inspection if required.
- 3.9.2. Any disruption to the land should be resolved directly by NCC Museums and Galleries.

3.10. Health and Safety

- 3.10.1. TPA will adhere to all relevant health and safety regulations (copies of YAT/TPA Health and Safety policies are available on request).
- 3.10.2. No archaeological staff or volunteers will be allowed to enter the site until they have undergone a health and safety induction organised by TPA and/or NCC site-staff.
- 3.10.3. TPA will complete a task-specific Risk Assessment safe-working Method Statement before the commencement of the excavation, and copies of this will be made available to the Nottingham City Council Museums and Galleries Service, and all site-staff/volunteers. This will be in compliance with the industry guidelines laid out in FAME Manual, *Health & Safety in Field Archaeology*.
- 3.10.4. TPA staff and volunteers will wear appropriate personal protective equipment at all times.

4. DETAILED SPECIFICATION OF ARCHAEOLOGICAL RECORDING

4.1.1. Trent & Peak Archaeology will implement the following procedure:

- (1) Within the confines of site safety, contexts (the smallest usefully-definable unit of stratification) will be cleaned by hand and recorded.
- (2) All finds will be assigned an individual finds code. In-situ finds will be recorded three dimensionally, while finds from spoil will be noted in relation to their location within the trench/stripped area.
- (3) Excavation will be sufficient to securely establish the character, stratigraphic relationship and, where possible, date of features.

4.2. *Recording*

Plans

4.2.1. Plans of all contexts including features will be drawn on drafting film in pencil at a scale of 1:20 or 1:50, and will show at least:

- context numbers,
- all colour and textural changes,
- principal slopes represented as hachures,
- levels expressed as O.D. values, or levelled to permanent features if benchmark absent,
- sufficient details to locate the subject on a 1:500 plot of the area of ground-works and OS 1:2500 map (i.e the national grid).

Sections

4.2.2. Sections will show the same information, but levelling information will be given in the form of a datum line with O.D./arbitrary value; the locations of all sections will be shown on the plan.

Photographs

4.2.3. Photographs of each context will be taken as monochrome prints and digital images (as per Brown 2007), together with general views illustrating the principal features of the excavations.

4.2.4. Written records will be maintained as laid down in TPA recording manual (as accepted by all regional county archaeologists).

4.3. *Sampling (Palaeoenvironmental & Industrial residues)*

4.3.1. Appropriate sampling of deposits of palaeoenvironmental potential and residues and debris from industrial processes will be conducted in accordance with Table 1 (see below), with appropriate amendments following subsequent specialist advice. Specialist palaeoenvironmental advice will be provided by Dr Val Fryer and/or members of the Dickson Laboratory for Bio-Archaeology. Samples (both palaeoenvironmental and industrial) will be assessed, followed by full analysis and reporting where appropriate following receipt of specialist advice and liaison with the Historic England Assistant Science Adviser for the East Midlands (Historic England, 2011).

Table 1 – Preliminary Site Sampling Strategy*

Feature type	Sediment condition	Overall scope of sampling	MM	C14	Po/Dm	Ch	BP/BS	Bo	Wd
Sampling method:				A4x1cm (seal)	Film caps or column in gutter + Clingfilm	Min.30L+ Tubs (specialists to advise as to appropriate level of sub-sampling of deposit)			wrap each bit sep.
Man-made feature buried soil	Waterlogged organic (looks peaty)	each occurrence series of samples if thick (>150mm)			X	X	X	X	X
	Dry visible charred material	each occurrence (C14 selected: best is twigs then layer then flecks)		X		X		X	
	Waterlogged organic	each occurrence, at thickest point	X	X	X	X	X	X	X
	Dry visible charred material	each occurrence, at thickest point, series of samples if thick (>150mm)	X	X	X	X		X	
Any	Wood structure	retain all, keep damp, bag each timber		X					X
Industrial residues / debris etc.		All process stages to be represented					X		
*Adjustments to be made following specialist advice and liaison with SCC Principal Archaeologist where appropriate.									

Abbreviations MM Micromorphology C14 Radiocarbon Po/Dm Pollen/diatoms Ch Charred material BP Waterlogged Beetles/Plant remains Bo small bone Wd wood. BS – Bulk Sample (industrial waste/residues/processing debris)

4.4. *Post excavation Processing*

- 4.4.1. All finds will be stored as recommended in "*First aid for finds*" (by the Archaeology section of the United Kingdom Institute for Conservation), and marked with the site-, and find-codes, and relevant accession numbers. These will be deposited with Brewhouse Yard Museum under the assigned accession number on completion of the final report on excavations in the Outer Bailey of Nottingham Castle, subject to the agreement of the Nottingham City Council Museums and Galleries Service.
- 4.4.2. Where necessary the documentary archive will be sent to the UAD for copying.
- 4.4.3. Artefacts will be submitted to:
- **Prehistoric pottery** for assessment to Dr.D.Knight (TPA)
 - **Romano-British pottery** to Alex Beeby (APS)
 - **Anglo-Saxon/Mediaeval pottery/tile** to Vicky Naylor (Independent)
 - **Post Medieval Pottery** to A. Wilson and L. Elliot (TPA)
 - **Post Medieval CBM** to A. Wilson and L. Elliot (TPA)
 - **Flint** to P.Webb (University of Southampton)
 - **Palaeoenvironmental remains** to A.Wilson (TPA), Val Fryer (Independent)
 - **Zooarchaeological remains** to Dr K. Poole (YAT)
 - **Palaeopathology** to K. Smart (TPA)
 - **Wood artefacts/Conservation** to Ian Panter (YAT-York).
 - **Roman to Post Mediaeval metalwork** to N. Rogers (Independent)
 - **Coins** to G. Chamberlain (Independent)
 - **Industrial Residues** to Gerry McDonnell (Independent)

4.5. *Archive*

- 4.5.1. The archive will be prepared according to requirements of the Brewhouse Yard Museum:
- On project initiation notification will be given to the Brewhouse Yard Museum, using the appropriate notification form, with a copy to the City Archaeologist.
 - Decisions on the significance of finds archives will be supported by the recommendations/assessments of suitably qualified specialists and the guidance of the appropriate museum curator and City Archaeologist. Recommendations for retention or discard of elements of an archive will be set out explicitly in project reports with reference to regional and national research agendas as appropriate.
- 4.5.2. The archive will be fully indexed and contain where relevant:
- copies of correspondence relating to fieldwork
 - site notebooks/diaries
 - original photographic records
 - site drawings (plans, sections, elevations)
 - original context records, matrix diagrams showing stratigraphic sequence of all contexts. artefacts
 - original finds records
 - original sample records
 - original skeleton records
 - computer discs and printout

4.6. *Archive and Finds Deposition*

- 4.6.1. Notification to The Brewhouse Yard Museum, using the appropriate form will be made prior to commencement of fieldwork. Copies of the Report will be lodged with the HER and OASIS as well as Historic England and the Nottingham City Council Museums and Galleries Service as per the requirements of Scheduled Monument Consent.
- 4.6.2. Where discoveries are adjudged to be significant and meriting museum deposition the following will still apply:
- Finds will remain the property of the client with deposition at The Brewhouse Yard Museum Store subject to their approval.
 - The paper and digital archive generated by TPA will remain the property of the Unit until deposited within The Brewhouse Yard Museum Store:

- All finds and archive will be deposited with Brewhouse Yard Museum with arrangements and accession number to be agreed in line with agreed procedures for the transfer of Archaeological Archives. Written notification of completion of fieldwork will be given to the museum curator and City Archaeologist.
- Depositional arrangements will then proceed in line with agreed procedures for the transfer of Archaeological Archives (as supported by reference to specialist opinion, regional and national research agendas) whereby a *Transfer of Title* form will be completed and the archive accessioned. Written notification of final deposition of archive will be given to the City Archaeologist.

4.7. Report

- 4.7.1. A verbal report and where appropriate textual summary will be provided to the City Archaeologist, Historic England Regional Inspector and NCC Museums and Galleries Service representative on completion of fieldwork. Within 12 months of the end of all fieldwork, subject to completion of specialist reports, an interim report on results will be completed and copies provided to:
- Nottingham City Council Museums and Galleries Service.
 - The City Archaeologist for accession to the HER. This will include a copy of the report in PDF/A format on CD along with indexed copies of all digital on-site photography.
- 4.7.2. The report will include:
- Non-technical summary
 - Introductory statement
 - Aims and purpose of the project
 - Methodology
 - An objective summary statement of results
 - Conclusion
 - Illustrations at appropriate scales, all to include levels tied to Ordnance Datum.
 - Illustrative site photography, including key features and working shots
 - Supporting data - tabulated or in appendices, including as a minimum a basic quantification of all artefacts, ecofacts and structural data including recommendations for retention/discard and proposals for conservation.
 - Index to archive and details of archive location; confirmation of archive transfer arrangements including a provisional timetable for deposition.
 - References
 - A copy of the OASIS form

Dissemination

- 4.7.3. The results will be submitted for publication within the annual summary, if applicable, in *Transactions of the Thoroton Society*. If significant results are discovered then an individual report of an appropriate level of detail, will also be submitted for publication to a suitable academic journal.

Copyright

- 4.7.4. Trent & Peak Archaeology shall retain full copyright of any commissioned reports, tender documents or other project documents, under the Copyright, Designs and Patents Act 1988 with all rights reserved excepting that it hereby provides exclusive licence to the client for the use of such documents by the client in all matters directly relating to the project, with no limitation on the number of times that the client may reproduce any report. The client's contribution will be acknowledged in any future use of the work by TPA.

4.8. OASIS

- 4.8.1. An OASIS online record has been initiated for the project, OASIS ID:trentpea1-286929 (<http://ads.ahds.ac.uk/project/oasis/>). A copy of this document will be included in the report.

4.9. Monitoring

- 4.9.1. All phases of the investigation will be undertaken in line with the relevant 'Standard and Guidance' documents prepared by the ClfA (Chartered Institute for Archaeologists).

- 4.9.2. TPA will keep the City Archaeologist regularly informed of progress during the project and facilitate the monitoring of the project at each stage, including post-excavation. The City Archaeologist and Historic England Regional Inspector will be informed at the earliest opportunity of any unexpected discoveries, especially where there may be a need to vary the project design.
- 4.9.3. TPA will maintain an ongoing dialogue with the City Archaeologist and Historic England Regional Inspector, to enable the need for modifications to the project to be independently considered and validated, and to maintain compliance with the terms of the Scheduled Monument Consent.
- 4.9.4. TPA will keep the Historic England Regional Inspector, Nottingham City Council Museums and Galleries Service, and City Archaeologist informed of all material facts of the archaeological investigations. This will include agreeing any changes to the approved methodology or programme of works, and invitations to inspect any uncovered remains at appropriate stages in the fieldwork programme. The Historic England Regional Inspector and City Archaeologist will be free to visit the site at any stage of the fieldwork to ensure that the project is being carried out in accordance with the approved project design/WSI.

5. PROVISIONAL TIMETABLE

- 5.1.1. A provisional timetable has been agreed for a six-week period beginning on the 10th July 2017. Once final confirmation of permissions has been received, the City Archaeologist and Historic England Regional Inspector will be informed of project commencement.

6. REFERENCES

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