We Dig the Castle!

A Community and Training Excavation in Brewhouse Yard.

Final Report for the 2018 Excavations.

Prepared by: Laura Binns BA, MA

Report Number: 008/2019
TPA Project Code: WDC4

Trent & Peak Archaeology ©
Unit 1, Holly Lane
Chilwell
Nottingham
NG9 4AB
0115 8967400 (Tel.)
0115 925 9464 (Fax.)
tparchaeology.co.uk
trentpeak@yorkat.co.uk

Trent & Peak
ARCHAEOLOGY

Client Name: Nottingham City Council

Document Title: *We Dig the Castle!* A Community and Training Excavation in Brewhouse Yard. Interim report for the 2018 excavations.

Document Type: Final Report

Issue/Version No.: V1

Grid Reference: SK 56985 39485

Planning Reference: N/A

TPA Site Code: WDC4

Report No. 008/2019

Prepared by	Laura Binns
Date	27/11/2020
Approved by	Gareth Davies – Head of Operations
Signed	
Date	27/11/2020
Status	Final Report

Trent & Peak Archaeology is the Nottingham office of the York Archaeological Trust, a significant charity with annual turnover of over £7million. Trent & Peak Archaeology (TPA) was founded in Nottingham in 1967 and became part of YAT in 2011, formalising links that have existed between the two organisations for over 30 years. YAT's **Archaeology and Heritage** division undertakes a wide range of urban and rural archaeological consultancies, surveys, evaluations, assessments and excavations for commercial, academic and charitable clients. It can manage projects, provide professional advice and monitor archaeological works to ensure high quality, cost effective archaeology. Its staff have a considerable depth and variety of professional experience and an international reputation for research, development and maximising the public, educational and commercial benefits of archaeology. TPA and the Trust, through its offices in Glasgow, York, Sheffield and Nottingham, offer services throughout Britain and internationally.

York Archaeological Trust's **Attractions and Events** division runs major archaeological tourist attractions including the world-famous *Jorvik Viking Centre* and several large archaeological events including the *Jorvik Viking Festival* and *Yorkshire Medieval Festival*. This unique partnership bridges the gap between archaeological discovery and research, and public participation, educational outreach and inspiring presentation.

Trent & Peak Archaeology ©
Unit 1, Holly Lane
Chilwell
Nottingham
NG9 4AB
0115 8967400 (Tel.)
0115 925 9464 (Fax.)
tparchaeology.co.uk
trentpeak@yorkat.co.uk

Summary

- Between the 16th July 2018 and 17th August 2018, Trent & Peak Archaeology (TPA) undertook an archaeological training excavation called *We Dig the Castle* focussing on the Brewhouse Yard area located at the base of Castle Rock to the south of the castle.
- Nottingham Castle is a heritage asset of national significance and a Scheduled Ancient Monument (No. 1006382). Brewhouse Yard played an important role in the sustenance of the castle and the wider town since the Norman Conquest, up until more recent times.
- Three aims were proposed for the project:
  - To begin targeted excavations of Brewhouse Yard in order to expand our knowledge of its development and the stratigraphy of the Castle Rock area as a whole.
  - To engage local volunteers in the archaeology of Nottingham Castle and the surrounding area, to build relationships between the people of Nottingham and their cultural heritage.
  - To provide training to members of the local community in the processes and procedures of archaeological excavation and research.
- Four trenches were excavated under the direction of Charles Young in 1975. Trench I revealed deposits most likely associated with the gardens for the castle, the earliest deposits encountered were thought to date to the second half of the 17th century following the sale of Brewhouse Yard by the Crown. Trench IV revealed a brick wall thought to date to buildings located to the south of the cottages site present on site. These buildings were demolished in 1882. A vertical cut in the rock was believed to be contemporary with the wall and was cut to create a cellar. The wall was believed to be the original cellar wall and was thought to date to c. 1700.
- TPA excavated two trenches close to the locations of Trenches I and IV. The first (Trench 01), measuring 5m x 5m, was located near to Trench I in order to establish an alluvial deposit model for this area of the medieval town due to its close proximity to the River Leen.
- The second trench (Trench 02), measuring up to 5m x 5m was located close to Trench IV in order to partly reveal the footprint of 18th/19th century buildings that once stood there.
- Trench 01 revealed a number of stratigraphic deposits, the presence of which suggested that this area had not been structurally developed at any point. Finds suggest that lowest excavated deposits dated to the 17th-18th century and are thought to be alluvial deposits associated with the River Leen. Borehole and radiocarbon dating evidence suggest the earliest alluvial deposits at a depth of 3.26m BGL dates to the mid-11th to 12th centuries, suggesting the presence of structures along the banks of the Leen, such as a mill complex, causing the build-up of silt at this time. Organic deposits above these in the stratigraphical sequence are possibly related to the earliest gardens for the castle.
- Trench 02 revealed a number of pits cut into degraded sandstone dating to the 18th-19th century, suggesting these features to be rubbish pits. The corner of a small structure was revealed in the northeast corner, however the use of perforated bricks suggested its modernity as machines for the pressing and moulding of bricks were invented in the mid-late 19th century. It is possible that the brick structure relates to a ceramic drainage pipe that was located in the southwest corner of the site orientated northeast to southwest.
- A watercolour of Brewhouse Yard and the Castle by J. Edwards, painted c.1861-1881, suggests the ground level to be significantly lower than what it is today. The row of buildings to the south of the cottages still visible on site today had been demolished by the time of this painting, and are possibly the reason for the ground reduction. It appears that the back of the cellars are just visible in the painting. The foreground surface is also quite light in shade, suggesting that this is either a hardcore surface or the natural sandstone has been exposed by removing any

topsoil and subsoils layers from this area. The presence of natural sand and bedrock at such a shallow depth in Trench 02 suggests that all of the material deposited above it dates to the 20th century, after this watercolour was painted.

Contents

List of Plates

List of Figures

1 Introduction

1.1.1 Between the 16th July 2018 and 17th August 2018, Trent & Peak Archaeology (TPA) undertook an archaeological training excavation in conjunction with commercial works taking place within the Outer Bailey of Nottingham Castle. This training scheme was named *We Dig the Castle!* and this year focussed on the Brewhouse Yard area of the Castle site alongside test pitting near to previous excavations in the Outer Bailey.

1.1.2 Nottingham Castle is a heritage asset of national significance and a Scheduled Ancient Monument (English Heritage SM 1006382). Located at the base of Castle Rock, to the south of the castle, Brewhouse Yard played an important role in the sustenance of the castle and the wider town since the Norman Conquest, up until more recent times.

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, and for 2018 Brewhouse Yard, 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 flood plain to the south. The course of the River Leen once ran along the base of the cliff on the southern and western sides, though is now culverted beneath 19th Century and modern roads: Castle Boulevard (A6005) and Peveril Drive. Brewhouse Yard is situated between these roads and Castle Rock and consists of a landscaped area with a gentle slope down to the roads. There are buildings within the north and east of the site, namely a row of 17th century houses forming the Museum of Nottingham Life, The Trip to Jerusalem public house and the Waterworks building that used to be a pumping station but now owned by the City Council.

2.1.3 Brewhouse Yard 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 Brewhouse Yard centred on Ordnance Grid Reference SK 57018 39394 (Figure 1).

3 Historical Background

3.1 Nottingham Castle

3.1.1 Nottingham Castle, originally founded in 1068, became one of the most important royal castles outside of London by the Middle Ages. This is because of its strategic position on top of Castle Rock and its central location for 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 (Holland Walker 1928a).

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 execution of King Charles, the Castle was still considered to be a formidable threat. A meeting was held at the castle in 1651, where 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, 2018 pers. comm.).

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 by sweeping away the majority of the remaining Medieval castle to make way his new 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 (Holland Walker 1928b).

3.1.6 By the late 18th Century, the Castle had been divided into apartments. Some of the rooms had previously been used as a boarding school. 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).

3.1.7 In 1831, the 4th Duke, Henry Pelham-Clinton, opposed popular cries for parliamentary reform. Following the Duke's reported opposition to the Reform Bill in the House of Lords, the castle was burned down by radicals during a night of riots (Holland Walker 1928a).

3.1.8 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. 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 (Drage, 1999).

3.2 Brewhouse Yard

3.2.1 Prior to being known as Brewhouse Yard, the area was known as the Roch'yerd (Rock Yard) (Hammond 1926). The existence of mills at the foot of the Castle Rock, known alternatively as the Castle Mills and the Kings Mills, were first mentioned in the mid 12th century. There is no evidence for any mills located in proximity to the castle prior to this date.

3.2.2 The milling complex consisted of a mill house, five mills, a mill pond, several sluices and quays, all positioned within an enclosure close to the foot of the Castle Rock. The mills are recorded as having been repaired frequently during the 13th and 14th centuries (Lomax 2017).

3.2.3 It is possible that the cave known as Mortimer's Hole was hewn shortly after 1194/1195 when money was granted for the creation of a 'postern leading to the motte'. Alternatively it may have been created during 1212-1213 when King John brought ten miners to live at Nottingham Castle for 13 months. Its original function was a means of transporting men and goods from the mills and the River Leen (Lomax 2017).

3.2.4 By 1467 mill fleets had been created. These were artificially cut channels carrying water from the Leen to the mills to provide the water power they needed. It is thought that all but one of the mills were demolished by 1564-1565, with the final surviving mill continuing in use into the 17th century. The cave adjacent to Mortimer's hole is known as the Water Cave may relate to these mill fleets but its function is uncertain (Lomax 2017).

3.2.5 The earliest reference to the Brewhouse dates to 1610/1611 suggesting the site only became used for the brewing of ale during the late 16th or early 17th centuries. The precise location of the Brewhouse is unknown but it is possible it was cut into the rock. Caves are apparent in the Brewhouse Yard area on John Speed's map of 1610 (Figure 08) where 'visited' people (plague victims) would have been detained in a cave which was either the brewhouse itself or a cave in the immediate proximity (Hammond 1926). One of the caves at the rear of the Museum of Nottingham Life predates the cottages and it is possible that this is the Brewhouse. At this time Brewhouse Yard was constabulary free from the restrictions imposed upon the rest of the town, and became a 'very unsavoury district' (Gill, 1909).

3.2.6 In 1621 the land forming Brewhouse Yard was sold by the Crown to "Edward Ferres, of London, mercer & Francis Philips, of London, gent., exemplify'd to John Mitten, & William Jackson." (Deering, p. 175).

3.2.7 From the late 17th century onwards, industrial activity within Brewhouse Yard had all but ceased, with only small cottage industry taking place within some of the extant cottages. Thoroton's 1677 map of Nottingham showed a long row of tenements on the south side of the roadway; also four detached houses with gardens situate between the long row and the River Leen, indicating that housing had begun to occupy Brewhouse Yard (Figure 3). The stylistic nature of the map means we cannot know how many buildings were present at that time but it is reasonable to conclude there were numerous buildings standing (Lomax 2017).

3.2.8 A number of inns are referred to in Brewhouse Yard, the Trip to Jerusalem (originally The Pilgrim) being the only survivor. Other inns included "The Gate Hangs Well" (demolished in the early 20th century), "The Wheel" (sold in 1785), "the Bottle and Glass," (mentioned in 1799), The Junk Ship (mentioned in 1787) and The Gibraltar (mentioned in 1786). The building once known as The Gibraltar is today known as Rock Cottage and is believed to be contemporary with the other cottages forming the Museum of Nottingham Life, dating to the end of the 17th century (Holland Walker 1928b).

3.2.9 Badder and Peat's map of 1744 (Figure 09) shows more buildings on the cliff, four tenements on the north side of the road and two inns near the entrance to the yard, "The Trip to Jerusalem," and "The Gate" (Lomax 2017).

3.2.10 According to Charles Deering (writing in c.1745) there were "17 small decayed tenements" along with buildings lying to the south. During the 18th century a number of decaying buildings were cleared away (Gill, 1909). The rock cut cellars of some of these buildings are still visible today, most notable the cellars below Rock Cottage. At this time, the area between Mortimer's Hole and the entrance to Western Passage formed gardens for the Castle (Lomax 2017).

3.2.11 Between 1744 and 1820 development appears to have been minimal, as indicated by the Smith and Wild map of 1820 (Figure 10). However, in the following 11 years Brewhouse Yard became much more occupied (Lomax 2017).

3.2.12 By 1881 the southern part of the site had become occupied by the Waterworks Company, and a Pumping Station had been built. Jackson's map of 1850 and the First Edition OS map also shows a large north-south orientated building at the western side of the site as well as small houses located immediately east of Rock Cottage, at the foot of the rock, where caves can be seen cutting the rock. The row of buildings to the south of the museum cottages, first depicted by Thoroton, has been demolished by this time (Lomax 2017).

4 Archaeological Background

Brewhouse Yard and Castle Boulevard (S. Lomax, 2017)

4.1.1 An excavation undertaken by the Thoroton Society in 1936 on the southern side of Castle Boulevard revealed alluvial deposits of the River Leen with some deposits indicating deliberate filling of the river, though no dating evidence for when this took place was found. The excavation also revealed the bed of the river at a depth of 18ft. Here the frontal bone of a small human skull with possible bullet hole was recovered, in close proximity to a sherd of imported stoneware dating to c. 1700. A layer of black mud contained remains of a poplar tree. Another layer of mud contained a skull, probably from a wild boar.

4.1.2 Four trenches were excavated within Brewhouse Yard between March and June under the direction of Charles Young (Figure 02). Each of the trenches were orientated north-south and each are recorded as having measured 3.6m (N-S) and 1.8m (E-W).

4.1.3 Trench I revealed deposits most likely associated with the gardens for the castle, as shown on Badder and Peat's map of 1744. The earliest deposits encountered were thought to date to the second half of the 17th century following the sale of Brewhouse Yard, by the Crown. A good sequence of deposits was excavated, with layers dating from the 17th century through to the 19th and 20th centuries. The more recent deposits probably relate to landscaping works to raise the ground level above the water table, and probably date to the period when the River Leen was culverted below what is now Castle Boulevard (during the late 19th century).

4.1.4 Trench II coincided with an area of development and consequently only 19th century deposits, containing earlier residual 11th-14th century pottery thought to be discarded from the castle. This may have been the result of landscaping works in advance of the construction of the Ducal Palace in the second half of the 17th century.

4.1.5 Trench III was located on the footprint of a 19th century house. The cliff face had been cut back to accommodate this new building and only 19th century deposits were uncovered

4.1.6 Trench IV revealed a brick wall thought to date to buildings located to the south of the cottages which form the Museum of Nottingham Life. These are shown on Badder and Peat's map of 1744 and demolished in 1882. A vertical cut in the rock was believed to be contemporary with the wall and was cut to create space for a cellar. The wall was believed to be the original cellar wall and was thought to date to c. 1700.

4.1.7 Trenches II, III and IV coincided with where buildings had existed in the 18th and 19th centuries (see figures 10 and 11, with reference to the text which follows). It is therefore unsurprising that these areas were highly disturbed and that it appeared the deposits encountered were solely the backfill of cellars following demolition of those buildings.

5 Objectives

5.1.1 This project provides a rare opportunity to investigate the Nottingham Castle Scheduled Ancient Monument and Brewhouse Yard, 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):

High Medieval (1066-1485):

7.1 Urbanism

1. How did the major towns and smaller market towns of the region develop after the Norman Conquest, both within the urban core and in suburban and extra-mural areas?
2. How may we enhance our understanding of the chronology, functions and morphology of caves, and in particular the outstanding subterranean resource of medieval Nottingham?

Post Medieval (1485-1750):

8.1 Urbanism: morphology, functions and buildings

1. How were towns organised and planned, and how did population growth impact upon their internal spatial organisation?
2. What can studies of environmental data, artefacts and structural remains tell us about variations in diet, living conditions and status?
3. Can we recognise the emergence of the poorer classes in the developing suburbs?
4. How can we advance studies of building plans and standing remains, especially where hidden inside later buildings, and of caves and cellars?

8.2 Landscapes of display: country houses and gardens

1. Can we elucidate further the use of social space in buildings and across the landscape, the manipulation of vistas and the integration of gardens with the wider landscape?
2. How were garden designs influenced by changing fashions and by a familiarity with Continental garden styles?

Modern (1750 - Present):

9.5 Estates, Parks, Gardens and Woodland

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

2. Can we establish a typology of buildings and other structures associated with country estates, parks and gardens?

5.1.2 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*

5.1.3 The Strategic objectives proposed four aims for the project:

- To begin targeted excavations of Brewhouse Yard in order to expand our knowledge of its development and the stratigraphy of the Castle Rock area as a whole.

- To continue targeted excavations of the Outer Bailey and to investigate other structures within 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.

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

- To provide training to members of the local community in the processes and procedures of archaeological excavation and research.

6 Methodology

6.1.1 All phases of works within Brewhouse Yard were carried out between 16th July 2018 and 17th August 2018 by TPA staff, trainees, Nottingham City Museums and Galleries volunteers and volunteers from the local community.

6.1.2 All works were undertaken in accordance with the Project Design/WSI (Binns 2018) as approved by the Nottingham City Archaeologist and the Historic England Regional Inspector.

6.1.3 All work met with requirements and standards set out in *Management and Research Projects in the Historic Environment: The MoRPHE Project Managers Guide* (Historic England revised 2015), All work also met with 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).

6.1.4 Two trenches were hand excavated within the localities of the excavations completed by C. Young in 1975. The first trench (Trench 01), measuring up to 5m x 5m was located near to Trench I, in order to establish an alluvial deposit model for this area of the medieval town due to its close proximity to the course of the River Leen. There is also the potential to uncover late medieval features and deposits. The second trench, measuring up to 5m x 5m was located close to Trench IV (Figure 02) in order to partly reveal the footprint of the 18th/19th century buildings that once stood there. The sizes of the trenches allow for the option of stepping the trench edges if there was reason to go deeper than 1m.

6.1.5 Prior to the commencement of the excavation, the ground was CAT scanned for services by a trained member of TPA staff.

6.1.6 The location of the trenches 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.

6.1.7 Topsoil, subsoil and deposits were stacked separately at a safe distance from the trench onto tarpaulins to aid with reinstatement.

6.1.8 All features and deposits encountered were excavated sufficiently to determine their survival, nature, plan, and form and to recover datable evidence.

6.1.9 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.

6.1.10 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.

6.1.11 Archaeological features and layers were given a four-figure context number e.g. 0001. Context sheets were completed for each context revealed.

6.1.12 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.

6.1.13 The location of any artefacts recovered in the subsoil or in features were recorded by context. All artefacts were treated in accordance with *UKIC guidelines* (1983 and 1984) *and First Aid for Finds* (Watkinson & Neal, 1998). Finds washing and cataloguing was started by volunteers whilst on site and finished by TPA members of staff and in-house volunteers. The finds were then analysed by TPA in-house specialists.

6.1.14 After Trench 01 was hand excavated to a maximum depth of 2.2m with stepped sections, window sample were taken, using a 'Terrier' rig, which utilises a 100mm diameter core in order to recover and retain samples of geoarchaeological/palaeoenvironmental interest if present, as these would contribute to an understanding of the nature of the landscape and the uses to which it was put. Two window samples were taken at different points in Trench 01 and from different depths.

6.1.15 On completion of the fieldwork the trenches were backfilled by a wheeled excavator, but not fully reinstated, in consultation with requirements of Nottingham City Council.

7 Community participation methodology

7.1 Training Dig – Paying placements

7.1.1 The excavations were designed to cater for those people wishing to develop a more detailed, practical understanding of archaeological fieldwork. Up to 10 people a day 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.

7.1.2 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.

7.2 NCMG volunteers

7.2.1 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 Results

8.1 Trench 01 (Figures 03 and 04)

8.1.1 Upon the removal of modern friable mid greyish brown sand silt topsoil (1001) to a maximum depth of 0.12m, friable light greyish yellow sandy silt pebbly subsoil (1002) was revealed measuring 0.04m in thickness. Both layers extended beyond the width of the trench. Due to the difficulty of excavating through the layer, the trench was narrowed down to 3m at this point. Trench 01 was excavated to a maximum depth of 2.2m and the watertable was reached and therefore excavations could not continue. The natural substrate was not revealed within this trench.

8.1.2 A number of layers and deposits were observed below the subsoil and are discussed here from earliest to latest.

Channel deposits

8.1.3 The earliest deposits probed with a hand auger were channel deposits relating to the river Leen. Alluvial sands and gravels were probed to a depth of 4.80m below the ground surface; overlying this between 4.80-3.30m below the ground surface was a sequence of alluvially derived deposits relating to the river Leen; overlying this between 3.30-2.10m below the ground surface was a sequence of deposits that can be broadly defined as alluvial overbanking flooding material with a mixture of colluvial material derived from Castle Rock.

8.1.4 Section 11 provides a full description and discussion of the geoarchaeological deposits encountered during hand auger probing. The remaining deposits outlined below relate to archaeological material observed directly during excavation. As such, the deposits below (8.1.5-8.1.7) represent the latest alluvially derived material from overbank flooding.

Alluvial deposits (1014), (1015) and (1017), (Plates 3 and 4)

8.1.5 Loose grey brown clay sand with orange sand lenses (1015) was revealed in the middle of the trench sloping down towards the north at a depth of 2m below the ground surface. At its deepest, deposit (1015) measured 0.3m. The length and width of this deposit was unknown as it continued beyond the excavated area. Pottery sherds were recovered from this deposit, ranging in date from the medieval period to the 18th century.

8.1.6 Loose yellow orangey brown clay sand (1014) was located above (1015) sloping down towards the north to 1.8m below the ground surface, and measuring 0.35m deep. The length and width of this deposit was unknown as it continued beyond the excavated area. Deposits of iron pan were visible towards the base of (1014). Pottery sherds were recovered from this deposit, ranging in date from the medieval period to the 18th century.

8.1.7 Friable mid grey clay sand (1017) was located above (1014) sloping down towards the north at 1.6m from ground surface, and measuring 0.35m deep.

Organic deposits (1016) and (1018), (Plates 3 and 4)

8.1.8 Friable dark brown grey sand silt (1016) was revealed in the middle of Trench 01 at a depth of 1.5m from ground surface. It was clearly visible in the north facing section measuring a depth of 0.1m but dissipated in the west facing section and in plan after approximately 1m and merged into mid-dark grey sand silt (1018) at the northern end of the trench. Silt deposit (1018) measured a depth of 0.31m. These layers may represent the early garden layers, dating from the 17th century through to the 19th century.

Allotment soils (1012) and (1013), (Plates 1 and 2)

8.1.9 Friable orangey brown sandy silt (1013) with frequent flecks of charcoal was revealed above deposit (1016). It was found to slope down slightly towards the north end of the trench and

measured a depth of 0.33m. It contained a number of finds including pottery, glass, shell, clay pipe, CBM and animal bone, dating the layer to the 18th-19th century.

8.1.10 Dark greyish brown clay sand (1012) measured 0.44m deep and extended across the length and width of the trench. It merged with (1013) below. Finds included residual medieval pottery, a nail and animal bone.

8.1.11 These layers possibly make up garden or allotment soils from when this area was gardens as seen on the Staveley and Wood map of Nottingham (1831) and Badder and Peat's map (1744) (Figure 09).

Redeposited layers (1006), (1007), (1008), (1009), (1010) and (1011), (Plates 1 and 2)

8.1.12 Above the allotment soils were a number of layers consisting of redeposited material ranging from mid orangey brown to mid-light grey sandy clays and course sands. Full descriptions of these deposits can be found in Appendix 1. These deposits measured *c* 1m in total depth and were revealed across the full width and length of trench 01. Some deposits, such as (1006) and (1011), contained a high number of modern rubble fragments alongside medieval pottery, suggesting some of these deposits have possibly been spread during landscaping, similar to upper landscaping layers found within the Outer Bailey excavations during We Dig the Castle! 2015-17 (Parker and Binns, 2018). These more recent deposits possibly relate to landscaping works to raise the ground level above the water table, and probably date to the period when the River Leen was culverted in the late 19th century. The deposits collectively contained artefacts of all typologies, including slag fragments, pottery, shell and animal bone indicating a date of the 19th-20th centuries.

Linear feature [1004], (Plates 1 and 2)

8.1.13 Cutting through redeposited layers (1006) and (1007) was linear feature [1004], thought to be a cut for a fence or modern service that has since been removed and backfilled with loose dark brown sand (1005). Linear feature [1004] was orientated north east to south west had near vertical sides and measured 1.17m x 0.18m x 0.08m in length, width and depth. No finds were recorded from this feature.

Modern levelling deposit (1003), (Plates 1 and 2)

8.1.14 Friable grey brown layer of mixed course sand, gravel and rubble (1003) was found across the entire trench. It was between 0.12m and 0.3m deep, with the deepest point being at the south end. It contained a range of finds including pottery, glass, CBM, modern coins and slag. Deposit (1003) could be the results of landscaping on the site between 1975 and 1977.

8.2 Trench 02 (Figures 05 to 07)

8.2.1 The removal of modern friable dark brownish black sand silt topsoil (2001) to a maximum depth of 0.08m, revealed two modern service trenches (Plate 5). Service trench [2005] was orientated east to west immediately to the south of the south facing section and filled with light greyish brown silty sand (2004). Water pipe trench [2007] was orientated north to south, located immediately to the east of the east facing section and filled with light greyish brown silty sand (2006). The presence of services narrowed the excavation area to 4 x 4m. Both service trenches were found to be cut through dark yellowish-brown silty sand subsoil, revealed within the 4 x 4m trench and measured to a depth of 0.3m.

8.2.2 Trench 02 was excavated to a maximum stepped depth of 1.8m within pit [2016]. The southern end of Trench 02 was shallower than the north end due to the sloping nature of Brewhouse Yard. The sandstone bedrock (2026) was revealed at 0.8m at the south end of the Trench 02. A number of archaeological layers, deposits and features were revealed below subsoil (2002) and are discussed here in groups from earliest to latest.

Bedrock (2026) and cut [2036]

8.2.3 The sandstone bedrock (2026) was only revealed at 0.8m in depth at the south end of the trench (Plate 7). A slot was excavated measuring 2.2m revealing a possible concave and even sloping cut [2036] through bedrock (2026). The slot was excavated to a depth of 0.68m revealing loose mid-light orange sand (2031) with mudstone fleck inclusions and occasional riverine pebbles. This layer, measuring at least 0.25m does look to be natural degraded bedrock but more investigation is needed to confirm that sand (2031) is not backfilling a rock cut structure such as a cellar. Orangey yellow sand (2009) was observed above sand (2031) measuring 0.43m deep and visible across site (Plate 6). This layer is also thought to be natural degraded sandstone with some contamination from layers and deposits above.

Pit [2030]

8.2.4 Rounded and even sloping pit [2030] was found to cut through sand (2009) in the middle of Trench 02. It measured 0.63m x 0.66m x 0.3m and filled with friable mid grey silt sand (2033) with inclusions of charcoal and pebbles. The function of pit [2030] was unknown but it contained modern pottery and therefore could be a rubbish pit (Plate 8).

Pit [2011]

8.2.5 Sub rounded pit [2011] was located 0.78m to the east of pit [2030]. It was steep sided with an irregular base and measured 0.85m x 0.67m x 0.54m (Plate 9). It was filled with horizontal lenses of orangey brown and dark brown silt sand (2010) and contained broken glass, mussel shell and modern pottery suggesting the pit to be a rubbish pit filled over time. Pit [2011] was recut by pit [2020] measuring 0.53m x 0.65m x 0.54m. The eastern edge of pit [2020] was very regular in slope, with the base an irregular 'V' shape. Recut [2020] was filled with friable dark brown silt sand with mottles of dark yellow sand (2019). It contained fragments of brick and modern pottery and glass.

Construction cut [2014] and structure [2017]

8.2.6 Within the northeast corner of trench 02, construction cut [2014] was identified, orientated east-west, and measuring at least 1.4m long and 0.58m wide (Plates 10 and 11). Its north facing edge was undercut into sand (2009) and its base was flat. [2014] was construction cut for brick structure [2017], an 'L' shaped wall, two courses wide and four courses deep, with a brick floor below, of one course in depth. The floor and walls were keyed in and very tightly bonded. The structure measures a total of 0.9m x 0.58m x 0.5m. The individual bricks measured 235mm x 112mm x 75mm and were bonded with a sandy white mortar. The east to west orientated section of wall consisted of one brick course laid in stretcher formation and an outer course of bricks laid in the shiner formation with regular perforations through the clay. The internal face of the bricks appears to have been limewashed. Construction cut [2014] and brick structure [2017] were filled by compacted dark brown silty sand (2018), with charcoal, mortar and CBM inclusions.

Pit [2016]

8.2.7 Abutting brick structure [2017] was sub angular pit [2016] measuring at least 1.3m x 1.3m x 1m (Plates 12 and 13). Pit [2016] was not fully revealed and continued into the south facing section of trench 02. It was filled in by four fills. At the base, yellow orange sand (2023) with small and large CBM fragments filled the pit by 0.1m. Above fill (2023) dark brown sand (2022) with pebble and CBM inclusions was rapidly deposited in pit [2016] up to a depth of 0.2m. A thick layer of dark grey clinker and sand was deposited above (2021) to a depth of 100mm and subsequently covered over by yellow brown sandy silt (2015), containing stones and large pebbles. All fills sloped towards the south facing section and were filled with modern pottery, glass, metal and brick fragments, suggesting that pit [2016] is a modern rubbish pit, possibly relating to structure [2017] due to its close proximity.

Pit [2029]

8.2.8 A line of small intercutting pits and linear features was revealed in section in the east facing section and northwest corner of Trench 02 (Plate 14). The oldest of these was pit [2029]. It was at least 1 x 0.16 x 0.15m and was filled by firm light brown grey silt sand (2028), containing large brick and stone fragments.

Pit [2035]

8.2.9 Subrounded pit [2035] cuts through pit [2029]. It measured at least 0.7m x 0.9m x 0.2m and was filled by friable mid brown grey sand silt with light yellow mottles (2034), containing sub rounded pebbles and large brick fragments (Plate 14).

Pit [2013]

8.2.10 Linear feature [2013] cuts through pit [2035]. Measuring 2m x 0.8m x 0.14m, its steep side and flat base suggest it is related to the remnants of a sewer pipe found above it orientated northeast to southwest (Plate 14). It is filled with dark-mid brown silty sand (2012) containing frequent brick fragments and charcoal flecks, and modern pottery and glass. It is interesting to note that the ceramic drain is orientated towards brick structure [2017] within construction cut [2014].

Deposit (2032)

8.2.11 Subrounded mid grey sand deposit (2032) with ash and charcoal fragments was recovered towards the southwest corner of the trench. It is thought to be a deposit filling a hollow in sand (2009) rather than a cut feature, which also seems to be modern in date.

Demolition layers (2025) (2024) (2003) (2008)

8.2.12 All of the features mentioned above were covered by demolition layers and landscape material (Plate 5). Loose black grey tarmac layer (2024) and dark blackish brown sand silt deposit (2025) were both located in the northeast corner of trench 01 above brick structure [2017] within construction cut [2014], reaching toward the south western corner before tapering off. Collectively these deposits measured up to 0.24m deep.

8.2.13 Deposits (2024) and (2025) were covered by mid brown grey silt sand with brick, tile and stone inclusions (2003), and loose yellowish brown sand with concrete, pebbles and brick inclusions (2008). They both cover trench 02 to a depth of 0.55m

9 Finds – Alison Wilson and Dr. Kris Poole

9.1 Introduction

9.1.1 A total of 3511 finds were recovered from the We Dig the Castle 2018 excavation. A table of these can be seen below:

Material	Quantity
Pottery	1718
Animal bone	524
Glass	119
Clay tobacco pipe	385
CBM	119
Carbon rods	4
Shell	25
Miscellaneous	18

9.2 Pottery

9.2.1 A total of 1718 fragments of pottery weighing 17,646g were recovered from the We Dig the Castle excavation in 2018. 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

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

9.2.3 The pottery was fairly evenly scattered across the site. 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.

Table 1: Pottery finds

Context	Quantity	Weight (g)	Description	Date range
1000	9	24	White bodied earthenware	18th-20th century
1000	4	31	Coarse Earthenware	17th - 19th century
1000	8	72	Salt glazed stoneware	17th-19th century
1000	1	5	Mocha Ware	19th-20th century
1000	1	8	Mottled ware	17th-18th century
1000	1	21	Medieval sandy Ware	12th-15th century
1000	3	12	Porcelain	18th-19th century
1001	12	29	White bodied earthenware	18th-20th century
1001	3	21	Coarse earthenware	17th-19th century

1002		134	White bodied earthenware	18th-20th century
1002	1	37	Salt glazed stoneware	17th-19th century
1003	138	608	White bodied earthenware	18th-20th century
1003	20	633	Coarse earthenware	17th-19th century
1003	6	26	Mocha Ware	19th-20th century
1003	7	607	Porcelain	18th-19th century
1003	2	45	Red bodied earthenware	18th-19th century
1003	4	42	Midland Purple	15th-16th century
1003	1	6	Slipware	17th-18th century
1003	2	3	Cistercian/Black ware	17th-18th century
1003	17	289	Salt glazed stoneware	17th-19th century
1003	2	22	Medieval green glaze	12th-15th century
1003	1	37	Medieval sandy Ware	12th-15th century
1003	5	7	Midland yellow ware	16th-18th century
1006	92	576	White bodied earthenware	18th-20th century
1006	5	50	Porcelain	18th-19th century
1006	1	9	Tin glazed earthenware	18th-19th century
1006	12	67	Mocha/Yellow Ware	19th-20th century
1006	4	7	Slipware	17th-18th century
1006	19	320	Salt glazed stoneware	17th-19th century
1006	58	840	Coarse Earthenware	17th - 19th century
1006	6	159	Midland Purple	15th-16th century
1006	6	66	Cistercian/Black ware	17th-18th century
1006	1	17	Midland yellow ware	16th-18th century
1006	84	1981	Medieval green glaze	12th-15th century
1006	18	218	Medieval sandy Ware	12th-15th century
1006	1	6	Mottled ware	17th-18th century
1009	34	225	White bodied earthenware	18th-20th century
1009	4	479	Coarse Earthenware	17th - 19th century
1009	1	4	Mottled ware	17th-18th century
1009	1	75	Midland Purple	15th-16th century
1009	3	51	Medieval green glaze	12th-15th century
1009	4	35	Salt glazed stoneware	17th-19th century
1009	6	91	Mocha/Yellow Ware	19th-20th century
1009	2	18	Midland yellow ware	16th-18th century
1009	18	135	White bodied earthenware	18th-20th century
1010	1	15	Coarse Earthenware	17th - 19th century
1010	2	28	Salt glazed stoneware	17th-19th century
1010	1	2	Midland yellow ware	16th-18th century
1010	4	107	Medieval green glaze	12th-15th century
1010	1	24	Medieval sandy Ware	12th-15th century
1011	72	836	White bodied earthenware	18th-20th century
1011	2	55	Coarse Earthenware	17th - 19th century
1011	22	316	Salt glazed stoneware	17th-19th century
1011	7	40	Porcelain	18th-19th century
1011	4	8	Mottled ware	17th-18th century
1011	3	87	Medieval sandy Ware	12th-15th century
1011	3	62	Medieval green glaze	12th-15th century
1011	14	97	Cistercian/Black ware	17th-18th century
1011	3	21	Mocha/Yellow Ware	19th-20th century

1011	2	40	Slipware	17th-18th century
1011	2	3	Tin glazed earthenware	18th-19th century
1012	144	344	White bodied earthenware	18th-20th century
1012	12	287	Midland Purple	15th-16th century
1012	37	338	Salt glazed stoneware	17th-19th century
1012	17	389	Coarse Earthenware	17th - 19th century
1012	5	25	Mottled ware	17th-18th century
1012	3	4	Midland yellow ware	16th-18th century
1012	5	31	Medieval green glaze	12th-15th century
1012	8	30	Cistercian/Black ware	17th-18th century
1012	5	41	Porcelain	18th-19th century
1012	17	80	Mocha/Yellow Ware	19th-20th century
1012	4	30	Slipware	17th-18th century
1012	3	5	Tin glazed earthenware	18th-19th century
1013	1	1	Yellow ware	19th-20th century
1013	33	457	White bodied earthenware	18th-20th century
1013	1	9	Medieval green glaze	12th-15th century
1013	8	20	Tin glazed earthenware	18th-19th century
1013	3	106	Cistercian/Black ware	17th-18th century
1013	28	934	Coarse Earthenware	17th-19th century
1013	26	256	Salt glazed stoneware	17th-19th century
1013	15	176	Slipware	17th-18th century
1013	4	57	Midland yellow ware	16th-18th century
1013	6	227	Midland Purple	15th-16th century
1013	24	244	Mottled ware	17th-18th century
1014	6	76	Coarse Earthenware	17th-19th century
1014	4	136	Midland Purple	15th-16th century
1014	3	94	Midland yellow ware	16th-18th century
1014	7	54	Slipware	17th-18th century
1014	1	3	Medieval green glaze	12th-15th century
1014	1	12	Mottled ware	17th-18th century
1014	4	65	Cistercian/Black ware	17th-18th century
2000	1	64	Coarse Earthenware	17th-19th century
2000	3	7	White bodied earthenware	18th-20th century
2000	1	24	Salt glazed stoneware	17th-19th century
2001	12	185	Coarse Earthenware	17th-19th century
2001	120	309	White bodied earthenware	18th-20th century
2001	18	176	Salt glazed stoneware	17th-19th century
2001	2	50	Mocha/Yellow Ware	19th-20th century
2001	1	5	Slipware	17th-18th century
2001	2	32	Mottled ware	17th-18th century
2002	15	49	Salt glazed stoneware	17th-19th century
2002	1	5	Cistercian/Black ware	17th-18th century
2002	4	161	Coarse Earthenware	17th-19th century
2002	3	73	Midland yellow ware	16th-18th century
2001	102	217	White bodied earthenware	18th-20th century
2002	1	1	Mocha/Yellow Ware	19th-20th century
2003	6	71	Salt glazed stoneware	17th-19th century
2003	21	66	White bodied earthenware	18th-20th century
2003	3	9	Cistercian/Black ware	17th-18th century

2003	1	14	Coarse Earthenware	17th-19th century
2003	1	8	Porcelain	18th-19th century
2008	1	65	Coarse Earthenware	17th-19th century
2008	3	61	White bodied earthenware	18th-20th century
2008	2	40	Cistercian/Black ware	17th-18th century
2008	1	23	Salt glazed stoneware	17th-19th century
2010	8	237	White bodied earthenware	18th-20th century
2010	2	47	Coarse Earthenware	17th-19th century
2012	1	14	White bodied earthenware	18th-20th century
2012	1	65	Coarse Earthenware	17th-19th century
2012	1	2	Mottled ware	17th-18th century
2012	2	12	Salt glazed stoneware	17th-19th century
2015	26	153	White bodied earthenware	18th-20th century
2015	3	27	Midland yellow ware	16th-18th century
2015	16	62	Cistercian/Black ware	17th-18th century
2015	3	20	Mocha/Yellow Ware	19th-20th century
2015	3	180	Midland Purple	15th-16th century
2015	3	17	Salt glazed stoneware	17th-19th century
2015	2	2	Mottled ware	17th-18th century
2015	2	18	Slipware	17th-18th century
2015	1	4	Medieval green glaze	12th-15th century
2016	2	20	Medieval green glaze	12th-15th century
2018	69	257	White bodied earthenware	18th-20th century
2018	11	170	Coarse Earthenware	17th-19th century
2018	1	2	Slipware	17th-18th century
2018	10	85	Salt glazed stoneware	17th-19th century
2018	1	1	Cistercian/Black ware	17th-18th century
2018	3	7	Mocha/Yellow Ware	19th-20th century
2018	4	2	Mottled ware	17th-18th century
2018	1	7	Red bodied earthenware	18th-19th century
2018	2	7	Midland yellow ware	16th-18th century
2019	3	50	Coarse Earthenware	17th-19th century
2019	3	9	White bodied earthenware	18th-20th century
2022	3	34	White bodied earthenware	18th-20th century

9.3 Animal Bone

9.3.1 A total of 524 fragments of hand-collected animal bones were recorded during the WDC4 excavations (Table 1). The finds were recovered from levelling layers, alluvial layers, allotment layers, as well as features and environmental samples. A number of these contexts contained finds from a wide date range, indicating that much, if not all the bone is also likely to have been redeposited, likely during the late 19th and 20th centuries. This was evident in a number of contexts, in which the bone colour and condition of certain specimens were noticeably different from other bones within the same context. Even so, the majority of the bone was in good condition. There was limited evidence for gnawing by dogs, whilst a small number of bones showed signs of butchery and burning.

9.3.2 The assemblage was dominated by bone from the main domestic mammals, with sheep and sheep/goat bones the most frequent, followed by cattle, then pigs. A number of

domestic bird bones were also present. The only wild specimens were red deer, rabbit and cod family. The main domesticates were represented by a range of elements, including those from the head and feet, as well as the more meat-bearing parts of the body.

9.3.3 In addition to the hand-collected bone, a small amount of bone was retrieved from environmental samples taken from (1013) and (1015) (Table 3). The vast majority of the remains comprised small, unidentifiable fragments, although bones/teeth of cattle, pig and sheep/goat were also present.

9.3.4 Given the size of this assemblage and the amount of mixing of material from different periods, it is no interpretive value for the site. No further work is required on the material and it could be disposed of, if deemed appropriate.

Table 2: Number of Identified Specimens (NISP) by context recovered by hand collection

	Context															
Species	**1001**	**1003**	**1006**	**1010**	**1011**	**1012**	**1013**	**1014**	**1015**	**2001**	**2003**	**2008**	**2016**	**2018**	**2019**	**TOTAL**
Cattle	1	1	5		1	3	5	1			1		2	1		21
Sheep/goat		4	6	1	2	10	9	6	1	1	2		1	4		47
Sheep			2			1	2	1					1	1		8
Pig		1	3		1	3	2	1	1					1		13
Horse			1													1
Red deer			1													1
Rabbit		3			1	1					2		1			6
Chicken/Pheasant/Guinea fowl					2	1										3
Chicken/Guinea fowl		1														1
Goose					1	1						1				3
Mallard					1											1
Cod family						1										1
Large mammal		1	7		3	3	2				2	1	1	1		21
Medium mammal		2	3		1	9	1	2	1						3	22
Small mammal														2		2
Bird		2	1			1	1									5
Unidentified		2	2		3	2			2					5		16
TOTAL	**1**	**17**	**31**	**1**	**16**	**36**	**22**	**11**	**5**	**1**	**7**	**2**	**6**	**15**	**3**	**174**

Table 3a: Number of Identified Specimens (NISP) by context recovered from environmental samples

	Context	
Species	**1013**	**1015**
Cattle	2	
Sheep/Goat	2	1
Pig	2	
Large mammal	2	
Small mammal		2
Unidentifiable	228	111
TOTAL	**236**	**114**

9.4 The CBM

9.4.1 A total of 119 brick and tile fragments were recovered from 12 contexts. Eight tile fragments, all recovered from context (1006), 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.

Table 3: CBM, Mortar and drain pipe

Context	Quantity	Weight (g)	Description	Date range
1000	12	566	Brick/tile fragments	Post Medieval
1003	6	180	Brick/tile fragments	Post Medieval
1006	8	882	Brick/tile fragments	Medieval
1006	3	2966	Brick/tile fragments	Post medieval
1011	1	15	Decorated wall tile	Post Medieval
1012	6	586	Tile fragments	Post Medieval
1013	32	358	Tile fragments	Post Medieval
1014	10	391	Tile fragments	Post Medieval
1015	33	432	Tile fragments	Post Medieval
2002	2	553	Tile fragments	Post Medieval
2003	2	123	Tile fragments	Post Medieval
2010	2	365	Tile fragments	Post Medieval
2015	2	385	Tile fragments	Post Medieval

9.5 The Clay Pipe

9.5.1 335 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.

Table 4: Clay pipe

Context	Quantity	Weight (g)	Description	Date range
1000	8	20	Stem fragments and bowl fragment	17th – 19th century
1003	1	10	Mostly complete bowl, forward facing spur	19th century
1003	3	4	Stem fragments	18th-19th century
1003	1	3	Bowl fragment	18th – 19th century
1003	2	13	Bowl, stem, leaf decoration on seam	19th century
1003	8	19	Stem fragments, 1 mouthpiece	19th century
1003	3	6	Stem fragments	17th – 19th century
1003	1	2	Stem fragment	18th – 19th century
1003	2	3	Stem fragments	18th – 19th century
1003	3	9	Stem fragments	17th – 19th century

1006	6	13	Stem fragments, stamp 'Marshall' c.1750-79	18th – 19th century
1006	1	7	Partial bowl, stamp GD George Doughty c.1660-70	17th century
1006	12	29	Stem fragments	17th – 19th century
1006	8	13	Stem fragments	18th – 19th century
1006	7	10	Stem fragments, stamp Wm Sefton c.1696-1729	17th – 18th century
1006	2	2	Stem fragments	18th – 19th century
1006	3	6	Stem fragments	18th – 19th century
1006	1	8	Bowl with partial milled rim and spur	17th century
1009	1	8	Stem fragment	18th – 19th century
1009	6	13	Bowl fragment. Stem fragments	18th – 19th century
1009	1	3	Stem fragment, design- snake?	19th century
1009	1	11	Bowl, leaf design on seam, spur	18th – 19th century
1011	1	7	Bowl with spur. Wm Sefton stamp c.1698-1729	17th – 18th century
1011	1	2	Stem fragment	18th – 19th century
1011	6	14	Stem, bowl fragments, fluted design	18th – 19th century
1011	7	14	Stem, bowl fragments	17th – 18th century
1012	16	37	Stem fragments	17th – 19th century
1012	34	66	Stem fragments	17th – 19th century
1012	5	9	Bowl fragments, II stamp John James c.1684-1720	17th century
1012	1	2	Stem fragment, roller decoration	18th – 19th century
1012	1	16	Bowl, EG stamp – Edward Godfrey c.1684-1720	17th – 18th century
1012	21	46	Stem fragments	17th – 19th century
1012	2	5	Stem fragments, spur	18th – 19th century
1012	10	23	Stem fragments	18th – 19th century
1013	3	12	Stem fragments, Fleur de Lys stamp – Isaac Dance c.1860-80	18th – 19th century
1013	50	192	Stem fragments, roller decoration	17th – 19th century
1013	1	3	Stem fragment	19th century
1013	6	30	Bowl and bowl fragments. RB stamp, Richard Brinsley c.1682-6	17th century
1013	11	30	Stem fragments	17th-19th century
1013	2	20	Bowls. RB stamp, Richard Brinsley c.1682-6	17th – 18th century
1013	1	6	Stem fragment, crocodile motif, Isaac Dance c.1860-80	19th century
1013	7	23	Stem fragments, roller decoration	18th – 19th century
1013	2	5	Stem fragments	17th – 18th century
1013	1	3	Stem fragment	18th – 19th century
1014	2	12	Bowl fragments	17th – 18th century
1014	9	29	Stem fragments	17th – 18th century
1015	1	10	Mostly complete bowl with heel	17th century
1015	2	4	Stem fragments	17th - 18th century
2000	2	4	Stem fragments	18th – 19th century
2001	1	1	Stem fragment	18th – 19th century

2001	4	6	Stem fragment	18th – 19th century
2001	8	11	Stem fragments	18th – 19th century
2002	1	5	Stem fragment	18th – 19th century
2002	3	3	Stem fragment	18th – 19th century
2002	19	27	Stem fragments	18th – 19th century
2003	2	4	Stem fragments	18th – 19th century
2003	1	2	Stem fragment	19th century
2003	4	8	Stem fragments	18th – 19th century
2008	3	4	Stem fragments	18th – 19th century
2010	2	2	Stem fragments	18th – 19th century
2010	1	2	Stem fragment	18th – 19th century
2015	1	4	Stem fragment	17th – 18th century
2015	1	5	Bowl fragment	18th – 19th century
2018	36	67	Stem, bowl fragments	17th – 19th century
2019	1	3	Stem fragment	18th – 19th century

9.6 The Glass

9.6.1 A total of 119 glass fragments weighing 3241g were recovered. These came from 15 contexts. Post medieval and modern bottle fragments formed the bulk of the assemblage. Two bottles, one complete and another base, were identifiable to The Home Brewery, Daybrook. Several toy marbles and small fragments of decorative glass completed the assemblage.

Table 5: Glass

Context	Quantity	Weight (g)	Description	Dating
1001	1	5	Marble	19th - 20th
1002	6	69	Bottle glass, clear, blue, green fragments	19th - 20th century
1003	25	480	Bottle glass, clear, blue, green, fragments, marble	19th - 20th century
1009	4	68	Green bottle fragments	19th - 20th
1011	15	757	Green bottle fragments	19th - 20th
1012	19	475	Clear and green bottle fragments	19th - 20th
1013	4	3	Green bottle fragments	18th - 20th
1015	2	2	Green bottle fragments	19th - 20th
2000	2	52	Clear decorative fragments	19th - 20th
2001	5	54	Marble, clear and brown bottle fragments	19th-20th century
2002	2	10	Green bottle fragments	18th - 20th
2003	12	771	Complete bottle, clear fragments, opaque white decorative fragment.	19th - 20th century
2008	6	88	Brown bottle rim with lid, clear bottle	19th - 20th
2012	13	138	Bottle glass, clear, blue, green, brown	19th - 20th
2015	3	269	Clear bottle glass	19th - 20th

9.7 The Shell

9.7.1 A total of 25 fragments of marine shell were collected from nine contexts on the site, weighing 427g. The bulk of the assemblage consisted of oyster shell fragments, with smaller quantities of mussel and cockle also being present.

Table 6: Shell

Context	Quantity	Weight (g)	Description	Date range
1000	1	21	Complete oyster shell	Unknown
1003	1	1	Mussel shell fragment	Unknown
1006	1	1	Mussel shell fragment, complete cockle shell	Unknown
1009	1	1	Complete cockle shell	Unknown
1011	6	70	Oyster shell fragments, complete snail shell	Unknown
1012	2	145	Complete oyster shells	Unknown
1013	10	179	Oyster shell complete and fragments	Unknown
2001	2	8	Oyster shell fragments	Unknown
2018	1	1	Complete cockle shell	Unknown

9.8 Carbon rods

9.8.1 Four fragments of carbon rod were collected from two contexts. 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 during the coronation festivities for King George VI.

Table 7: Carbon Rods

Context	Quantity	Weight	Description	Date range
1002	2	31	Carbon rod	19th – 20th
1003	2	17	Carbon rods	19th – 20th

9.9 Miscellaneous

9.9.1 A few other finds, which do not fit into the categories above, were also collected on the site. These include two bone (?) handles and fragments of a leather shoe

Table 8: Miscellaneous

Context	Quantit	Weight	Description	Date range
1003	1	1	Carved bone/ivory handle	Post medieval?
1003	10+	160	Fragments of leather shoe	Post Medieval?
1012	1	28	Mortar fragment	Post Medieval
1013	1	17	Bone (?) handle	Post Medieval?
1013	1	1	Copper Alloy pin	Post Medieval
2018	4	174	Shoe fragments – metal heel?	Post Medieval?

9.10 Conclusion

9.10.1 Given the disturbed nature of the ground the finds are likely to be residual with the assemblage as a whole being representative of a site of medieval origin with later post-medieval development, and as such merits further study.

10 Archaeobotanical Remains – Stacey Adams

10.1 Introduction and Methodology

10.1.1 Two bulk environmental samples were taken from layers archaeological investigations at Brewhouse Yard, Castle Boulevard, for the recovery of environmental remains such as plant macrofossils, charcoal, faunal remains and mollusca as well as to assist finds recovery. The 40 litre bulk environmental samples were described as potentially waterlogged in the field, however, in house inspection found them to be inorganic. The samples were processed by flotation tank using a 500µm mesh for the heavy residue and a 250µm mesh for the flot. The residues were sorted, by hand, for environmental and artefactual remains (Appendix 2) and feature in this report where they add to the existing finds assemblage. 100ml subsamples of the flots were scanned under a stereozoom microscope at magnifications 7x-45x and their contents recorded in Appendix 2. Nomenclature follows Stace (1997) for wild plants and Zohary and Hopf (1994) for cereals. Charcoal was not present in sufficient quantities (>3g from the >4mm fraction of the heavy residue) to be submitted for identification. This section discusses the significance and potential of the charred plant macrofossils and their ability to inform on feature function and use.

10.2 Results and Discussion

Samples <1> (1013) and <2> (1015).

10.2.1 The flots from the sampled layers at Nottingham Castle mostly consisted of coal and fired coal with rare inclusions of animal bone, microfauna and modern insect remains. Uncharred seeds of elder (*Sambucus nigra*), fat hen (*Chenopodium album*), common fumitory (*Fumaria officinalis*), blackberry-type (*Rubus* sp.) and sun spurge (*Euphoria helioscopia*) indicate low levels of contamination within the samples. Low numbers of charred plant macrofossils were present in the form of cereal caryopses of rye (*Secale cereale*) and oat (*Avena* sp.) as well as straw fragments. Wild/ weed seeds were present in the form of a brome (*Bromus* sp.) caryopsis and wild radish (*Raphanus raphanistrum*) capsule.

10.2.2 The plant macrofossils identified in the Nottingham Castle samples likely became charred along with the fired coal which appears to have been used as fuel. The cereal remains and straw fragments do not indicate cereal processing and their presence at the site is likely incidental. Bromes and wild radish could have been growing in the arable field or on the peripheries of the site.

10.3 References

Stace, C. 1997. New Flora of the British Isles (2nd ed). Cambridge: Cambridge University Press.

Zohary, D. and Hopf, M. 1994. Domestication of Plants in the Old World (2nd ed). Oxford: Oxford University Press.

11 Geoarchaeological Report

11.1 Introduction and Methodology

11.1.1 Hand augering was utilised to determine the nature of the deposits below the base of Trench 01. Deposits were recovered, photographed, and the descriptions were recorded. Samples were also recovered using a Russian-head attachment which allows the capture of sediment which is retained in sequence (see below).

11.1.2 It was anticipated that deposits would relate to one of the possible original courses of the River Leen (see figure 14). The River Leen is north bank tributary of the River Trent the original course of which was believed to have flowed from west to east, to the south of Castle Rock. In general, very little is known about the earliest course of the Leen.

11.2 Results

11.2.1 Hand augering was conducted at the base of the trench from 2.10m BGL (24.94m AOD) to 4.80m BGL (22.24m AOD) producing a sequence of 2.70m until refusal at the sand and gravels. The simplified lithology of the deposits is outlined in Table 9 below with detailed descriptions following on below this.

Table 9: Simplified lithology of the deposits – Top deposit 'Grey brown silt sand' is context (1015)

Simplified Lithology	Auger Depth (m from trench base)	Thickness	Interpretation	Top Height (mAOD)	Depth (m BGL)
Grey brown silt sand	0.00	0.10	overbank alluvium	24.94	2.10
Dark grey brown sand with silt	0.10	0.50	overbank alluvium	24.84	2.20
Dark grey brown silt clay with sand	0.60	0.30	overbank alluvium	24.34	2.70
Dark grey brown clay sand	0.90	0.20	overbank alluvium	24.04	3.00
Light orange brown sand with clay	1.10	0.10	overbank alluvium	23.84	3.20
Dark grey brown clay sand	1.20	0.40	channel deposits?	23.74	3.30
Mid yellow brown laminated sand	1.60	0.15	channel deposits	23.34	3.70
Dark yellow brown laminated clay sand	1.75	0.25	channel deposits	23.19	3.85
Mid grey brown slightly organic clay sand	2.00	0.15	channel deposits	22.94	4.10
Dark grey brown slightly organic sand clay	2.15	0.35	channel deposits	22.79	4.25
Dark grey brown organic silt clay with sand	2.50	0.10	channel deposits	22.44	4.60
Dark grey brown clay sand with silt	2.60	0.10	channel deposits	22.34	4.70
Small-medium gravels and medium-coarse sands	2.70		channel deposits	22.24	4.80

11.3 Lithology

11.3.1 The deposits comprised the following sequence: the earliest material encountered was small-medium round/sub-round gravel and medium-coarse sand was encountered at a depth of 4.80m BGL (22.24m AOD) representing the base of palaeochannel deposits.

11.3.2 Overlying this was a sequence of further palaeochannel deposits comprising mainly of laminated sands and silts/clays: from 4.80-4.70m BGL there was dark grey brown clay sand with silt, slightly organic and loose. Above this from 4.70-4.60m BGL was dark grey brown organic silt clay with sand and visible plant macro remains with small gravel inclusions. 4.60-4.25m BGL dark grey brown sand clay with fibrous plant macro remains and a large sandstone cobble; 4.25-4.10m BGL slightly organic medium grey brown clay sand; 4.10-3.85m BGL dark yellow brown laminated fine-coarse sand with clay and small-medium quartz pebbles; 3.85-3.70m BGL yellow brown fine to coarse laminated sand with small quartz pebbles; and 3.70-3.30m BGL dark grey brown clay sand with coarse sand, small rootlets and small weathered sandstone fragments.

11.3.3 From 3.30-3.20m BGL Light brown orange sand with clay, small rootlets, rare CBM fragments and flecks of charcoal; 3.20-3.00 BGL dark grey brown clay sand with rare quartz pebbles and charcoal flecks / smears. This likely represents alluvial material accumulated from overbank flooding.

11.3.4 3.00-2.70m BGL dark grey brown silt clay with fine sand, CBM inclusions, plaster, ceramics, and moderate quartz pebble inclusions; 2.70-2.20m BGL dark grey brown sand silt with charcoal fragments, CBM, plaster, and glass, and; 2.20-2.10m BGL mid grey brown silt sand with CBM and plaster fragments with rare quartz pebbles. These deposits are a continuation of the archaeologically derived deposits which have been assigned contexts and are likely to be alluvial deposits accumulated from overbank flooding, although they contained more anthropogenically derived material remains (see 8.1).

11.4 Discussion of deposits

11.4.1 The material observed was mainly sand dominated, deriving from the Nottingham Castle Sandstone (Castle Rock) to the north of the site, and the main formation to the north of the river Leen's previous course. The sandstone is quartz dominated, accounting for the frequency of such pebbles encountered in the material observed throughout the sequence. Most of this material will have entered the sequence via fluvial undercutting of Castle Rock as well as from colluvial processes, in addition to material discarded from the excavations of caves (e.g. Mortimer's Hole) in close proximity to the site (Waltham and Howard 2004).

11.4.2 The earliest deposits were more clayey and organic, indicating periods of stagnation and periods of lower energy. As the deposits were observed with a hand auger, a full interpretation of the sequence is not possible, but it is likely that the sequence represents several episodes of channel activity, from near inactivity with organic waterlogged deposits, to higher energy episodes with more sand dominated deposits.

11.5 Samples

11.5.1 Three Russian-head auger columns were retained: 3.20-3.40m BGL, 4.20-4.40m BGL, and 4.40-4.60m BGL. The columns themselves were sub-sampled for palynology and radiocarbon dating and retained for further investigation. A summary of the sub-samples taken is outlined in Table 10 below.

Table 10: showing depth of sediments retained as sub-samples for both palynology and radiocarbon dating. Recommended sub-samples for radiocarbon dating are highlighted in yellow.

Depth in auger (m BGL)	Pollen	Radiocarbon
3.20	X	
3.22		X
3.23	X	
3.26	X	
3.32	X	
3.39	X	
4.20	X	
4.20		X
4.27	X	
4.34	X	
4.40	X	
4.45		X
4.48	X	
4.50	X	
4.54	X	
4.55		X
4.59	X	

11.6 Results

11.6.1 A sample was submitted from Auger Borehole 1 (Core 3) at a depth of 4.55m BGL (22.51m OD). The sample (bulk sediment humic) returned a Radiocarbon Age of 2274 ± 26 BP with

a calibrated age of 401-211 cal BC at 95.4% confidence. This places the age range within the Middle Iron Age (300-100 BC).

11.6.2 A second sample was submitted from Auger Borehole 1 (Core 1) at a depth of 3.22-3.26m BGL (23.78m OD). The sample returned a Radiocarbon Age of 919 ± 25 BP with a calibrated age of 1030-1169 cal AD. This places the age range within the Saxo-Norman period and the dates the layer to the earliest phase of Nottingham Castle.

11.6.3 Previous radiocarbon age determinations from sites within close proximity to the original course of the River Leen, Broadmarsh (Poole *et al.* 2018) 430m to the east and London Road (Keyworth and Krawiec 2018) 860m to the east, have provided date ranges that are Mesolithic in their earliest sequences (see table 11 below). The addition of radiocarbon age determinations from the samples described above from the Brewhouse Yard excavations would be of vital importance in helping to establish whether the sequence relates to the same suite of deposits encountered at the sites outlined above, and possibly helping to further elucidate the earliest sequences of the River Leen. The lack of well dated sequences from Nottingham demonstrates the importance of the deposits recorded at this site that will help to address the research agenda topics set out by the East Midlands Research Framework. Additional work beyond this, such as palynology, would only help enhance this picture further.

Table 11: showing previous radiocarbon dates from sites to the east of Trench 1 relating to the River Leen.

Site	Lab code	Context No Sample no	Depth mbgl/ m OD	Sample Type	D13c	Radiocarbon Age	Calibrated date 95.4%
Broadmarsh	SUERC	1008	2.85-2.87mbgl	Bulk sediment humin	-25.80	6921+/-28BP	5876 to 5732 cal BC
	81638	<1>	21.27m OD				
Broadmarsh	SUERC	1008	3.40-3.44mbgl	Bulk sediment humin	-25.60	8272+/-28BP	7453 to 7396 cal BC and 7377 to 7187 cal BC
	81637	<1>	20.72m OD				
London Road	BETA	WS06	4.3mbgl	Roundwood	-28.00	680+/-30BP	1270 to 1316 cal AD
	490499		21.21m OD				
London Road	BETA	WS03	4.65mbgl	Radial woodchip with sapwood	-26.90	6160+/-30BP	5214 to 5022 cal BC
	490498		20.43m OD				

11.7 References

Poole, K, Renner, P, Hooley, T, Davies, G, Krawiec, K. 2018. Broadmarsh Bus Station and Car Park, Nottingham: An Archaeological Evaluation. Unpublished Trent & Peak Archaeology Report 165/2018.

Keyworth, T and Krawiec, K. 2018. Lace Market Point, London Road, Nottingham. Archaeological Monitoring and Recording of Window Samples and Boreholes: Updated. Unpublished Trent & Peak Archaeology Report 091/2017

Waltham, T and Howard, A. 2004. Castle Rock. *Mercian Geologist* ***16*** *(1): 37-42*.

12 Discussion

12.1 Trench 01

12.1.1 Trench 01 revealed a number of stratigraphic deposits, the presence of which suggested that this area had not been developed at any point.

12.1.2 The earliest and deepest deposits revealed by the auger boreholes were interpreted to be channel deposits associated with the River Leen, dated to the Middle Iron Age at a depth of 22.51 AOD. The second radiocarbon date of the earliest overbank alluvium at a depth of 23.78m AOD highlighted the presence of a buried landsurface of a Saxo-Norman date and therefore from the earliest phases of the construction of Nottingham Castle. The build-up of alluvium from this period could be direct evidence of the presence of the milling complex first mentioned in the 12th century (Lomax 2017). The alterations to the bank caused by the development of the mills, quays and sluices would have slowed the flow of the river and caused a faster rate of deposition on the banks. The build-up of alluvial deposits from this date suggests the continual use and alteration of Brewhouse Yard from the 11th century onwards.

12.1.3 Later deposits (1013) – (1015) revealed within the auger and bulk environmental samples and those also exposed during the excavations contained pottery and CBM suggesting a potential date of the 17th to 18th century. The macrofossils revealed a low number cereal remains and straw fragments, which indicated a lack of cereal processing by this time. The presence of bromes and wild radish suggest that there were still some open fields within the Brewhouse Yard complex in the 17th and 18th Century, however the large presence of small bone fragments and other artefacts could indicate that the River Leen was being used as a waste disposal area.

12.1.4 Deposits above these in the stratigraphical sequence were interpreted as related to the gardens for the castle as shown on Badder and Peat's map of 1744.

12.1.5 Disturbed made ground deposits containing CBM and a high number of artefacts (1003), (1006) and (1008) were likely to date to the period when the River Leen was culverted below what is now Castle Boulevard in the 19th century and the area was landscaped to form a public garden area in 1977.

12.2 Trench 02

12.2.1 Trench 02 revealed a number of pits cut into loose degraded sandstone bedrock, all containing fragments of CBM, waste material and finds dating to the 18th-19th century, suggesting these features to be rubbish pits. The corner of a small structure [1017] was revealed in the northeast end of the site, however the use of perforated bricks suggests its modernity as machines for the pressing and moulding of bricks were invented in the mid-late 19th century. It is possible that brick structure [1017] relates to the ceramic drainage pipe within cut [2013] that was located in the southwest corner of the site orientated northeast to southwest.

12.2.2 Plate 15 is a watercolour of Brewhouse Yard and the Castle by J. Edwards, painted c.1861-1881. The foreground shows a lack of buildings to the south of the current Museum of Nottingham Life and seems to show the ground level to be significantly lower than what it is today. The buildings had been demolished by the time of this painting and are possibly the reason for the ground reduction. It appears that the back of the cellars are just visible in the painting. The foreground surface is also quite light in shade, suggesting that this is either a hardcore surface or the natural sandstone has been exposed by removing any topsoil and subsoils layers from this area. The presence of natural sand (2009) and bedrock (2026) at such a shallow depth in Trench 02 suggests that all of the material deposited above it dates to the 20th century, after this watercolour was painted. No other archaeological observations were made.

13 Conclusion

13.1.1 Excavations at Brewhouse Yard did not reveal any evidence for 17th – 19th century buildings. It is possible that all remains were completely removed from the area with the footprint of Trench 02, which was later used as an area of refuse disposal before it was landscaped in the 20th century.

13.1.2 The environmental samples and radiocarbon dates taken from Trench 01 do seem to substantiate the documentary evidence that provide us with a basic timeline of the uses of Brewhouse Yard, despite the fact that no structural evidence for the medieval mills or the 17th and 18th century gardens were revealed. Further works focussed along the edge of Castle Boulevard could ascertain the true locations of such structures. Further works closer to Castle Rock itself in the form of boreholes may reveal more evidence for how the gardens were used under Crown ownership before 1621.

14 Bibliography

Binns, L. 2018, *Nottingham Castle, Outer Bailey, Nottingham -We Dig The Castle! Training Excavation. Written Scheme of Investigation.* Trent & Peak Unpublished Report

British Geological Survey 2015. *Geology of Britain Viewer.* [Online] Available from: mapapps.bgs.ac.uk/geologyofbritain/home [Accessed: 24/05/17]

Chartered Institute for Archaeologists, 2014a. *Code of Conduct.* CIfA; Reading.

Chartered Institute for Archaeologists, 2014b. *Standard and Guidance: Archaeological Field Evaluation.* CIfA; Reading.

Chartered Institute for Archaeologists, 2014c. *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials.* CIfA; Reading.

Chartered Institute for Archaeologists, 2014d. *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives.* CIfA; Reading.

Drage, C. 1999. *Nottingham Castle: A Place Full Royal* (Second Edition) Nottingham: Thoroton Society of Nottinghamshire

English Heritage, 2008. *Management of Research Projects in the Historic Environment, PPN3 Archaeological Excavation.* [Online] Available from: *historicengland.org.uk/images-books/publications/morphe-project-planning-note-3/* [Accessed: 21/01/19]

Gill, H. 1909. The Old Inns of Brewhouse Yard. *Transactions of the Thoroton Society, XIII.* [Online] Available from: www.nottshistory.org.uk/ [Accessed 21/01/19]

Hammond, T. W. 1926 *Nottingham Past and Present : Fifty Reproductions of Crayon Drawings by T. W. Hammond with introduction, historical and descriptive notes by J. H. Walker*. [Online] Available from: www.nottshistory.org.uk/ htm [Accessed 21/01/19]

Hicklin, J. 1836. *The History of Nottingham Castle from the Danish Invasion to its Destruction by Rioters, in 1831.* London: Hamilton, Adams & Co.

Holland Walker, J. 1928a. An Itinerary of Nottingham: Nottingham Castle. *Transactions of the Thoroton Society*, 32

Holland Walker, J. 1928b. Nottingham Castle. In P. G. Whatnall, (Ed.) *Links with Old Nottingham – Historical Notes by J. Holland* [Online] Available from: www.nottshistory.org.uk/whatnall1928 [Accessed: 24/05/17]

Kinsley, G. 2012. *Nottingham Castle: Development options scoping study (July 2012): Archaeological Impact Assessment.* SLR Ref: 403.2929.00003. SLR: Unpublished Report

Lomax, S. 2017. *Excavations at Brewhouse Yard, Nottingham – Draft Report*. Nottingham City Council: Unpublished report

Nottingham City Council, 2014. *Nottingham City Council Museums and Galleries Service Strategic Plan 2014–2018* [Online] Available from: committee.nottinghamcity.gov.uk/documents [Accessed: 24/05/17]

Parker R. and Binns, L. 2018. *We Dig the Castle*! *A Community and Training Excavation in the Outer Bailey of Nottingham Castle. Report for the 2015-2018 Excavations.* Trent & Peak Unpublished Report

Payne, M. 1992. *Victorian Nottingham In Old Photographs*. Great Britain; Bath Press

Taylor, C. 1983. *The Archaeology of Gardens.* Great Britain: Shire Publications

Watkinson, D. E. and Neal, V., 1998. *First Aid for Finds* (3rd edition). RESCUE & UKIC

15 Acknowledgements

The fieldwork was supervised by Kath Bentley, Tristan Cousins and Laura Binns with the assistance of Paul Renner. The project was managed by Laura Binns and Gareth Davies. Thanks are due to Nottingham City Council for their enthusiasm and support throughout the project and to the army of keen trainees and volunteers for their dedicated assistance and hard work. Thanks are also due to Norma Oldfield, Mike Lobb, Cam Collins, Peter Walsh, Marius Ilie, Kris Poole, Peter Hammond and Rosie Hughes for their specialist input into the post excavation and building recording process. The finds report was amalgamated by Alison Wilson, the geoarchaeological report was written by Tom Keyworth. Finally many thanks are due to Scott Lomax for his guidance and knowledge of the site.

16 Plates

Plate 1: Trench 01 fully excavated, showing the multiple layers of stratigraphy. Scale 1m. Looking east.

Plate 2: Trench 01 fully excavated, showing the multiple layers of stratigraphy. Scale 1m. Looking south.

Plate 3: Trench 01 south west facing section. Scale 1m. Looking north east.

Plate 4: Trench 01 lower half of northwest facing section, showing alluvial layers below garden soil layers. Scale 1m. Looking southeast.

Plate 5: Trench 02 post excavation showing trench narrowed to 4m x 4m due to service pipes. Scale 1m. Looking north

Plate 6: Trench 02 intervention through sand (2009) and (2031) revealing edge of bedrock (2026). Scale 1m. Looking southwest

Plate 7: Trench 02 intervention through sand (2009) and (2031) revealing edge of bedrock (2026). Scale 1m. Looking southwest

Plate 8: Trench 02 post excavation shot of pit [2030] in relation to pit [2016] in the foreground. Scale 1m. Looking southeast.

Plate 9: Trench 02 south facing section of pit [2011] showing recut [2020]. Scale 1m. Looking north.

Plate 10: Trench 02 post excavation shot of construction cut [2014] and wall [2017] in relation to pit [2016] to the west. Scale 1m. Looking southeast.

Plate 11: Trench 02 southeast facing section of construction cut [2014] and wall [2017]. Scale 1m. Looking northwest.

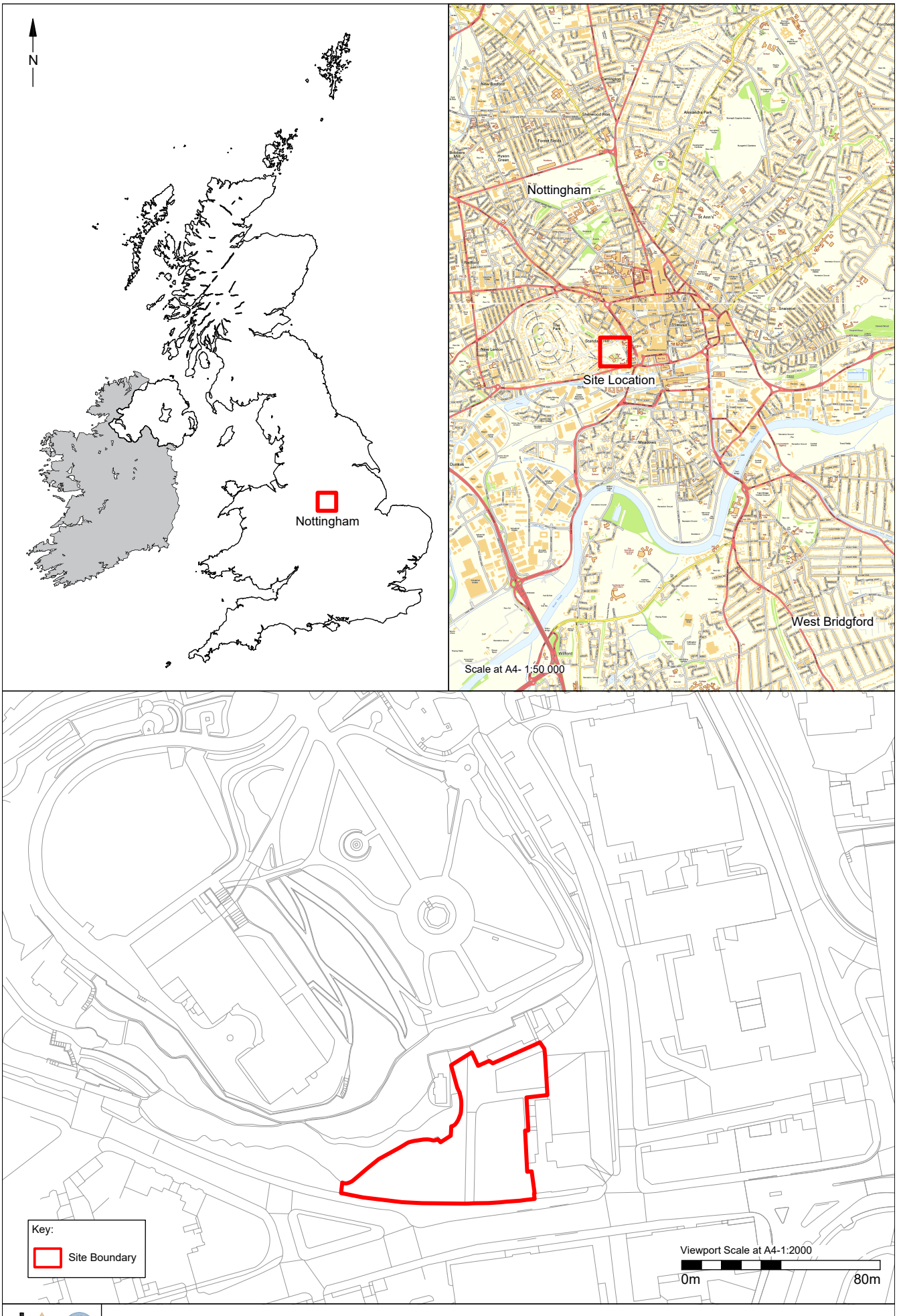
Plate 12: Trench 02 southwest facing section of pit [2016]. Scale 1m. Looking northeast.

Plate 13: Trench 02 post excavation shot of pit [2016] in relation to wall [2017] to the northeast. Scale 1m. Looking north.

Plate 14: Trench 02 northeast facing section showing pits [2013], [2035] and [2029]. Scale 1m. Looking southwest.

Plate 15: A watercolour of Brewhouse Yard and the Castle by J. Edwards, painted c.1860.

17 Figures



Trent & Peak ARCHAEOLOGY

Figure 01 - Location Plan
WDC4 - We Dig The Castle

Scale at A4 - varies
Drawn by MI

N

III

IV

Trench 02

II

Trench 01

I

Key:

Site Boundary

Trench/Test Pit

1970 Excavation Trench

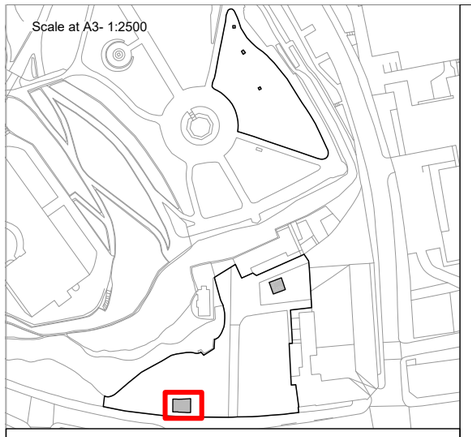
0

40m

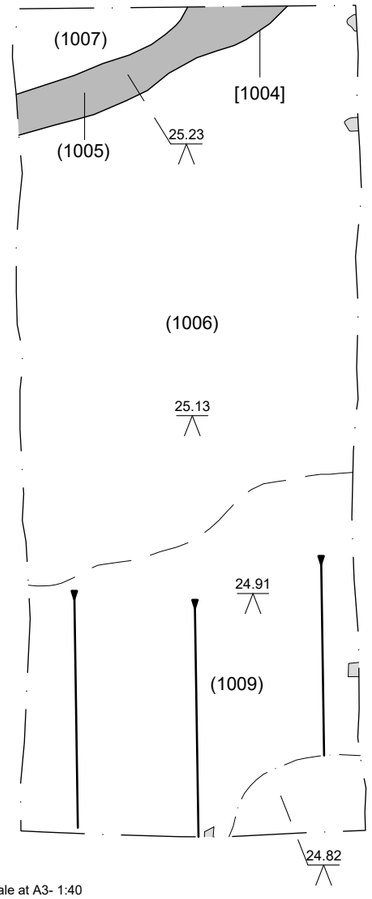
Trent & Peak ARCHAEOLOGY

Figure 02 - Site Plan
WDC4 - We Dig The Castle

Scale at A3 - 1:400
Drawn by MI



Mid-ex Plan of Trench 01



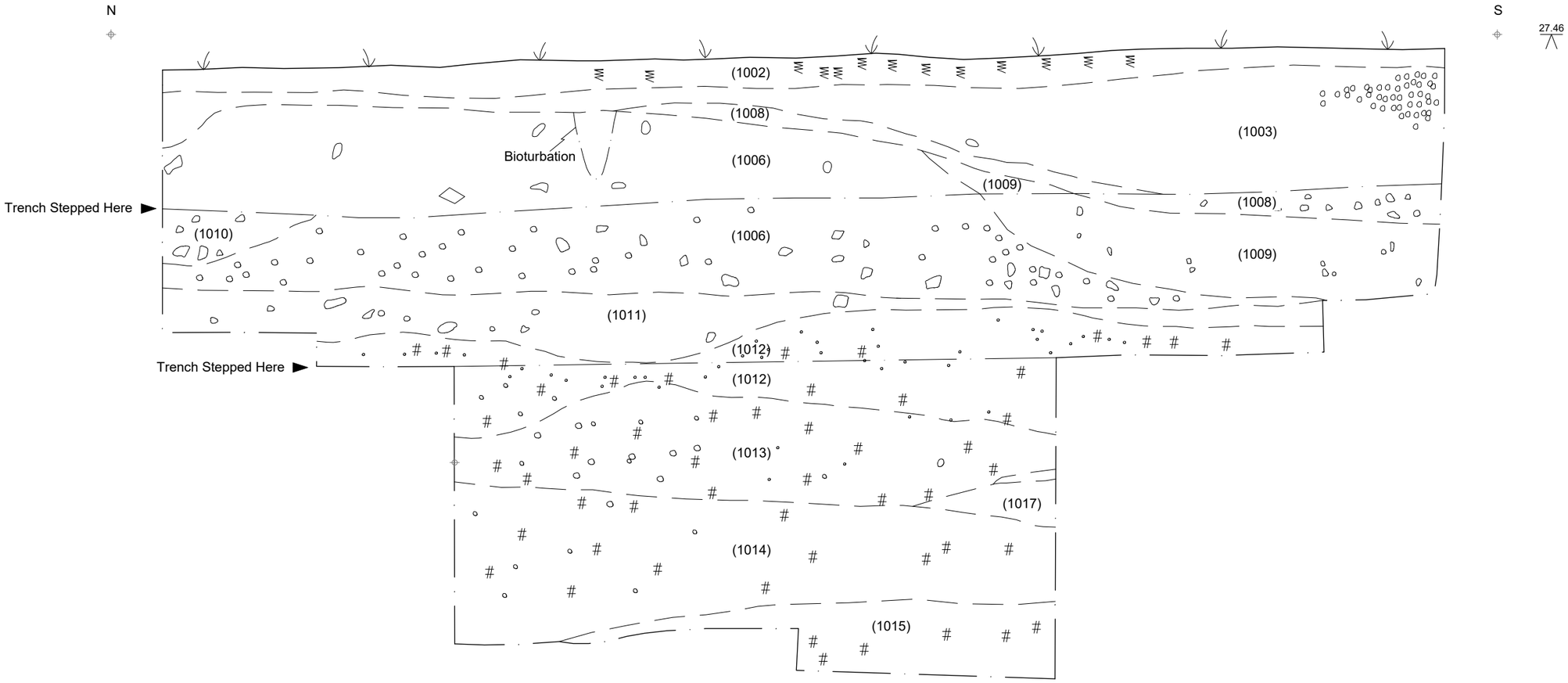
Scale at A3- 1:40

Trent & Peak ARCHAEOLOGY

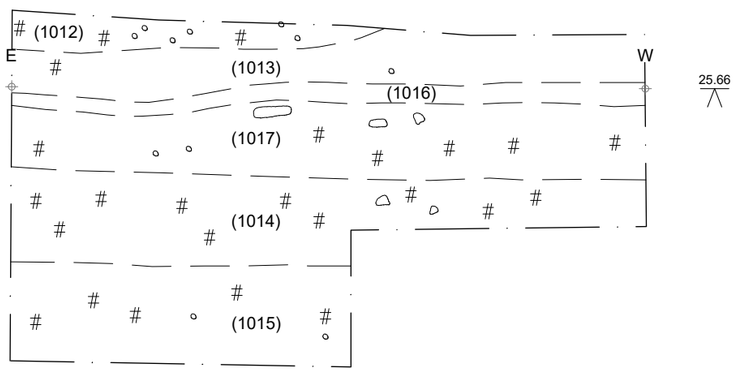
Figure 03 - Post-ex Plan Of Trench 01
WDC4 - We Dig The Castle

Scale at A3 - 1:25
Drawn by MI

DR#01a
West Facing Section of Trench 1



DR#02
North Facing Section of Lower Step of Trench 1

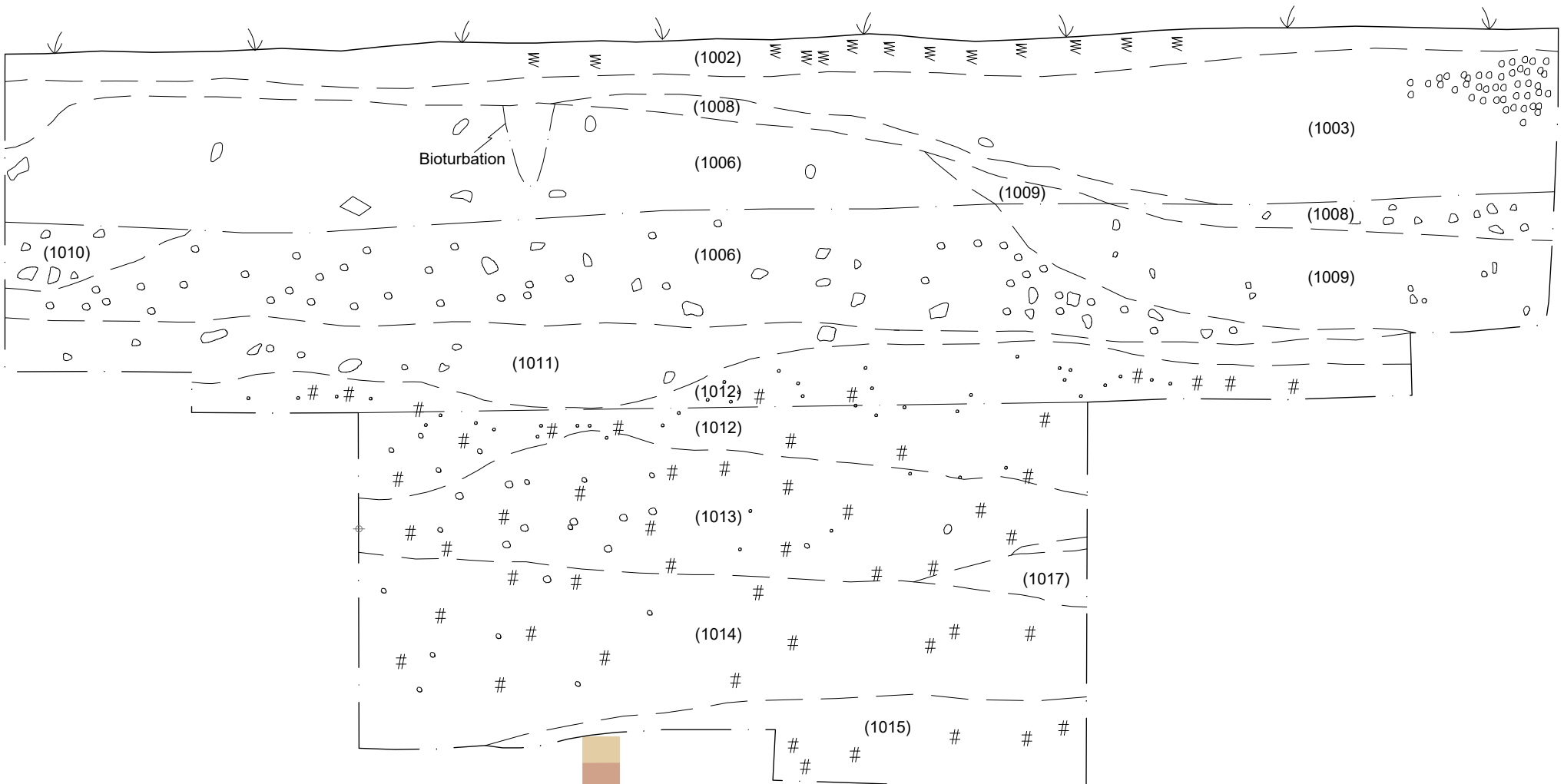


0 2m

Trent & Peak ARCHAEOLOGY

Figure 04 - Section Drawings 01 - 02
WDC4 - We Dig The Castle

Scale at A3 - 1:20
Drawn by MI



Auger Key:

- Silt sand
- Sand with silt
- Silt clay with sand
- Clay sand
- Sand with clay
- Clay sand darker
- Laminated sand
- Darker laminated sand
- Slightly organic clay sand
- Dark sand clay
- Organic silt clay with sand
- Basal sand with silt

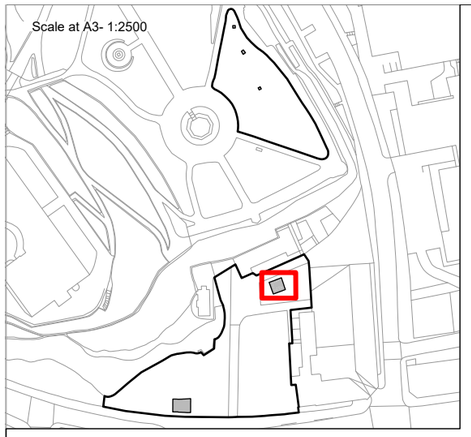
Auger (width not to scale)

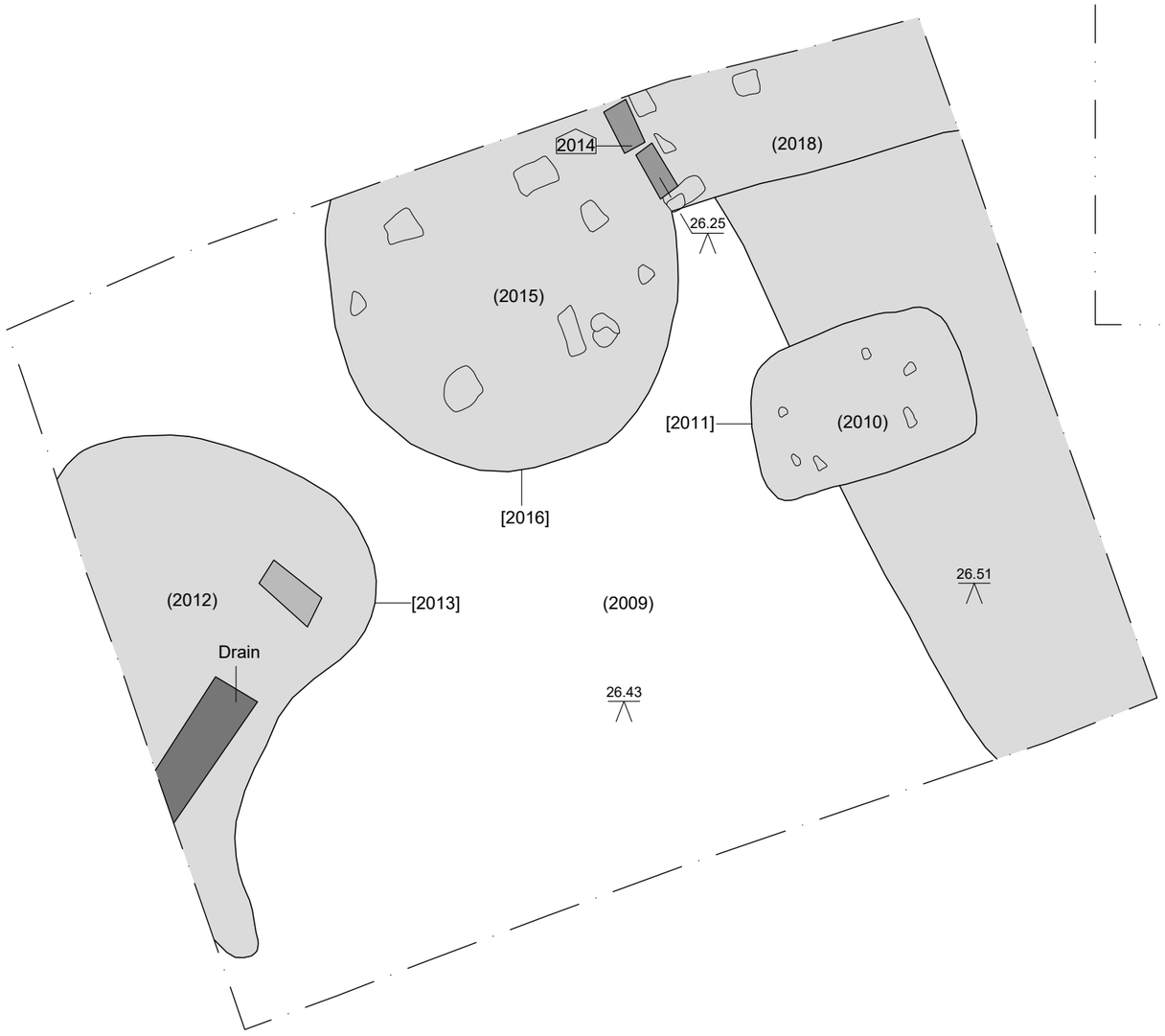
0 400m

Trent & Peak ARCHAEOLOGY

Figure 05 - Auger Section
BES6 - Besthorpe Quarry Extension

Scale at A3 - 1:2500
Drawn by NO





1970 Excavation - Trench IV

N

0 2.5m

Trent & Peak ARCHAEOLOGY

Figure 06a- Mid-ex Plan Of Trench 02
WDC4 - We Dig The Castle

Scale at A3 - 1:25
Drawn by MI

Scale at A3- 1:2500

N

DR#07

DR#05

DR#04

DR#03

DR#08

DR#06

2017

26.15

(2002)

[2014]

26.54

25.58

1970 Excavation - Trench IV

(2028)

[2016]

[2011]

26.05

(2009)

[2030]

26.26

26.51

(2027)

26.73

25.59

(2031)

[2026]

(2032)

(2012)

26.12

(2009)

26.55

[2013]

(2027)

(2002)

0

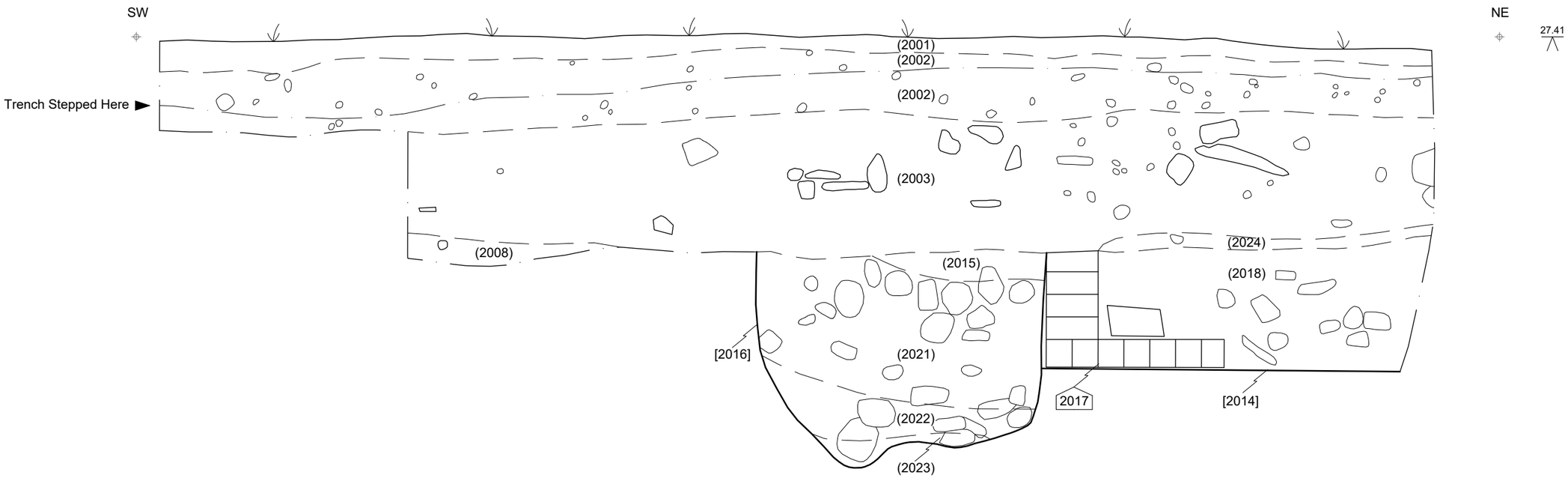
2.5m

Trent & Peak ARCHAEOLOGY

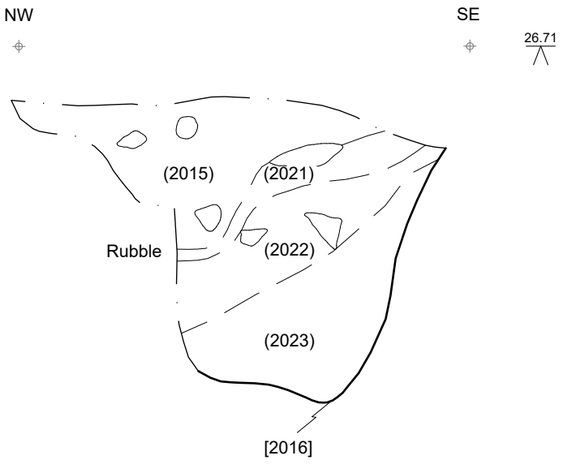
Figure 06b - Post-ex Plan Of Trench 02
WDC4 - We Dig The Castle

Scale at A3 - 1:25
Drawn by MI

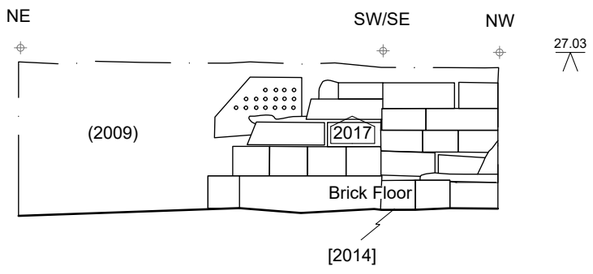
DR#03
South East Facing Section Of Trench 02



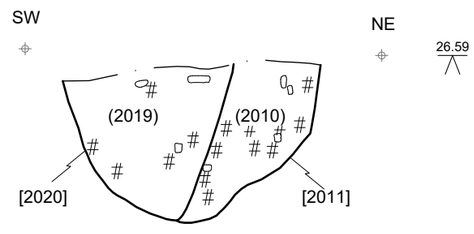
DR#04
South West Facing Section Of [2016]



DR#05
North West and North East Facing Sections Of Wall 2017



DR#06
South East Facing Section Of [2011]

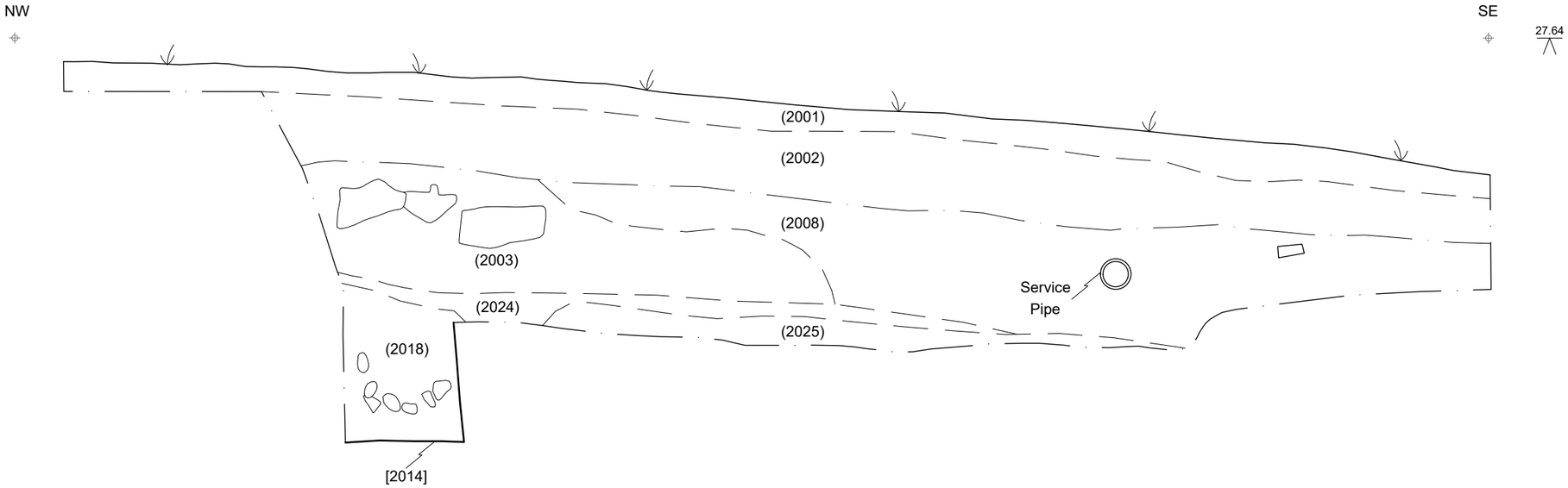


Trent & Peak ARCHAEOLOGY

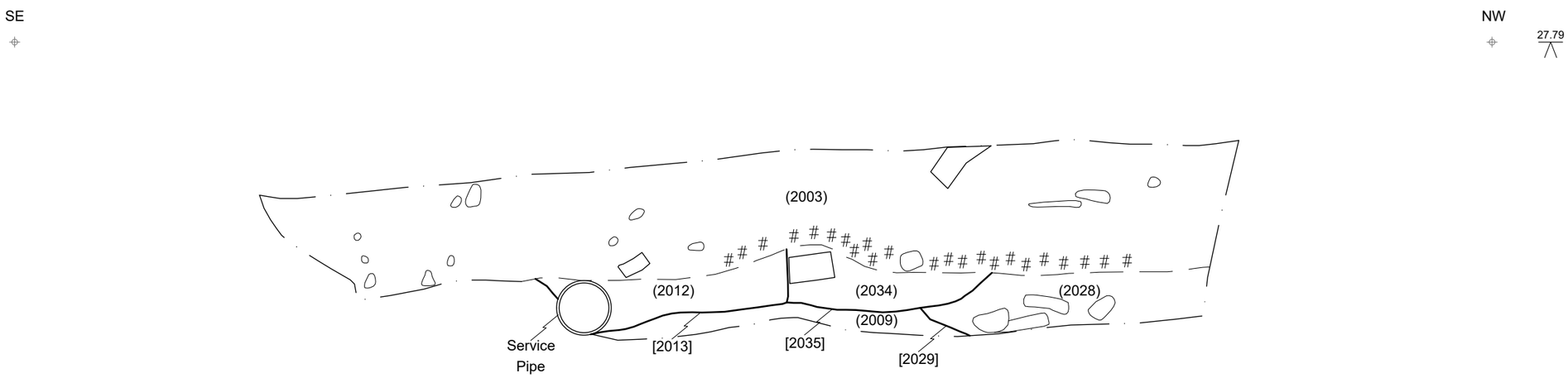
Figure 07 - Section Drawings 03 - 06
WDC4 - We Dig The Castle

Scale at A3 - 1:20
Drawn by MI

DR#07
South West Facing Section Of Trench 02



DR#08
North East Facing Section Of Trench 02



0 2m

Trent & Peak ARCHAEOLOGY

Figure 08 - Section Drawings 07 - 08
WDC4 - We Dig The Castle

Scale at A3 - 1:20
Drawn by MI

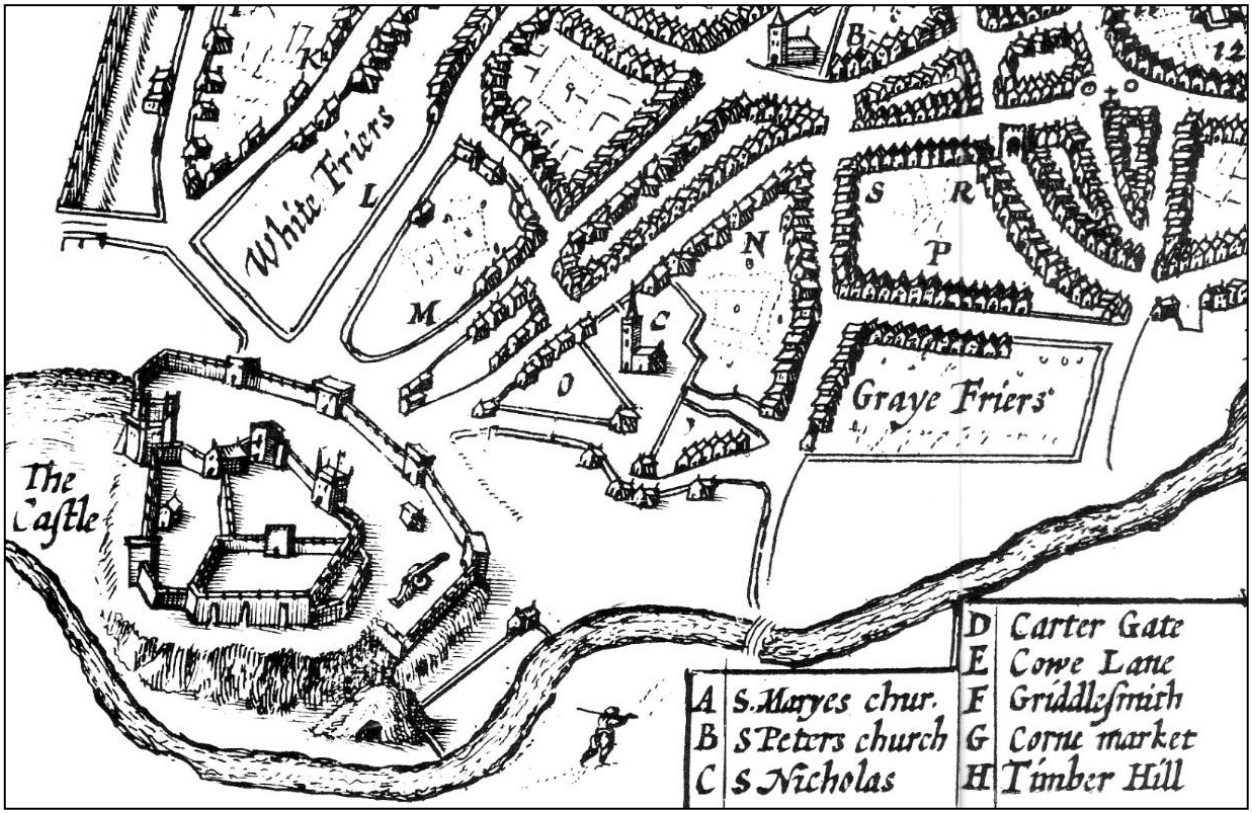


Figure 09: Speed's 1610 Map of Nottingham, showing the layout of Brewhouse Yard with a possible mill to the east. Not to regular scale

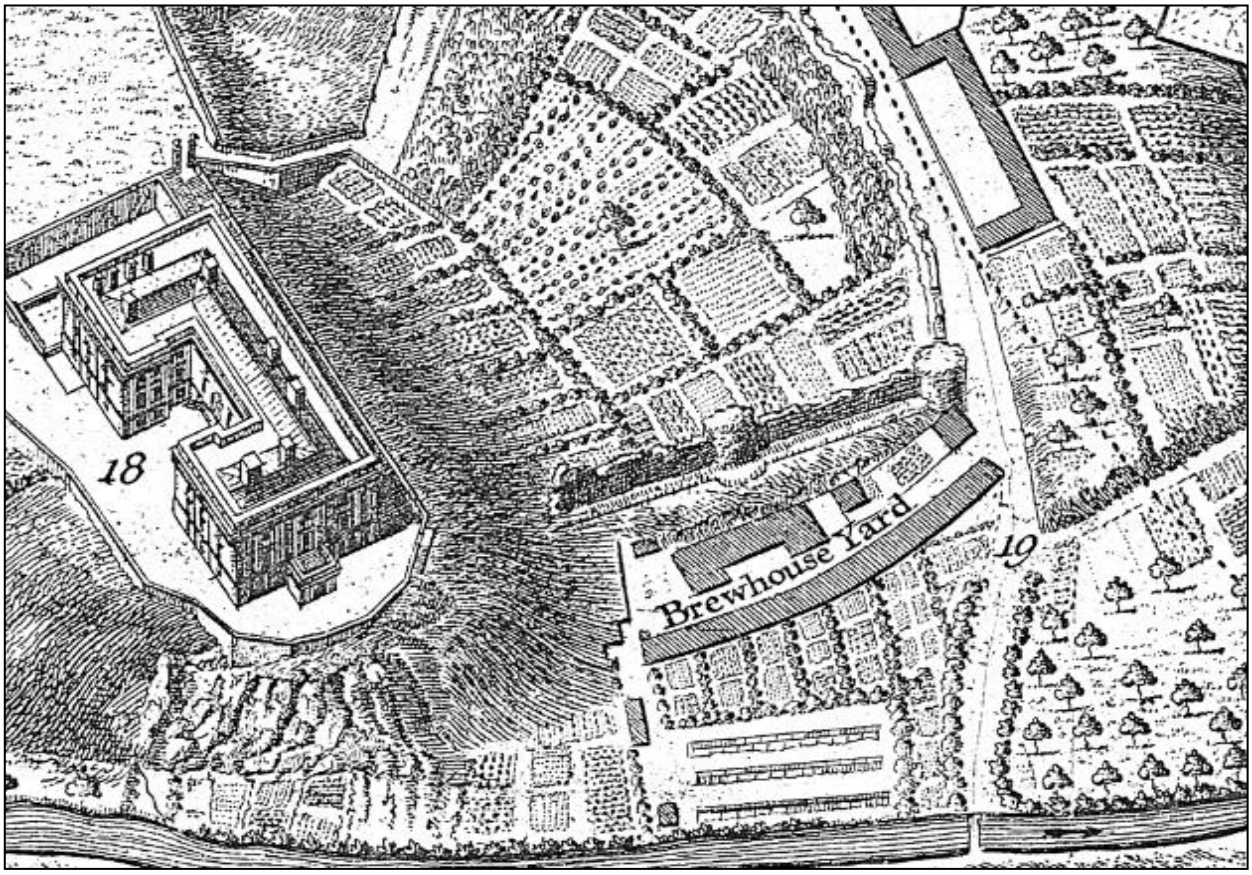


Figure 10: Badder and Peat's map of 1744 showing the double row of properties and gardens. Not to regular scale

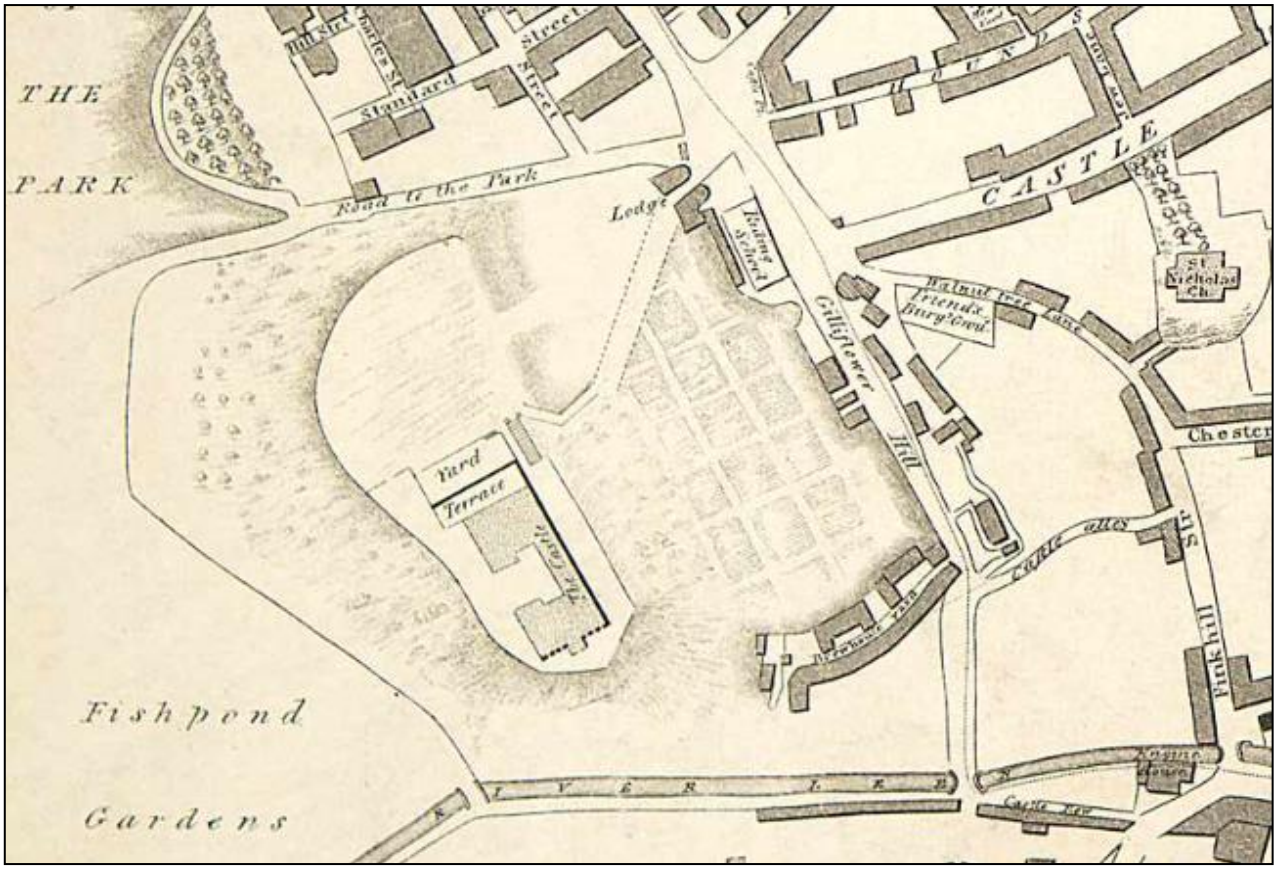


Figure 11: Wild and Smith's 1820 New Plan of the Town of Nottingham, showing slight development within the Brewhouse Yard area. Not to regular scale

Figure 12: Jackson's map of Nottingham, dated to 1861, showing the continuing development of Brewhouse Yard. Not to regular scale

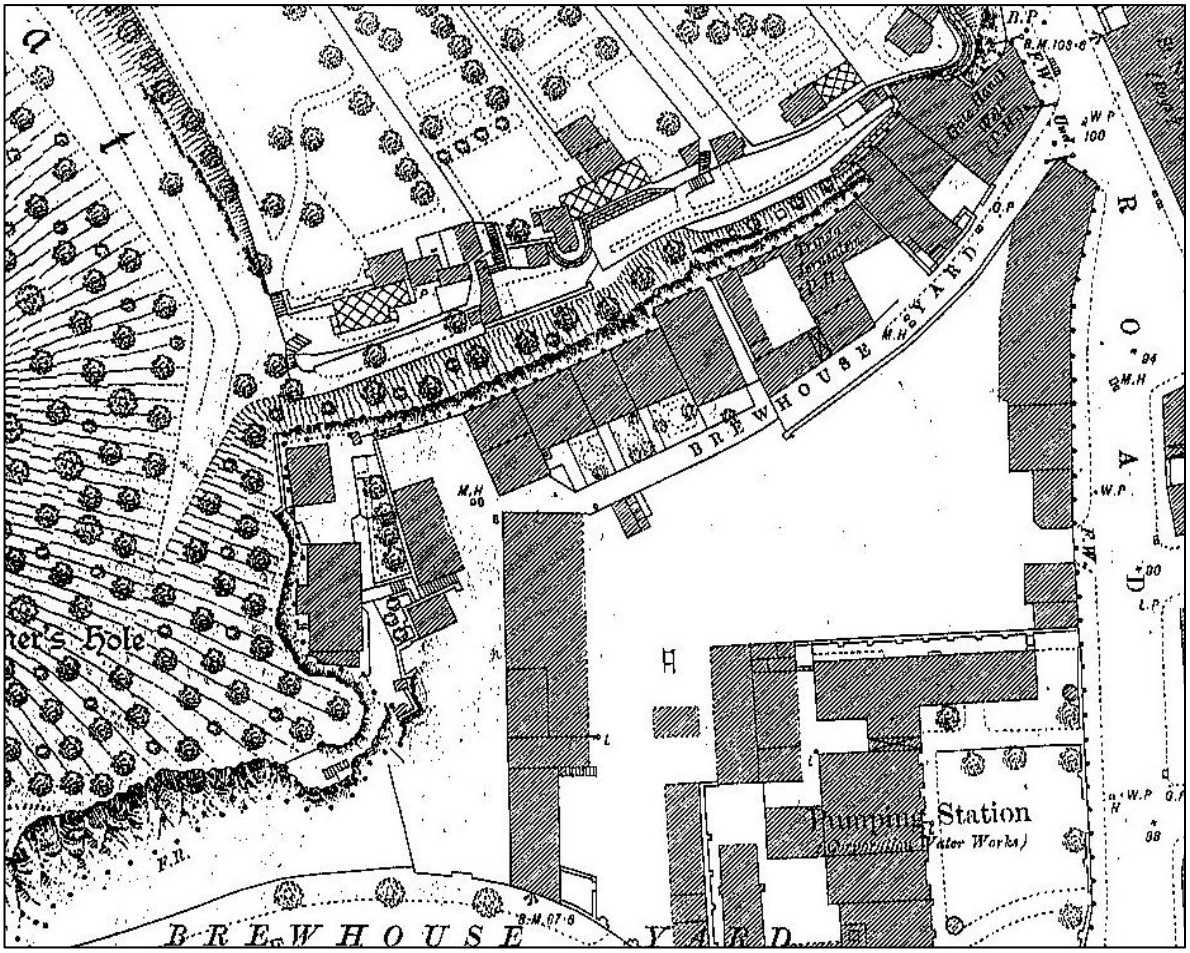


Figure 13: 1881 First Edition OS map showing the line of properties has been demolished and new properties and the pumping station are present toward as the south end of Brewhouse yard. Not to regular scale.

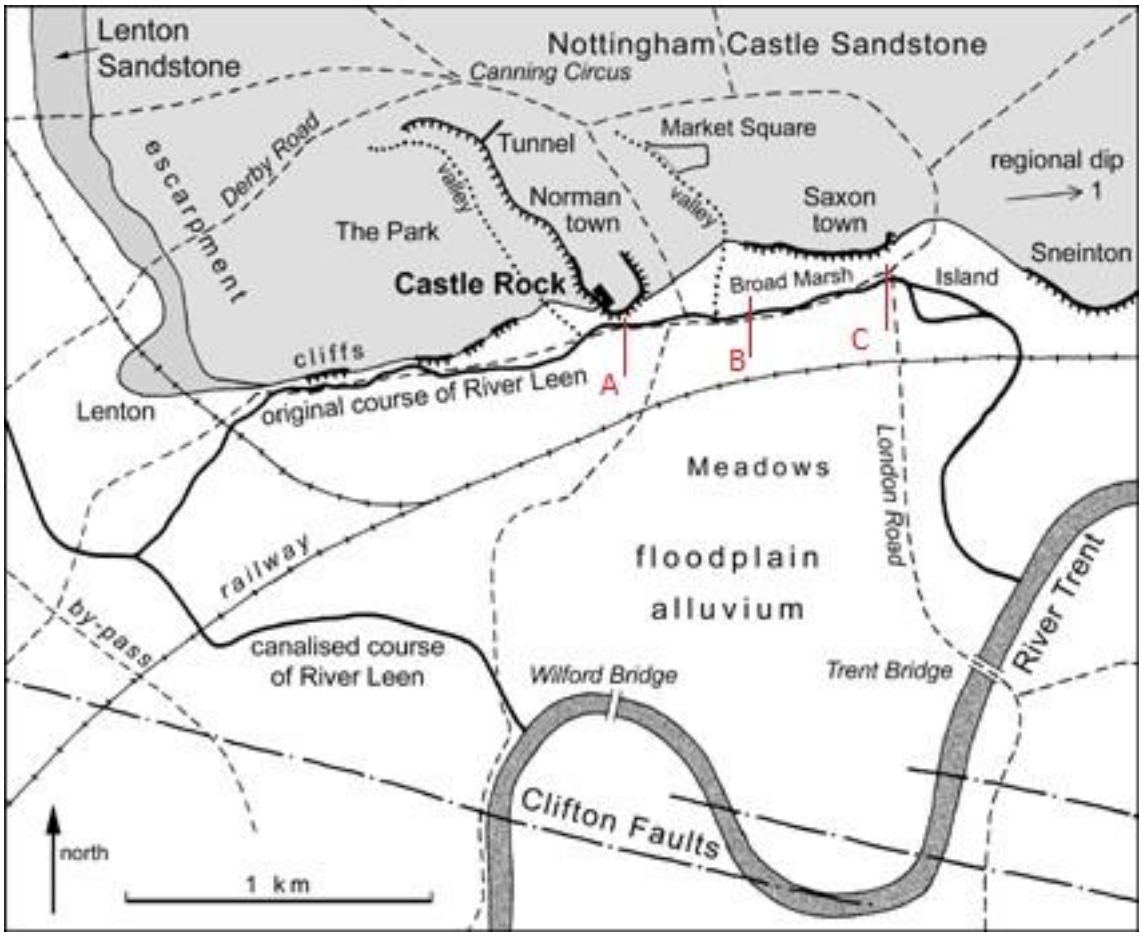


Figure 14: Based on Waltham and Howard 2004, showing the projected course of the River Leen, the location of Trench 01 (A), and the location of previous radiocarbon determinations from nearby sites: Broadmarsh (B) and London Road (C).

Appendix 1: Context list

Trench 01	Category	Description
1001	Layer	Mid greyish brown sand silt topsoil
1002	Layer	Friable light greyish yellow sandy silt pebbly subsoil
1003	Layer	Friable grey brown layer of mixed course sand, gravel and rubble
1004	Cut	Linear cut for a fence or modern service since removed
1005	Fill	Loose dark brown sand
1006	Layer	Mixed sand and rubble layer
1007	Layer	Mid orange brown sand and rubble layer
1008	Layer	Light grey sand and rubble layer
1009	Layer	Dark brown silt sand
1010	Layer	Mixed clay/ mudstone layer
1011	Layer	Red orange sand
1012	Layer	Dark greyish brown clay sand allotment garden soils
1013	Layer	Friable orangey brown sandy silt allotment garden soils
1014	Layer	Loose yellow orangey brown clay sand alluvial deposit
1015	Layer	Loose grey brown clay sand with orange sand lenses alluvial deposit
1016	Fill	Friable dark brown grey sand silt garden soil
1017	Layer	Friable mid grey clay sand alluvial deposit
1018	Layer	Mid-dark grey sand silt garden soil
Trench 02		
2001	Layer	Friable dark brownish black sand silt topsoil
2002	Layer	Merging edge of 0036 and 0038
2003	Layer	Mid brown grey silt sand with brick, tile and stone inclusions
2004	Fill	Light greyish brown silty sand fill of [2005]
2005	Cut	Service trench
2006	Fill	Light greyish brown silty sand fill of [2007]
2007	Cut	Water pipe trench
2008	Fill	Loose yellowish brown sand with concrete, pebbles and brick inclusions
2009	Layer	Orangey yellow sand
2010	Fill	Orangey brown and dark brown silt sand fill of [2011]
2011	Cut	Sub rounded pit
2012	Fill	Dark-mid brown silty sand, fill of [2013]
2013	Cut	Sewer pipe cut
2014	Cut	Construction cut
2015	Fill	Yellow brown sandy silt fill of [2016]
2016	Cut	Sub angular pit
2017	Structure	Brick structure
2018	Fill	Compacted dark brown silty sand, charcoal, mortar and CBM inclusions within [2014]
2019	Fill	Friable dark brown silt sand with mottles of dark yellow sand fill of [2020]
2020	Cut	Sub rounded pit recut of [2011]
2021	Fill	Thick layer of dark grey clinker and sand fill of [2016]
2022	Fill	Dark brown sand fill of [2016]
2023	Fill	Yellow orange sand basal fill of [2016]
2024	Layer	Loose black grey tarmac layer
2025	Deposit	Dark blackish brown sand silt deposit
2026	Layer	Sandstone bedrock
2027	Layer	Cream sand below (2032)
2028	Fill	Firm light brown grey silt sand, fill of [2029]
2029	Cut	Small pit
2030	Cut	Rounded and even sloping pit

Appendix 1: Context list

2031	Layer	Loose mid-light orange sand with mudstone fleck inclusions and occasional riverine pebbles
2032	Layer	Mid grey sand deposit
2033	Fill	Friable mid grey silt sand fill of [2030]
2034	Fill	Mid brown grey sand silt with light yellow mottles, fill of [2035]
2035	Cut	Subrounded pit
2036	Cut	Concave and even sloping cut

Appendix 2: Archaeobotanical Remains

Ecofact and Artefact Quantification

Site:
We Dig the Castle, Nottingham Castle (4539181)

Use " * " rating for enviro remains quantification (* = 1-10, ** = 11-50, * = 51-150, **** = 151-250, ***** = >250).**

Sample Number	Context	Context / Deposit Type and Parent Context	Charcoal >4mm	Weight (g)	Charcoal 2-4mm	Weight (g)	Bone and Teeth	Weight (g)	Burnt Bone	Weight (g)	Fishbone and Microfauna	Weight (g)	Sample Volume (L)	Pottery	Weight (g)	Fe	Weight (g)	Cu Pin	Weight (g)	Clay Tobacco Pipe	Weight (g)	Glass	Weight (g)	CBM (inc. brick/tile)	Weight (g)	Coal (presence only)	Fired Coal (presence only)	Magnetic Material
<1>	(1013)	Organic Deposit	*	<1	**	<1	165	*****					40	*	18	*	5	*	<1	*	2	*	3	**	60	***	*****	*
<2>	(1015)	Organic Deposit	*	<1	**	<1	37	****	***	17	*	<1	40							*	15	*	1	**	202	***	*****	*

Flot Assessment

Sample Number	Context	Context/ Deposit Type and Parent Context	Sample Volume (L)	Flot Weight (g)	Flot Volume (ml)	Volume Scanned (ml)	Uncharred (%)	Seeds Uncharred	Charcoal 2-4mm	Charcoal <2mm	Cereal Remains Charred	Preservation	Weed Seeds Charred	Preservation	Insects, Fly Pupae etc.	Large Mammal Bone	Fishbone & Microfauna	Coal	Fired Coal	Potential	Further work	notes
<1>	(1013)	Organic Deposit	40	159	305	100	95	*Sambucus nigra* ** *Chenopodium album* *	*	***	*Secale cereale* (1) *Triticum* sp. (1) Straw fragment (2)	(++)	*Bromus* sp. (1)	(++)		*		***	*****	No.	None.	
<2>	(1015)	Organic Deposit	40	154	310	100	95	*Fumaria officianalis* * *Samucus nigra* * *Rubus* sp. * *Euphorbia helioscopia* *	*	**	Straw fragment (1) *Secale cereale* (1) *Triticum/Secale* (1)	(++)	*Raphanus raphinistrum* capsule (1)	(++)	*		*	**	*****	No.	None.	

Appendix 3: Written Scheme of Investigation 2018

Nottingham Castle, Outer Bailey

NOTTINGHAM

We Dig The Castle! Training Excavation

Written Scheme of Investigation.

2018

TPA Project Code WDC4

TPA Report no 034/2018

Prepared by Laura Binns

Trent & Peak Archaeology
Unit 1 Holly Lane,
Chilwell,
Nottingham NG9 4AB
General Enquiries 0115 8967 400 Email
trentpeak@yorkat.co.uk

Trent & Peak
ARCHAEOLOGY

Prepared by Date	Laura Binns Project Officer 23/02/18
Approved by Signed Date	Gareth Davies – Head of Operations  23/02/18
Report Number	034/2018
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.

Contents

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 number 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 of Nottingham Castle

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. Historical background of Brewhouse Yard

1.3.1. Brewhouse Yard, a two acre stretch of land between Castle rock and the River Leen, was known as 'Rock Yard' up until c. 1610. The brew house of Nottingham castle was once situated here (Whatnall, 1928). At this time it was a constabulary free from the restrictions imposed upon the rest of the town, and became a 'very unsavoury district' (Gill, 1909)

1.3.2. The John Speede map of 1610 shows the chambers in the rock and one building standing at the corner of the road leading into "the yard." More buildings were added in the late 17th C, as depicted on Thoroton's map of 1677 showing a long row of tenements on the south side of the roadway; also four detached houses with gardens situate between the long row and the River Leen.

1.3.3. The row of red brick houses still visible today are of Stuart construction and were probably built when the first Duke of Newcastle erected the present Castle about the year 1679 and were used to accommodate some of the retainers of the ducal palace.

1.3.4. There is a reference dating to 1610, which states 'visited' people were held at the Brewhouse and under the castle. These are people who were suffering from the plague and other diseases. It is believed that two caves behind the brick houses would have held such people.

1.3.5. Badder and Peat's map of 1744 shows more buildings on the cliff, four tenements on the north side of the road and two inns near the entrance to the yard, "The Trip to Jerusalem," and "The Gate." During the 18th century a number of decaying buildings were cleared away. (Gill, 1909). The rock cut cellars of some of these buildings, are still visible today, most notable the cellars below Rock Cottage.

1.3.6. A pumping station was built in Brewhouse yard, and could still be seen on the 1880 first edition OS map.

1.4. Previous Archaeological Evidence

1.4.1. 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 geo-magnetic, 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).

1.4.2. 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.

1.4.3. 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.

1.4.4. During the third season of *We Dig the Castle!,* excavation work continued on the series of deep cut features, and the dig area was extended to attempt to reveal the full extent of what was now believed to be a 20th C. platform for a search light truck. 19th allotment building features below this platform were also investigated.

1.4.5. 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 (Kinsley 2004).

1.4.6. 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).

1.4.7. 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).

1.5. Community archaeology

1.5.1. Trent & Peak Archaeology have a strong 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.

1.5.2. 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.

1.6. Archaeology Live!

1.6.1. 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.

1.6.2. 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.

1.6.3. 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*.

1.6.4. 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*'.

1.6.5. 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.'*

1.6.6. 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'*.

1.6.7. 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'.*

1.6.8. 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*'.

1.6.9. 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 for the 2018 season

2.1.1. To continue targeted excavations of the Outer Bailey and to investigate other structures within 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 begin targeted excavations of Brewhouse Yard in order to expand our knowledge of its development and the stratigraphy of the Castle Rock area as a whole.

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

2.1.4. 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:

2.1.5. What further environmental evidence remains of the Medieval, post-medieval and pre-20th-century gardens or allotments? (EMH 8.1.4)

Based on TPA report number 079/2017 the provisional aims of We Dig the Castle! 2018 *are as follows:*

2.1.6. 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).

2.1.7. Establish the relationship between potential brick step [0126] and brick floor (0118) and wall [0100] to the east of the site.

2.2. East Midlands Heritage Research Agenda items

The project relates to the following elements of the *East Midlands Heritage - Updated Research Agenda and Strategy (Knight, Vyner and Allen: 2012):*

High Medieval (1066-1485):

7.1 Urbanism

1. How may we enhance our understanding of the chronology, functions and morphology of caves, and in particular the outstanding subterranean resource of medieval Nottingham?

Post Medieval (1485-1750):

8.1 Urbanism: morphology, functions and buildings

1. How were towns organised and planned, and how did population growth impact upon their internal spatial organisation?
2. What can studies of environmental data, artefacts and structural remains tell us about variations in diet, living conditions and status?
3. Can we recognise the emergence of the poorer classes in the developing suburbs?

4. How can we advance studies of building plans and standing remains, especially where hidden inside later buildings, and of caves and cellars?

8.2 Landscapes of display: country houses and gardens

1. Can we elucidate further the use of social space in buildings and across the landscape, the manipulation of vistas and the integration of gardens with the wider landscape?
2. How were garden designs influenced by changing fashions and by a familiarity with Continental garden styles?

Modern (1750 - Present):

9.5 Estates, Parks, Gardens and Woodland

1. What survives of country estates, parks and gardens, how are they distributed, and how should they be classified?
2. Can we establish a typology of buildings and other structures associated with country estates, parks and gardens?

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

2.4.1. All works proposed here may not be run for the full length of the season. Some of these tasks may be approached during the 2019 season.

Archaeological Excavations – Brewhouse Yard

2.4.2. The proposal for 2018 is to hand excavate two trenches in the localities of the excavations completed by C. Young in 1975. The first trench, measuring up to 5 x 5m would be located near to Trench I in order to establish an alluvial deposit model for this area of the medieval town, due to its close proximity to the course of the River Leen. There is also the potential to uncover late medieval features and deposits. The second trench, measuring up to 5 x 5m would be located close to Trench IV (Figures 1-4) in order to partly reveal the footprint of the 18th/19th c buildings that once stood there. The sizes of the trenches allow for the option of stepping the trench edges if there is reason to go deeper than 1m.

2.4.3. All works will be undertaken in accordance with the methodology defined in this Project Design/WSI and to standards defined by CIfA guidelines for recording of archaeological

sites (2014a, 2014b).

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.

2.4.8. The trench location will be agreed upon by the City Archaeologist and Historic England Regional Inspector.

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 location proposed for the trench will provide the best possible opportunity to answer the research questions outlined above, whilst minimising disruption to visitors/events within Brewhouse Yard.

Boreholes – Brewhouse Yard

2.4.11. After Trench 1 has been hand dug to a safe depth of up to 1m, boreholes will be taken in order to recover and retain samples of geoarchaeological/palaeoenvironmental interest if present, as these may contribute to an understanding of the nature of the landscape and the uses to which it was put.

2.4.12. Any groundworks necessary to permit the drilling of geotechnical boreholes, where expected to impact archaeological deposits, will be subject to excavation under archaeological conditions as detailed below

2.4.13. All works will be undertaken in accordance with the methodology defined in this Project Design/WSI and to standards defined by CIfA guidelines for recording of archaeological sites (2014a, 2014b).

2.4.14. All archaeological works will be undertaken by professional archaeologists employed by Trent & Peak Archaeology (RAO), the appointed Archaeological Contractor.

Archaeological Excavations – Wine Cellar Cave

2.4.15. Further hand excavations within the Wine Cellar cave may take place but is heavily dependent on the castle redevelopment scheduled.

2.4.16. All works will be undertaken in accordance with the methodology defined in this Project Design/WSI and to standards defined by CIfA guidelines for recording of archaeological sites (2014a, 2014b).

2.4.17. 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.

2.4.18. The trench location will be agreed upon by the City Archaeologist and Historic England Regional Inspector.

Test pits – Outer Bailey

2.4.19. Test pits will be excavated within the area of the 2017 excavations in order to establish the extent and character of the 20th brick surface, which continued beyond the limit of excavation. Believed to be a trackway for a searchlight truck, it can be assumed that remains continue down to the main vehicle entrance to the castle near the gatehouse. Establishing the full extent of the remains towards the entrance will be determined by the commencement of the commercial works for the new visitors' centre.

2.4.20. An estimated projection of the route of the trackway will be created and agreed upon by the City Archaeologist and Historic England Regional Inspector.

2.4.21. All works will be undertaken in accordance with the methodology defined in this Project Design/WSI and to standards defined by CIfA guidelines for recording of archaeological sites (2014a, 2014b).

Ground Penetrating Radar (GPR) survey – Robin Hood Statue

2.4.22. A GPR survey will be undertaken in order to establish the location of the Outer Bailey ditch that would have ran around the eastern curtain wall and below the gatehouse bridge. This will be subject to a S42 license)

Building recording survey – Outer Bailey

2.4.23. Two 19th century buildings currently used for storage and a Second World War pillbox will be subjected to a level 2 building survey, with elements of a level 3/4 survey described below.

2.4.24. There is scope for surveying Richard's Tower if the private owner grants access. It will be subjected to a level 2 building survey, with elements of a level 3/4 survey described below in order to record the graffiti within the tower in more detail

2.4.25. The Gatehouse will also be surveyed to the same level as Richard's Tower in order to again record the graffiti within the Gatehouse in more detail

2.4.26. King David's Dungeon will also be subjected to elements of a level 3 or 4 survey in order to record the graffiti. This would be heavily dependent on the castle redevelopment schedule.

2.4.27. The methodology employed also follows advice from the Chartered Institute for Archaeologists' (CIfA) *Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings and Structures* (2014).

Post Excavation work

2.4.28. Post excavation work, such as wet sieving, finds processing and digitisation of plans and sections will take place on site and completed by the trainees under the guidance and supervision of TPA staff

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 CIfA guidelines for recording of archaeological sites (2014).

Staffing

3.1.2. The work will be undertaken by suitably qualified members of YAT/TPA (see Section 3.9 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 on the 16th July 2018 until the 17th August 2018 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. Brewhouse Yard will be fenced off with gates locked at night. TPA will be responsible for fencing off the individual excavations with Netlon. Deep excavation signage will also be provided.

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, and in Brewhouse Yard.

3.2.2. All trenches and test pits will be hand excavated using appropriate hand tools under the supervision of qualified TPA staff members.

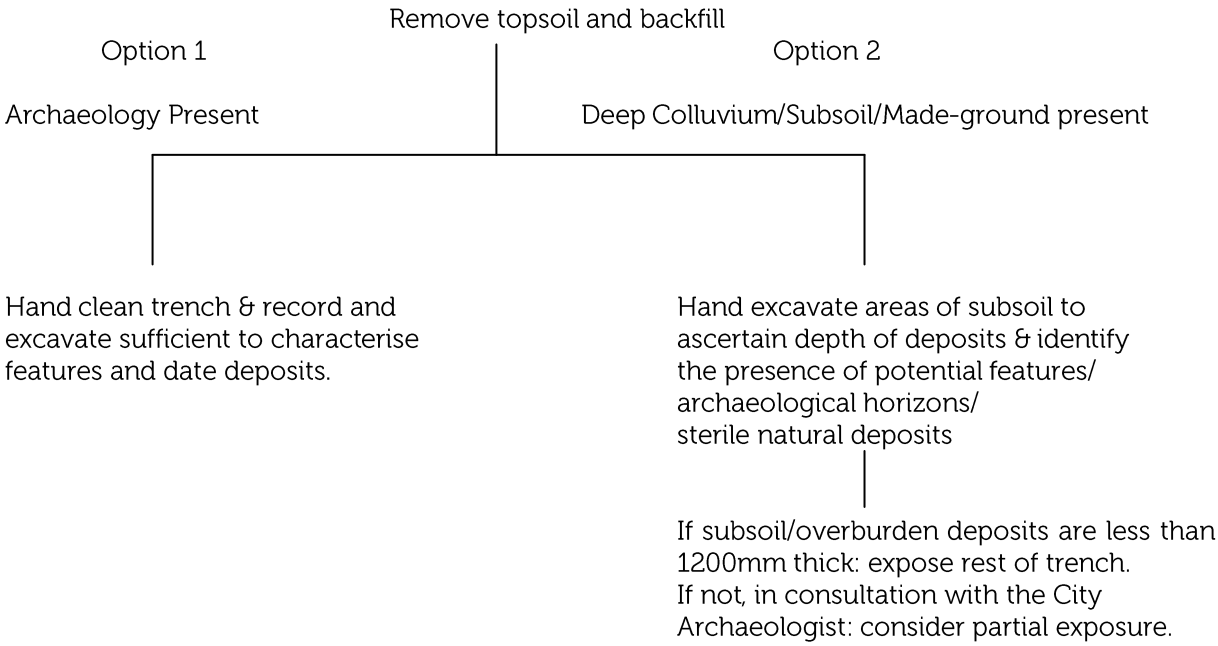
3.2.3. Prior to excavation the area of the trench will be scanned with a CAT Scanner to locate any services that are not shown on the services plan supplied by the client.

3.2.4. 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).

3.2.5. 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.

3.2.6. Subsoil will be excavated in spits no greater than 100mm. Excavation will follow one of two potential sequences depending on the deposits present below topsoil.

Excavation Methodology



3.2.7. 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.

3.2.8. Topsoil, subsoil and deposits will be stacked separately at a safe distance from the trench.

3.2.9. The location of any artefacts recovered in the topsoil/subsoil will be recorded three-dimensionally or by context/spit if appropriate.

3.2.10. 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.

3.2.11. 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.

3.2.12. On completion of the fieldwork the trenches will be backfilled by hand, but not fully reinstated, in consultation with requirements of Nottingham City Council.

Spoil-heaps

3.2.13. 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. Test Pits

3.3.1. Test pits will be excavated at a distance of 5m apart

3.3.2. In accordance with the Scheduled Monument Consent, all test pits will be excavated using appropriate hand tools under the supervision of suitably qualified TPA staff members.

3.3.3. At depths greater than 1m the test pits will be stepped in order to provide safe working conditions.

3.3.4. The locations of artefacts will be located three-dimensionally and/or by Context/spit where appropriate.

3.3.5. Archaeological features will be hand-cleaned and planned. All features present will be excavated sufficiently to determine their plan, form, nature and degree of survival, and to recover any datable artefacts. All features will be recorded stratigraphically using a Single-Context system in plan and section and all finds recovered will be retained for analysis.

3.3.6. On completion of the fieldwork the test pits will be backfilled by hand.

3.4. Archaeological Monitoring of Window Samples and hand auger

3.4.1. Strategy: During continuous monitoring, an archaeologist will make attendance at all groundworks with sub-surface impacts. This is expected to be up to 3 window samples spread across 1 transect line through a 5x5m trench. This will give a maximum spacing of c.1m between any given window sample. The window samples will be achieved with a 'Terrier' rig, which utilises a 100mm diameter core. Sampling will proceed on targeted transects unless site constraints preclude this (possible locations shown on Figure 1). Sampling will aim to achieve enough coverage to better reconstruct the sequence of deposits at the southern extent of the site.

3.4.2. Recording will as a minimum include the location and extent of the monitored areas of excavation, their depth, and the deposits exposed, both by scale drawing (section and/or plan where applicable) and photograph (monochrome prints/digital). All recording & excavation will be carried out as set out below.

3.4.3. 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, particularly alluvium and distinctions within made ground.

3.4.4. *Sediment sampling and recording*: Where suitable deposits are encountered, an appropriate level of geoarchaeological sampling and recording will occur. Suitable deposits comprise those that may address geoarchaeological, environmental, or landscape questions. Samples will only be retained with full approval of the client and the curators.

Recording Methodology

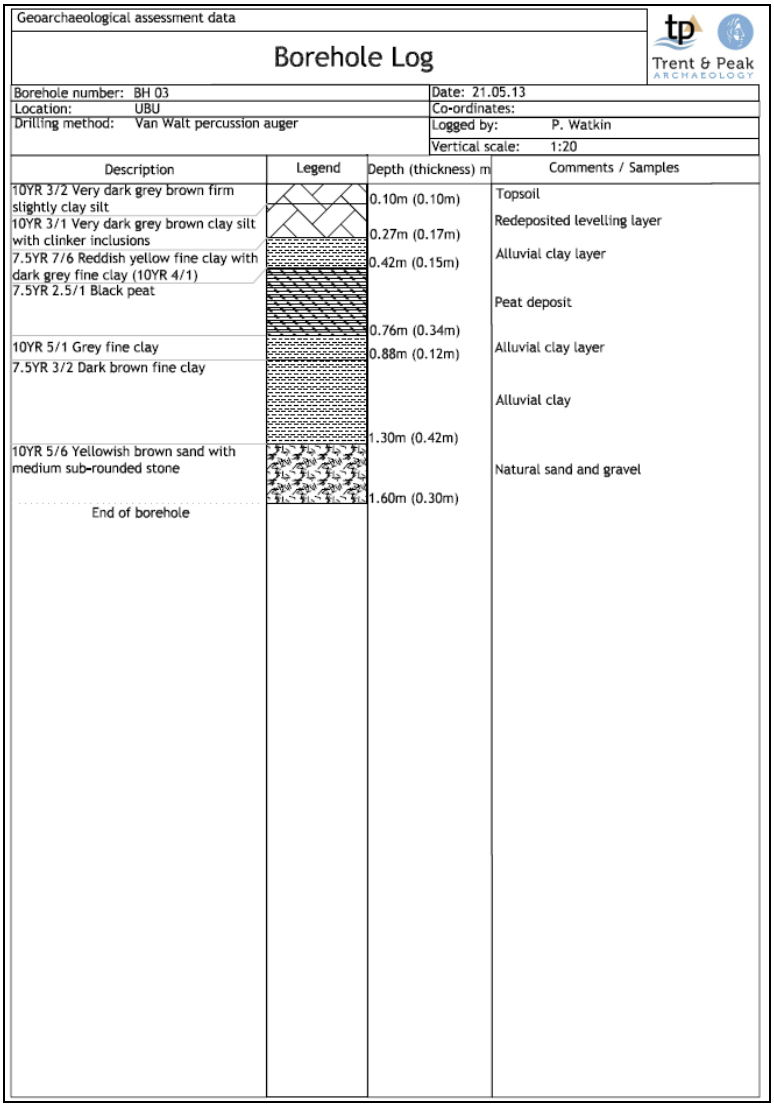
3.4.5. The investigation will be carried out in accordance with the guidelines of the IfA Institute for Archaeologists (Standard and Guidance: for an archaeological Evaluation (2014).

3.4.6. Within the confines of site safety, contexts (the smallest usefully-definable unit of stratification) will be cleaned by hand and recorded.

3.4.7. Investigation will be sufficient to securely establish the character and where possible date, and stratigraphic relationship of features.

3.4.8. In the event that important archaeological remains, for example burial or structural remains, are uncovered, the City Archaeologist will be informed immediately, with a proposal for the most effective measures for dealing with the remains

3.4.9. Recording will as a minimum include the location and extent of the monitored areas of excavation, their depth (above OD if possible), and the deposits exposed, both by scale drawing (section and/or plan where applicable) and photograph (monochrome prints/digital). For all monitored Boreholes, Trial Pits and Window Samples, a formal TPA log will be filled out. An example is provided below:



Ecofact and Artefact Recovery

3.4.10. Artefact Recovery: Any 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. All finds will be hand collected as recommended in First Aid for Finds (by the Archaeology section of the United Kingdom Institute for Conservation). Specialist advice to the project archaeologist will be provided by Alison Wilson (TPA).

3.4.11. Sampling (Palaeoenviromental & Industrial residues): 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 Alison Wilson (TPA). Samples (both palaeoenvironmental and industrial) will be assessed, followed by full analysis and reporting where appropriate following receipt of specialist advice.

Geoarchaeology Sampling and Scientific Dating:

3.4.12. Specialist geoarchaeological advice will be provided by Kristina Krawiec (TPA). Samples will only be taken if suitable deposits are encountered and there is potential to address the

research agenda at this stage If good quality deposits are identified they will generally be subject to controlled investigation at later stages of the scheme.

3.4.13. The following laboratory sampling/dating techniques may be employed if appropriate:

Sediment analysis: Sediment analysis includes a range of techniques, including particle size analysis, calcimetry, organic content analysis, magnetic susceptibility, and pH. These analyses can determine means of sediment deposition, mineral composition of sediments, post-depositional processes, and archaeological interferences with sediment properties. These samples are taken as loose, 'bulk', samples.

Pollen analysis: Palynology is the investigation of the vegetation history through the pollen record. Palynological investigation involves the counting of individual grains of pollen and spores of different types of plants in order to reconstruct local and regional vegetation, and is useful in determining changes in climate, landscape, land use, and human impact on the landscape over time (Moore et al., 1991, 9).

Micromorphology: Micromorphology is the analysis of soils and sediments in thin section. This method, especially when used on archaeological strata, can provide a wealth of information about the archaeology that is not visible when excavating. This includes: evidence of waste disposal, burning, trampling, intense manuring, identifying organic concentrations, and details about the post-depositional processes, to name only a few. (Courty et al., 1989; Goldberg and Macphai, 2006; descriptions as per Stoops, 2003).

Radiocarbon dating: Radiocarbon dating can be employed on samples with suitable organic remains, including macrofossils, charcoal, or fine-grained organic sediment. This method is particularly useful for dating palaeochannel deposits that include peat or peaty sediment. This method requires sending to a private lab, where AMS dating measures the isotopic ratio of carbon to get a date of death of the organic matter.

*Table 1 – Preliminary Site Environmental Sampling Strategy**

Feature type	Sediment conditions	Overall scope of sampling	MM	CS	C14	OSL	Po/Dm	Ch	BP/BS	Bo	Wd
Sampling method:			Undisturbed block sample	Loose bulk sample, representative of particle size, and quantity for desired methods	A4x1cm (seal)	Light-tight canister, moisture/sediment sample; where available, gamma spec background radiation measurement.	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 separately
Archaeological Feature/ buried soil	Waterlogged organic (looks 'peaty')	Each occurrence series of samples if thick (>150mm)		x			x	x	x	x	x
	Dry visible charred material	Each occurrence (C14 selected: best is twigs then layer then flecks)	x	x	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	
	Buried soil horizon	Across soil profile	x			x	x	x			
Sediment change, reaction to environmental	Laminated or changes in sediment in profile	Sample of each sedimentation type, in middle of sediment unit, or over equal interval		x	X	x	x				

change											
Any	Wood structure	Retain all, keep damp, bag each timber separately			X						x
Industrial residues / debris etc.		All process stages to be represented							x		
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) **CS** Sediment sample											

*Adjustments to be made following specialist advice and liaison with EA/development control archaeologist where appropriate.

3.4.14. ***Post–excavation Processing***: Any 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 the appropriate museum on completion of the report, subject to the provisions of the brief and the agreement of the client.

3.4.15. ***Archive***: Any archive created will be compiled with the archive from Stage 2 (see section 4.5 below).

3.4.16. ***Report***: A verbal report and where appropriate textual summary will be provided to the client on completion of fieldwork.

3.4.17. A report on the results, whether positive or negative, will be prepared in the appropriate format and presented to the client and the curator within 4 weeks of the completion of the fieldwork.

3.4.18. A final report on results will be completed and added to the final We Dig the Castle! 2018 report.

3.4.19. 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

3.5. GPR

3.5.1. Data will be collected on transects at 1m intervals using a GSSI SIR3000 unit with a 100MHz antennae giving an approximate maximum depth value of c. 3-5m (depending on ground conditions and attenuation of radar signal).

3.5.2. The antennae will be programmed for a mid-range viewing window (c. 100ns) collecting data at 512 samples per scan at 64 scans per second, with a vertical high pass filter of 50Mhz and a low pass filter of 600MHz. Five gain points will be used to amplify radar signal and with on-site calibration of the radar signal through identification of high magnitude responses.

3.5.3. All data will be processed within the Radan 6.0 software. The data will be treated using a standard processing procedure of cleaning with a background removal filter, correction of point zero position and a variable velocity migration. The transects will be welded into a solid cube and the data will be time sliced at 0.25m intervals (each slice being 0.2m thick) until continuous Sand and Gravel deposits were realised. Each of the time slices will be imported into ArcGIS and interpolated into surfaces for interpretation.

3.6. Building Recording

Level 2 Survey

3.6.1. Drawings –

(1) Measured plans (to scale or fully dimensioned) as existing. These may extend to all floors, or they may be restricted to one or a selection. Plans should show the form and location of any structural features of historic significance, such as blocked doorways, windows and fireplaces, masonry joints, ceiling beams and other changes in floor and ceiling levels, and any evidence for fixtures of significance.

(2) Measured drawings recording the form or location of other significant structural detail (for example timber or metal framing) and of any architectural decoration (for example the moulding profiles of door surrounds, beams, mullions and cornices) or small scale functional detail

(3) Measured cross-sections or long-sections to illustrate the vertical relationships within a building (for example floor and ceiling heights, the form of roof trusses).

(4) Measured elevations

(5) A site plan relating the building to other structures and to any related topographical and landscape features.

3.6.2. Photos –

(1) General views of the building in its wider setting and the building's external appearance. Typically a series of oblique views will show all external elevations of the building, and give an overall impression of its size and shape.

(2) Further views to reflect the original design intentions of the builder or architect,

(3) The overall appearance of the principal rooms and circulation areas.

Level 3 / 4 Survey elements

3.6.3. Drawings –

(1) Copies of earlier drawings throwing light on the building's history.

3.6.4. Digital imagery –

(1) Three-dimensional laser scanned image using a Leica HDS6100 phase-based terrestrial laser scanner, set to 'high' or 'highest' resolution. This produces a point cloud with a point spacing perpendicular to the scanner of 6.3mm or 3.1mm, measured at 10m from the scanner.

(2) Photogrammetry

3.6.5. Photos –

(1) Any external or internal detail, structural or decorative, which is relevant to the building's design, development and use, with scale where appropriate. Any machinery or other plant, or evidence for its former existence.

(2) Any dates or other inscriptions; any signage, makers' plates or graffiti which contribute to an understanding of the building. A transcription should be made wherever characters are difficult to interpret.

(3) Any building contents which have a significant bearing on the building's history (for example, a cheese press, a malt shovel).

3.7. Training under the Archaeology Live! model

Training

3.7.1. The basic structure of 1-2 day, 1-2 week training courses 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.

3.7.2. 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.

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

Taster sessions (1-2 days)

3.7.4. 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.

3.7.5. 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)

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

3.7.7. 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.

3.7.8. The excavation modules will deal with excavation, recording, stratigraphic analysis and finds processing. Additional skills will include photography, building recording, surveying, geoarchaeology and site interpretation. The trainees will follow the YAT single context recording system. There will be finds and environmental sample processing, digitising and analysis elements that will allow the relationship between the contexts and their finds to be considered.

3.7.9. 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.

3.7.10. 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.

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

3.8. Explainer roles

3.8.1. There will be some opportunity to invite volunteers to the works within Brewhouse yard to fill the explainer role, in which the volunteers will talk to the passing public and explain what we are doing and why.

3.9. Project Staffing

3.9.1. 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.

3.9.2. The excavation will be managed by Gareth Davies (Project Manager).

3.9.3. The project team will consist of Laura Binns (Community/Project Officer, TPA), Tristan Cousins (Project Archaeologist, 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.

3.9.4. Trainees 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.

3.10. General Provisions

Notice of commencement

3.10.1. 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

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

Service checks

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

Recording policy

3.10.4. 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.

3.11. Reporting and Liaison

3.11.1. 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.

3.11.2. 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.

3.12. Welfare, Access and Insurance

3.12.1. 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.

3.13. Insurance/compensation

3.13.1. 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.

3.13.2. Any disruption to the land should be resolved directly by NCC Museums and Galleries.

3.14. Health and Safety

3.14.1. TPA will adhere to all relevant health and safety regulations (copies of YAT/TPA Health and Safety policies are available on request).

3.14.2. No archaeological staff or trainees will be allowed to enter the site until they have undergone a health and safety induction organised by TPA and/or NCC site-staff.

3.14.3. 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*.

3.14.4. TPA staff and volunteers will wear appropriate personal protective equipment at all times.

4. DETAILED SPECIFICATION OF ARCHAEOLOGICAL RECORDING

4.1. Procedure

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 (Palaeoenviromental & 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. Finds processing, wet sieving and the digitisation of drawing will all take place on site for the length of the project. Once the project has finished, work on these three elements will continue at the TPA offices.

4.4.2. 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.

4.4.3. Where necessary the documentary archive will be sent to the UAD for copying.

4.4.4. 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 9 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:

- Historic England (Hard and digital copy)
- 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. East Midlands Heritage Framework

4.9.1. The project relates to a number of objectives (See **Section 2** above) stated within the *East Midlands Heritage - Updated Research Agenda and Strategy* (Knight, Vyner and Allen: 2012), the project will therefore be listed on the East Midlands Heritage Wiki page in order to contribute to the research framework. The Wiki page can be found here - archaeologydataservice.ac.uk/researchframeworks/eastmidlands

4.10. Monitoring

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

4.10.2. 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.

4.10.3. 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.

4.10.4. 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 five-week period beginning on the 16th July 2018. Once final confirmation of permissions has been received, the City Archaeologist and Historic England Regional Inspector will be informed of project commencement.

6. REFERENCES

Brown, D.H. 2007. *Archaeological Archives – A guide to best practice in creation, compilation, transfer and curation.* (IFA/AAF). CIfA; Reading.

British Geological Survey 2015. *Geology of Britain Viewer.* [Online] Available from: mapapps.bgs.ac.uk/geologyofbritain/home

Chartered Institute for Archaeologists, 2014a. *Standard and Guidance: Archaeological Field Evaluation.* CIfA; Reading.

Chartered Institute for Archaeologists, 2014b. *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials.* CIfA; Reading.

Chartered Institute for Archaeologists, 2014c. *Code of Conduct.* CIfA; Reading.

Chartered Institute for Archaeologists, 2014d. *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives.* CIfA; Reading.

Drage, C. 1999. *Nottingham Castle: A Place Full Royal* (Second Edition) Nottingham: Thoroton Society of Nottinghamshire

English Heritage, 2002. *Environmental Archaeology.* Centre of Archaeology Guidelines

English Heritage, 2008. *Management of Research Projects in the Historic Environment, PPN3 Archaeological Excavation.* [Online] Available from: *content.historicengland.org.uk*

Historic England 2011, *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* [2nd edition] [Online] Available from: *content.historicengland.org.uk*

Gill, H. 1909. The Old Inns of Brewhouse Yard. *Transactions of the Thoroton Society, XIII.* [Online] Available from: www.nottshistory.org.uk/ articles/tts/tts1909/brewhouseyard1.htm

Kinsley, G. 2000. *An Archaeological Desk Top Assessment of the Outer Bailey at Nottingham Castle.* Trent & Peak Archaeological Unit: Unpublished Report.

Kinsley, G. 2004. Nottingham Castle: Excavations Relating to Service Installations 1998-1999, Trent & Peak Archaeology: Unpublished Report

Kinsley, G. 2012. *Nottingham Castle: Development options scoping study (July 2012): Archaeological Impact Assessment.* SLR Ref: 403.2929.00003. SLR: Unpublished Report

Knight, D. Vyner, B. and Allen, C. 2012. *East Midlands Heritage An Updated Research Agenda for the Historic. Environment in the East Midlands.* Buxton: Press.

Lewis, C. 2006. The Medieval Period. In Cooper, N. *The Archaeology of the East Midlands.* Leicester University Press.

Whatnall, P. (ed.) 2008. *Links with old Nottingham. Historical notes by J. Holland Walker,* (1928). [Online] Available from: www.nottshistory.org.uk/whatnall1928/olde_trip.htm

7. FIGURES

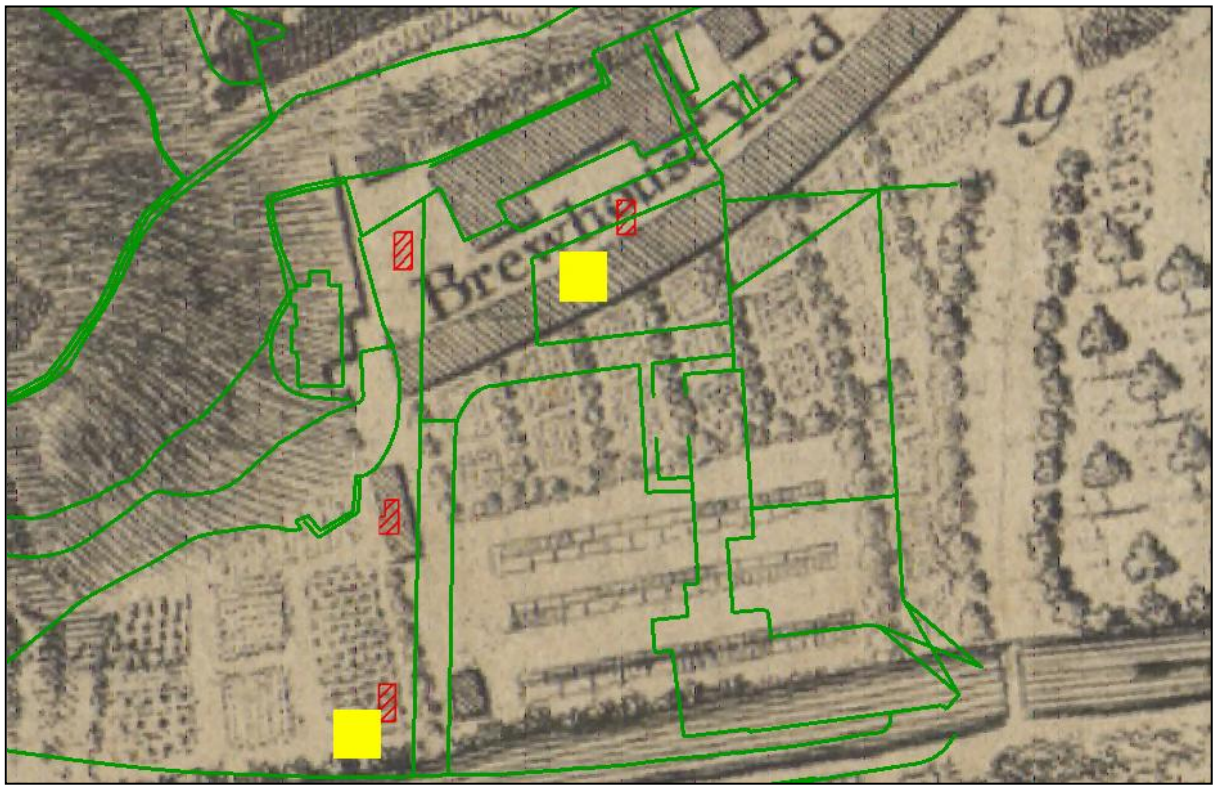


Figure 1: Potential locations of trenches in relation to the 1744 Badder and Peat's Map. Not to regular scale.

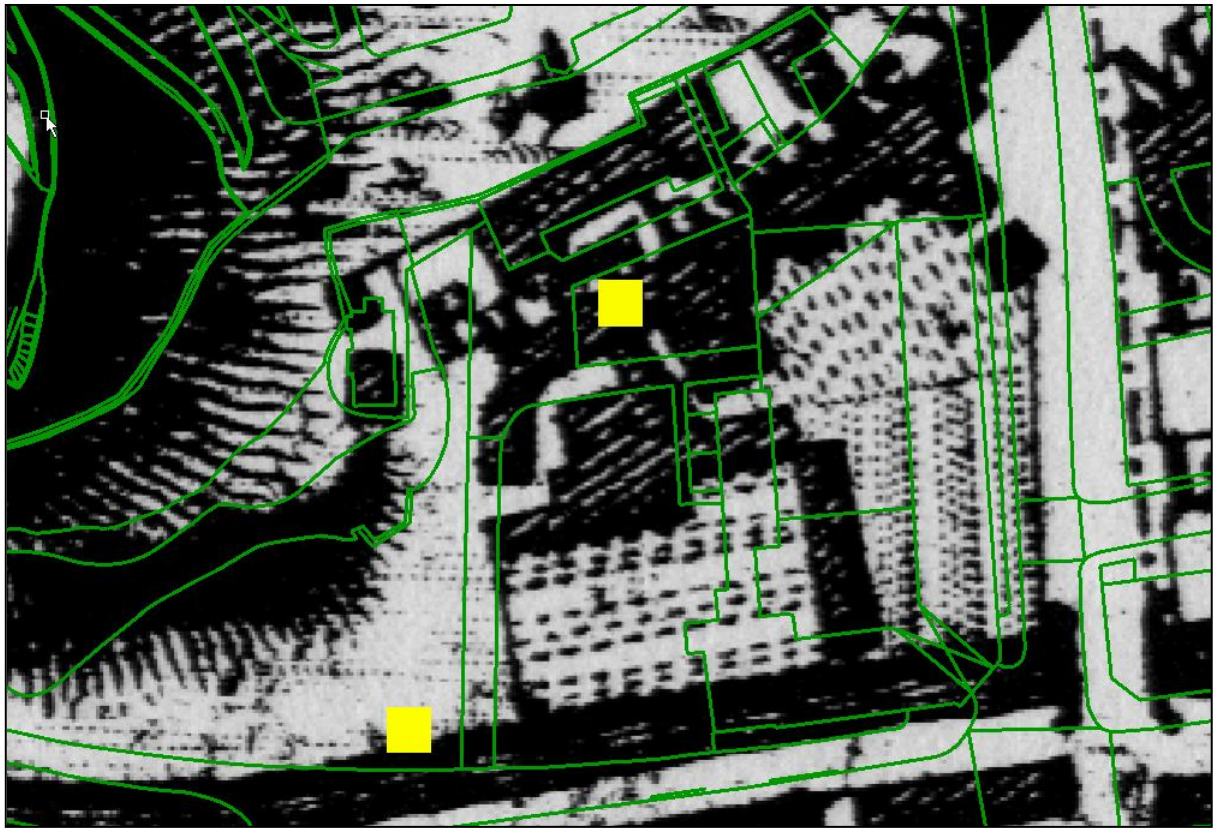


Figure 2: Potential locations of trenches in relation to the 1831 Staveley and Wood map of Nottingham. Not to regular scale.

Figure 3: Potential locations of trenches in relation to the 1881 First Edition OS map. Not to regular scale.

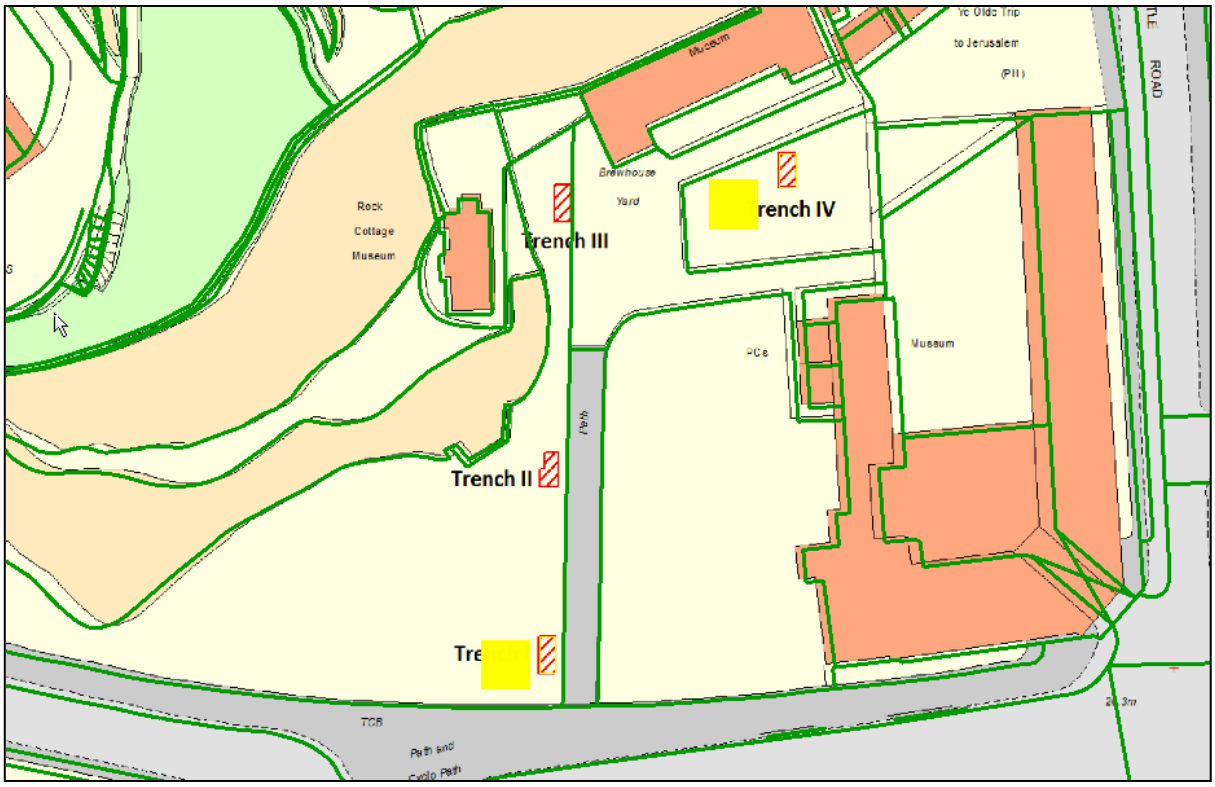


Figure 4: Potential locations of trenches in relation to a modern OS map of Nottingham. Not to regular scale.

APPENDIX 1

Historic England

EAST MIDLANDS OFFICE

Dr Paul Johnson
Trent and Peak Archaeology
Unit 1 Holly Lane
Chilwell
Nottingham
NG9 4AB

Direct Dial: 01604 735460

Our ref: S00110068

24 June 2015

Dear Dr Johnson

Ancient Monuments and Archaeological Areas Act 1979 (as amended); Section 2 control of works
Application for Scheduled Monument Consent

NOTTINGHAM CASTLE, FRIAR LANE, NOTTINGHAM, NOTTINGHAMSHIRE, NG1 6EL
Scheduled Monument No: SM NG 175, HA 1006382
Our ref: S00110068
Application on behalf of Trent and Peak Archaeology

1. I am directed by the Secretary of State for Culture, Media & Sport to advise you of the decision regarding your application for Scheduled Monument Consent received 5 May 2015 in respect of proposed works at the above scheduled monument concerning archaeological excavation. The works were detailed in the following documentation submitted by you:

Scheduled Monument Consent Application Form
Nottingham Castle Outer Bailey: Project Design / Written Scheme of Investgation

2. In accordance with paragraph 3(2) of Schedule 1 to the 1979 Act, the Secretary of State is obliged to afford you, and any other person to whom it appears to the Secretary of State expedient to afford it, an opportunity of appearing before and being heard by a person appointed for that purpose. This opportunity was offered to you by Historic England and you have declined it.

3. The Secretary of State is also required by the Act to consult with the Historic Buildings and Monuments Commission for England (Historic England) before deciding whether or not to grant Scheduled Monument Consent. Historic England considers the effect of the proposed works upon the monument to be acceptable as archaeological excavation supported by a full research design which reasonably justifies the controlled destruction of buried archaeological evidence. This demands the detailed

professional recording and analysis of the results and their preservation in archival and published form in order substantially to increase understanding of the remainder of the monument and archaeology of the period.

I can confirm that the Secretary of State is agreeable for the works to proceed providing the conditions set out below are adhered to, and that accordingly Scheduled Monument Consent is hereby granted under section 2 of the 1979 Act for the works described in paragraph 1 above, subject to the following conditions:

(i) The works to which this consent relates shall be carried out to the satisfaction of the Secretary of State, who will be advised by Historic England. At least 2 weeks' notice (or such shorter period as may be mutually agreed) in writing of the commencement of work shall be given to *tim.allen@historicengland.org.uk* in order that an Historic England representative can inspect and advise on the works and their effect in compliance with this consent.

(ii) All those involved in the implementation of the works granted by this consent must be informed by Trent and Peak Archaeology that the land is designated as a scheduled monument under the Ancient Monuments and Archaeological Areas Act 1979 (as amended); the extent of the scheduled monument as set out in both the scheduled monument description and map; and that the implications of this designation include the requirement to obtain Scheduled Monument Consent for any works to a scheduled monument from the Secretary of State prior to them being undertaken.

(iii) Equipment and machinery shall not be used or operated in the scheduled area in conditions or in a manner likely to result in damage to the monument / ground disturbance other than that which is expressly authorised in this consent.

(iv) The excavation shall be backfilled within one month (or such other period as may be mutually agreed) of the completion of the excavation, to the satisfaction of the Secretary of State, who will be advised by Historic England.

(v) The specification / project design (including analysis, post-excavation and publication proposals) for which consent is granted shall be executed in full, unless variations have been agreed under the terms of condition 1.

(vi) Notwithstanding condition (v) a full illustrated archaeological report on excavations permitted under this consent shall be submitted to Historic England and Nottingham City Council (in hard copy and digital formats) within six months

of the commencement of excavations (or within such other period as may be agreed in writing with Historic England).

(vii) Excavations shall not commence until both the Historic England Inspector of Ancient Monuments and the Nottingham City Council Archaeologist have agreed in writing the trench locations as referenced in paragraph 2.4.6 of the specification / project design.

4. By virtue of section 4 of the 1979 Act, if no works to which this consent relates are executed or started within the period of five years beginning with the date on which this consent was granted (being the date of this letter), this consent shall cease to have effect at the end of that period (unless a shorter time period is set by a specific condition above).

5. This letter does not convey any approval or consent required under any enactment, bye law, order or regulation other than section 2 of the Ancient Monuments and Archaeological Areas Act 1979.

6. Your attention is drawn to the provisions of section 55 of the 1979 Act under which any person who is aggrieved by the decision given in this letter may challenge its validity by an application made to the High Court within six weeks from the date when the decision is given. The grounds upon which an application may be made to the Court are (1) that the decision is not within the powers of the Act (that is, the Secretary of State has exceeded the relevant powers) or (2) that any of the relevant requirements have not been complied with and the applicant's interests have been substantially prejudiced by the failure to comply. The "relevant requirements" are defined in section 55 of the 1979 Act: they are the requirements of that Act and the Tribunals and Inquiries Act 1971 and the requirements of any regulations or rules made under those Acts.

Yours sincerely

Tim Allen
Inspector of Ancient Monuments
E-mail: tim.allen@HistoricEngland.org.uk
For and on behalf of the Secretary of State for Culture, Media and Sport

cc Gordon Young, Nottingham City Council Archaeologist

Historic England

EAST MIDLANDS OFFICE

2nd Floor, WINDSOR HOUSE, CLIFTONVILLE, NORTHAMPTON, NN1 5BE

Telephone 01604 735460
HistoricEngland.org.uk