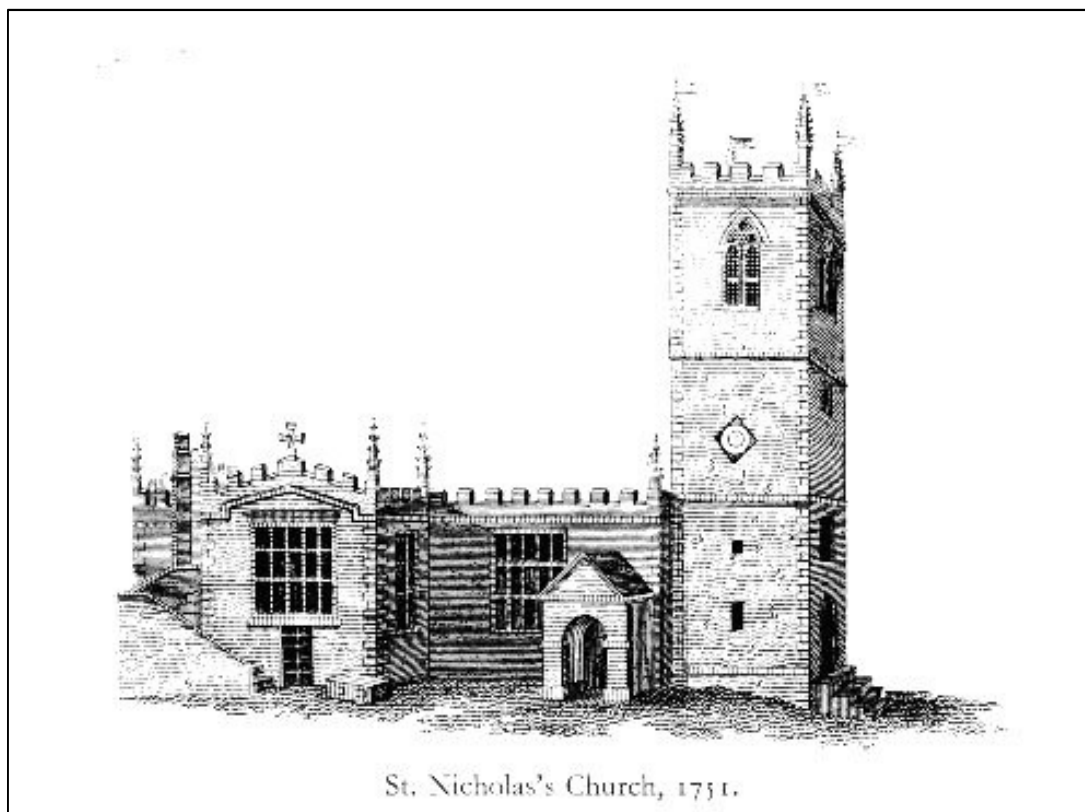


# Nelson's Solicitors Carpark, Nottingham & St. Nicholas Church, Nottingham. Report on an Archaeological Excavation.

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**Prepared for:** Nelson's Solicitors, Nottingham  
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## Acknowledgements

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All fieldwork was supervised by Victoria Owen (author); the project was managed by Tom Hooley and post-excavation was managed by Alison Wilson and Kate Smart. Specialist osteological analysis and reporting was undertaken by Victoria Owen. Thanks are due to Nelson's Solicitors for commissioning the emergency works, and to Scott Lomax with Nottingham City Council for their informed guidance.

## NON-TECHNICAL SUMMARY

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*During February 2019 Trent & Peak Archaeology undertook an archaeological excavation within a c 30m<sup>2</sup> area of land to the rear of 8 Pennine House, Stanford Street, Nottingham (centred on SK 57182 39579). Groundworks undertaken prior to archaeological mitigation revealed evidence for articulated human remains within a portion of land adjacent to the boundary wall of the Church of St. Nicholas. An emergency excavation was undertaken to determine the presence or absence of additional burials. All work was undertaken within the remit of burial licence 19-0018, and to standards specified by Historic England (Mays 2018) and CfA & BABAO (Mitchell and Brickley 2017).*

*The aim of the works was to identify the presence of any archaeological remains which would be affected by intrusive aspects of the development. Any archaeological remains, including human remains, which were found to significantly contribute towards the understanding of the development of the post-medieval church and use of adjacent space were recorded and retained for analysis.*

*The site lies within the former grounds of the church of St. Nicholas, which forms a parcel of land between Maid Marion Way, Castle Gate and Stanford Street. The medieval origins of the church are less well understood, though it is thought to date back to the pre-conquest period (Walker 1940), it is generally accepted that its foundation was soon after the Norman Conquest. Cartographic evidence suggests that the lower burial ground came into use around 1820 (Plate 4) after falling out of use as an orchard. By 1861, the burial ground had fallen out of use as industrial development encroached on the area to the north and north-east.*

*Excavation of the site was undertaken in successive spits of 0.3m to a maximum unshored depth of c 1.1m, which revealed the presence of at least 7 articulated burials within the site boundary. One additional grave (111) was identified at the base of the excavated area, but was not investigated. Each burial was recorded and photographed. Photogrammetry was used to gain a more detailed plan of the interred individuals and ensure an acceptable level of 'preservation by record'.*

*The excavation and subsequent analysis of the skeletal material excavated from the site has allowed for a unique snap-shot of the demography of Nottingham in the 19th century. Whilst the articulated remains represent only a small sub-sample of the inhumations held within the burial ground, detailed analysis revealed the following:*

- *Analysis of the coffin furnishings suggest that the interred individuals were of lower status.*
- *There is no clear division between male or female interments, although an increased number of infant and juvenile remains suggests a higher mortality rate in the young, consistent with statistical data for the period.*
- *At least two individuals are likely to be close genetic relatives. This is reflected in the similarities in biological profile, genetically inherited non-metric traits and inherited conditions (scoliosis). As the individuals were buried within a single burial plot [107], a close familial relationship can be hypothesised.*

*Whilst the excavation revealed no structures or features relating to earlier site use, the presence of pottery and clay pipe, ranging in date from the 13th to 19th century, suggest that the site was subject to continued use throughout the medieval and post-medieval period.*

## 1 INTRODUCTION

---

- 1.1.1 During February 2019, Trent & Peak Archaeology (TPA) were commissioned to undertake an emergency strip, map and record excavation on land to the rear of 8 Pennine House (Nelson's Solicitors, Nottingham) which was in the process of planned redevelopment within the area of the rear carpark, adjacent to the boundary wall of St. Nicholas Church. The work took place within a c 30m<sup>2</sup> area of land to the north-west of the site, against the boundary wall of St. Nicholas Church Nottingham, centred on SK 57182 39579. Excavations were undertaken to a maximum depth of 1.1m below ground level (b.g.l).
- 1.1.2 The aim of the works was to identify the presence of any archaeological remains which would be affected by intrusive aspects of the development. Any archaeological remains, including human remains, which significantly contribute towards an understanding of the development of the post-medieval church and use of adjacent space were recorded and retained for analysis.

## 2 PROJECT BACKGROUND

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- 2.1.1 Works were necessitated by the discovery of human remains by on-site contractors during machine excavation of the area adjacent to the boundary wall of the Church. Following a site visit, Scott Lomax, City Archaeologist for Nottingham City Council, requested that an additional c 30m<sup>2</sup> area adjacent to the discovery site be hand excavated to ascertain the potential for additional burials within the carpark.
- 2.1.2 Due to the nature of the emergency works, a Written Scheme of Investigation was deemed unnecessary. Instead, a short brief for archaeological mitigation requirements was supplied by the City Archaeologist for Nottingham City Council. All work was undertaken in accordance with ClfA guidelines (2014b), Historic England Guidelines (Mays 2018), and relevant government legislation (Burial Act 1850).

## 3 SITE TOPOGRAPHY AND GEOLOGY

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- 3.1.1 The site is situated within the rear carpark of 8 Pennine House, Stanford Street, which is bounded by Castle Gate to the north, St Nicholas Church and Maid Marian Way to the West, and by commercial and industrial development to the south. Nottingham Castle is situated c 250m to the west.
- 3.1.2 St Nicholas church and the surrounding area of the Nelson's Solicitors carpark sits within a thin band of superficial geology comprised of Head formation sand, silt and clay, which is defined as poorly stratified debris or clayey hillwash deposited 2.58Ma years ago during the Holocene Epoch.
- 3.1.3 Bedrock geology comprises Chester Formation Sandstone which forms part of a 200m wide outcrop of sandstone which is part of the Sherwood Formation that runs in a broad belt from Nottingham City to Yorkshire.
- 3.1.4 The carpark to the rear of St Nicholas church sits at an elevation of approximately 30m Above Ordnance Datum, within the flood plain of the River Trent.

## 4 HISTORICAL BACKGROUND

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- 4.1.1 The site lies within the former grounds of the church of St. Nicholas, which forms a parcel of land between Maid Marion Way, Castle Gate and Stanford Street. The medieval origins of the church are less well understood, though it is thought to date back to the pre-conquest period (Walker 1940), it is generally accepted that its foundation was soon after the Norman Conquest.
- 4.1.2 The first documentary evidence of a church on land at St Nicholas appears in the twelfth century, with the foundation of Lenton Priory (Stevenson 1918), though it is uncertain whether the current church sits within the same boundary. The earlier medieval church is likely to be contemporary with the nearby Church of St Peter, having built up as manorial chapels around the early medieval settlements of Earl Tostig and Edward the Confessor (Walker 1940). Earlier suggestions that the current church sits to the south of the medieval church appear unfounded (Walker 1940; Lomax 2013), where excavations undertaken in 1991 by Nottingham City Museum Field Archaeological Section revealed the probable earlier footprint of a cruciform medieval church along broadly the same alignment and position as the extant building (Lomax 2013).
- 4.1.3 The confirmation of the location of the prior structure is a likely indicator that the position and extent of the burial ground around the area of St. Nicholas church is unlikely to have altered to any significant degree, though little is known of the use and ownership of the adjacent parcel of land, as historic mapping appears to show the two areas as separate entities until at least the 1820's (Plate 4); however it is worth noting that the boundary of the site does not alter significantly since from least 1610, visible in Speed's map of Nottingham (Plate 1).
- 4.1.4 The origins of the adjacent parcel of land to which the lower burial ground was later utilised is harder to ascertain. The land, formerly bifurcated by Rosemary Lane (later known as St Nicholas Way, no longer extant), may have functioned as an earlier thoroughfare between Greyfriar Gate and Castle Gate, although its function is unknown.
- 4.1.5 By 1744, Badder & Peat's map of Nottingham (Plate 3) show that the area has been separated into several small parcels of land, primarily in use as an orchard, with small allotment plots evident to the south. The map provides the first evidence for land use within the site boundary, as the area is notably blank within earlier mapping.
- 4.1.6 Smith and Wild's 1820 'A New Plan of the Town of Nottingham' (Plate 4) provides the first evidence of use of the site as a burying ground, which the entire area of the current car park is ascribed to. Adjacent to the site, along Walnut Tree Lane, an additional small plot of land was ascribed to a Quaker burying ground, which may have later utilised areas of the St. Nicholas lower burial ground when the need arose. Later excavations across Maid Marion Way in the 1950's may have disturbed burials from both the Friends burial ground, and the norther area of the churchyard of St. Nicholas (Lomax 2013). The location of their reburial is unknown. Never the less, by 1853, the lower burial ground of St Nicholas is featured in *White's Directory of Nottinghamshire* as "...occupying a pleasant situation to the south side of Castlegate (now Maid Marian Way) whence its large burial ground extends to Chesterfield Street and Rosemary Lane".
- 4.1.7 Between 1851 and 1861 the site is no longer referred to as an official burial ground (Plate 7). The description of the site in the 1853 *Directory* suggests that the site fell out of use officially towards the latter part of this time frame, coinciding with the construction of Stanford Street to the north-east and the development of the lace factory which later housed the Nelson's Solicitors offices.

## 5 PURPOSE AND OBJECTIVES OF THE PROJECT

- 5.1.1 The archaeological mitigation works conducted by TPA was able to contribute to our understanding of the development and use of ancillary church grounds.
- 5.1.2 Whilst the works were not subject to a pre-determined research strategy through a Written Scheme of Investigation, they did provide an opportunity to address some specific research questions.
- Is it possible to determine when the lower burial ground was opened, and is it possible to identify any earlier (pre-burial ground) features within the limits of the excavation?
  - Is it possible to determine the presence of Quaker burials, such as overspill from the nearby "Friends Burying Ground" along Walnut Tree Lane?
  - What may the presence of additional burials within the excavation area reveal about the demography of Nottingham and the parishioners of St. Nicholas Church and Is it possible to determine the status of the individuals interred within the lower burial ground of St. Nicholas Church?
  - Can we identify the presence of structural fabrics relating to the earlier medieval church, or determine the presence or absence of fabrics relating to the construction of a possible "intermediary" church?
- 5.1.3 Key research questions were identified from *The East Midlands Historic Environment Research Framework* (Knight *et al* 2012).
- 5.1.4 The following research questions were identified as being of particular significance to this project:

<b>High Medieval (1066-1485)</b>
<i>7.5 Religion</i>
4. Can we shed further light on upon the distribution and development of early churches of chapels and the origins and growth of the parish system?
6. What may we deduce from scientific analysis of cemetery populations about changes in diet, mortality and other demographic variables, both within the region and between social groups?
<b>Modern (1750-present)</b>
<i>9.2 Cultural diversity and religion</i>
4. What may be deduced from cemetery studies about changing attitudes to burial and remembrance and evolving funerary architecture?

## 6 METHODOLOGY

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### 6.1 Archaeological Methodology

#### *General Conditions*

6.1.1 The archaeological excavation was undertaken in accordance with *standards* defined by Chartered Institute for Archaeologists (CIfA) guidelines for archaeological excavation (CIfA 2014), BABAO and CIfA *Updated Guidelines for the Standard of Recording Human Remains* (2017), Guidance for Best Practice (APABE 2017), and Historic England *Guidance on The Role of a Project Osteologist* (Mays 2018).

6.1.2 A burial license was sought immediately (license number: 19-0018). Excavation did not commence until the license was issued.

#### *Staffing*

6.1.3 The archaeological works were undertaken by suitably qualified members of TPA according to accepted archaeological practice and CIfA guidance (2014).

6.1.4 The fieldwork was managed by TPA Assistant Project Manager Tom Hooley.

#### *Fieldwork*

6.1.5 Vegetation debris was cleared by the on-site contractors and machine excavation commenced without archaeological supervision. Articulated human remains were identified at a depth of c 0.7m below ground level, after which work was stopped until archaeological mitigation could proceed. Fieldwork comprised the hand excavation of a c 30m<sup>2</sup> area of land to the rear of the carpark which was under heavy vegetation.

6.1.6 Excavation of the remaining 30m<sup>2</sup> was undertaken by hand in successive spits of 0.3m to allow to the identification of additional grave cuts, and for the excavation, recording and removal of any human remains. The attending archaeologists retained 100% of disarticulated human bone and artefactual material recovered during fieldwork for analysis.

6.1.7 The area was excavated to a maximum depth of 1.1m as defined by Health & Safety restrictions. Cuts for additional graves were identified in plan at this maximum depth but were not excavated.

6.1.8 All archaeological features were hand-cleaned and planned. Features were excavated to a degree sufficient to determine their plan and form, their nature, their degree of survival, and to recover any datable artefacts. All features thus investigated were recorded stratigraphically using a single-context system in plan and section, and all finds recovered were retained for analysis.

### 6.2 Detailed specification of archaeological recording

#### *Plans*

6.2.1 Plans of all contexts were drawn on drafting film in pencil at 1:20 or 1:50 showing as a minimum standard:

- context numbers
- all colour and textural changes
- principal slopes represented as hachures
- levels expressed as ordnance datum (O.D.) values, or levelled to permanent features if benchmark was absent



- sufficient details to locate the subject on a 1:500 plot of the area of groundworks and OS 1:2,500 map (i.e. the national grid)

#### *Sections*

- 6.2.2 The sections show the same information as stated above, but levelling information was given in the form of a datum line with O.D. value; the locations of all sections are shown on the plans.

#### *Photographs*

- 6.2.3 Digital images of each context were taken together with general views illustrating the principal features of the excavations. These were supplemented by black and white images of key features and deposits.

#### *Written Records*

- 6.2.4 The written records were maintained as detailed in the approved TPA recording manual.

#### *Site Survey*

- 6.2.5 All features and deposits of archaeological significance were recorded three dimensionally using a GPS, Leica CS15/GS15 RTK Differential GNSS.

## 7 RESULTS

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- 7.1 Excavation of the area within the lower burial ground revealed a stratigraphic sequence typical of a city churchyard, although the area had experienced high levels of development related truncation. It is unclear whether the ground level of the formerly grassed verge associated with the car park has altered to any great degree, however the presence of burials below the maximum safe working depth suggest that the ground had not been built up to a comparable level with the adjacent churchyard.
- 7.2 The burial ground first appears on historic maps around c 1820, with the Smith and Wild map of Nottingham. The burial ground appears to have been in use for some time by this stage, having spread to the south and east prior to the construction of Stanford Street. This appears to have superseded the use of the area as an orchard and allotment ground, visible on Badder and Peat's map of Nottingham c 1744. Historic map regression suggests that this burial ground was in use for less than 100 years.
- 7.3 The excavation of the area adjacent to the church boundary extended to a maximum depth of c 1.1m below ground level (b.g.l), and did not impact geological natural. Additional grave cuts were identified at this depth but were not investigated due to health and safety constraints. The earliest identified deposits within the site comprise burial horizon deposits (105) and (106), the depth of which was not ascertained. Approximately 8 grave cuts were identified within these deposits, 7 of which were excavated (discussed below, section 8).

### *Burial Horizon (105/6) (Figs 1, 5 Dr#01 Plates 9-10)*

- 7.4 Deposit (105/6) was identified at a depth of 0.2-0.3m b.g.l, and comprised a firm mid-dark orangish brown sandy silt and clay, which yielded a small assemblage of pottery, clay pipe, glass and animal bone. Both (105) and (106) represent the same deposit, which formed as a result of continual churning of the burial environment. The depth of the deposit indicate that material may have been brought in from elsewhere to build up the ground level and facilitate further burials, whereas the presence of disarticulated burials, in the form of loose iron coffin grips, iron nails with fragments of coffin wood and disarticulated human remains further suggest a relatively high turnover of burials. The total depth of the deposit exceeded the maximum safe working depth of c 1.1m and the depth of the burial ground could not be ascertained at this stage.
- 7.5 The deposit held the remains of at least 8 articulated individuals. 7 of these were investigated and exhumed. The remaining grave cut (111) was identified at a depth of c 1.2m b.g.l, at which point it was recorded and retained *in-situ*.

### *Grave [109] (Figs 3-4a; Plate 17)*

- 7.6 A partial, sub-oval grave cut was identified at a depth of c 1.1m b.g.l within the northern area of the site, measuring c 0.6m in length and 0.5m in width. The grave had been truncated by machining associated with the current development, and comprised the partial skull, upper limbs and thorax skeletal remains (SK02) within a shallow c 0.3m deep grave cut. A poorly made, encrusted iron coffin grip was identified adjacent to the right humerus. The presence suggests that the individual was inhumed within a coffin, likely to be of poorer, or lower status quality.
- 7.7 Grave [109] had been infilled by a deposit of dark brownish grey sandy silt (110) which contained frequent charcoal flecks, CBM. An intrusive partial neonatal femur was identified left of the skull, alongside fragments of CBM, glass and a c 17th century pipe stem. An analysis of the skeletal remains can be found in section 8.6.

*Grave Plot [107] (Figs 3-4a; Plates 18-19 & 21)*

- 7.8 Grave plot [107] was identified c 0.3m to the south of grave [109], and comprised a large 1.8m x 0.5m sub-rectangular cut, which contained the inhumed remains of SK01 and SK06, and may represent a familial burial plot. The grave cut was vertical sided, and was excavated to a depth of 0.3m, however the true depth of the plot remains uncertain. The remains of an elderly woman, SK06 (described below in section 8.10), were identified at the base of the exposed cut at a depth of c 1.1m b.g.l. These remains were associated with fragments of coffin furniture in the form of iron coffin grips, nails and a fragment of pressed coffin plate with a surviving 'celestial crown' motif, which was identified *in-situ* over the thorax of the individual.
- 7.9 Above SK06 and within the same grave plot, were the remains of a well-preserved middle aged man, SK01, which was identified at c 0.7m b.g.l (discussed below in section 8.5). The burial was associated with 6 coffin grips (corresponding to the funerary presence of 6 pall bearers), fragments of clay pipe dating between the 17th and 19th century, intrusive animal bone, and disarticulated human remains. Both individuals appear to have been placed within a well-defined grave cut, with coffin furniture suggestive of a 19th century date.

*Grave cut [114] (Figs 3-4a; Plate 20)*

- 7.10 Located to the north-west of grave plot [107], at a height of 0.68m b.g.l (equivalent to 27.47m AoD), a shallow, sub-rectangular grave cut was identified extending into an area truncated by concrete underpinning (measuring c 1.7m x 0.5m x 0.3m). The feature represented a single coffined inhumation which contained the remains of a young juvenile, labelled SK07. The grave appears to have been truncated in antiquity to facilitate the excavation of burial plot [107]. The similarities in identified coffin furniture suggest that the remains held within grave [114] belong to a broadly contemporary date range, however, above ground grave markers may not have been maintained. No additional burials were identified beneath the area of [114], which suggests that the placement of burials began to move away from the boundary wall of the church relatively early on in the use of the burial ground.

*Grave cut [112] (Figs 2-2a, 5 Dr#1; Plates 14-15)*

- 7.11 A shallow, rectangular grave cut was identified in plan c 0.5m north-east of [114], at a similar height of 0.60m b.g.l (equivalent to 27.65m AoD). The feature measured c 1.8m x 0.5m, and was excavated to a depth of c 0.25m. The grave cut contained the inhumed remains of a single, adult female, labelled SK03 (discussed below in section 8.7), which had been truncated by both the concrete underpinning of the church wall, and by machine excavation associated with the current development. Fragments of a poorly preserved and encrusted metal coffin plate were identified across the lower abdomen, but were not otherwise diagnostic. Heavy root damage had affected the remains

*Possible Buried Soil Horizon (104) (Fig 5, Dr#1; Plate 10)*

- 7.12 A shallow c 0.1m thick deposit of charcoal rich friable dark blackish grey clayey silty sand was identified to the south of the site, within an area previously truncated by landscaping. The deposit has been interpreted as a possible buried soil horizon. The presence of large fragments of ceramic drain pipe suggests that the southern area of the site was utilised for sewage and water drainage in the 18th and 19th century.

*Modern landscaping deposits (103), (102), & (101) (Fig 5, Dr#1; Plate 10)*

- 7.13 The south of the site was sealed by deposits relating to modern landscaping, which created a gradual incline along the grassed verge of the carpark. A c 0.4m thick deposit of redeposited firm reddish orange clay (103) was sealed by a deposit of modern white-yellow gravel hardcore (102) c 0.04-0.2m thick, and topsoil, formed of dark greyish black silty sandy clay.

## 8 THE HUMAN REMAINS *by Victoria Owen*

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### 8.1 Introduction

8.1.1 Excavations on land at the lower burial ground of St. Nicholas Church, Nottingham, revealed the articulated remains of at least 7 individuals and approximately 790 fragments of disarticulated bone. All articulated burials revealed evidence for truncation, either through deposition of later burials, or through modern development related truncation. Osteological analysis was undertaken on the grounds of determining, where possible:

- Condition of bone present;
- Completeness of the skeleton;
- Inventory of the skeletal material;
- Sex determination;
- Age estimation;
- Presence or absence of non-metric or genetic traits;
- Stature estimation;
- Presence or absence of skeletal pathology, and;
- Presence or absence of dental pathology.

8.1.2 Inventories of skeletal material can be found in Appendix 2 & 3.

### 8.2 Overview

#### *Representativeness*

8.2.1 It is unclear exactly how many burials the lower ground of the cemetery would have held. The burial ground appears in historic mapping from approximately 1820, while later maps suggest that the site had fallen out of use by 1861, to facilitate the construction of Stanford Street to the east, and the lace factories of which the road is known for.

8.2.2 The grounds of the church of St. Nicholas functioned as one of 23 cemeteries within Nottingham City. Parish registers (birth, marriage and death) date back to the 1560's, which are now held within the Nottinghamshire archives. Of the 7 articulated burials excavated within the boundary of the site, 3 contained the remains of juvenile skeletons, whilst the remaining 4 constituted adults (2 male & 2 female), ranging in age between 30-60+.

8.2.3 Not all the interments made within the excavated portion of the overspill burial ground have been recovered. The high frequency of disarticulated material (>790 fragments) suggests a high turnover of land within the burial ground. It seems likely that burials numbering in the tens or possibly hundreds have been disturbed by the contemporary excavation of fresh graves during the use of the burial ground and later development. Previous landscaping events and service installations dating to the 1980's may also have contributed to the high number of fragmented remains. The present sample reflects an incomplete representation of the interments, which may result in a mortality profile bias.

#### *Preservation*

8.2.4 The condition of skeletal material was assessed macroscopically and recorded according to guidelines set out by BABAO and Mitchell and Brickley (2017). In this instance, "grades" of preservation were simplified into Good (grades 0-2), Moderate (3-4) and Poor (4-5). Where soil acidity, drainage, or burial type affected preservation (recorded post-depositional or taphonomic change), these were also recorded.

8.2.5 All articulated remains encountered at least some degree of truncation. On average the least well preserved remains belonged to sub-adult skeletons. All juvenile skeletons were found to

be less than 35% complete, with the lowest percentage recorded as <10%. Two adult skeletons were recorded as 35-45% complete, and the remaining 2 were between 70-75% complete.

- 8.2.6 Those skeletons which were buried within upper levels of burial horizons (105) and (106) encountered noticeably higher degrees of truncation than others located at a depth below c 0.7-8m. At least 2 burials were truncated by concrete underpinning to the east of the church boundary wall, while the remaining inhumations appear to have been truncated by machining associated with the ongoing development.

### 8.3 Methodology

#### *Age estimation*

- 8.3.1 Where possible, all remains were assessed for age, sex and stature using methods recommended by Buikstra and Ubelaker (1994) & Mitchell and Brickley (2017). Age determination of subadults was estimated using epiphyseal fusion (Scheuer and Black 2000), dental development (Brothwell 1963; Moorrees et al 1963; AlQahtani 2009) and post cranial measurements (Schaefer et al 2009). Adult age estimation was based on epiphyseal fusion, dental development and attrition, morphology of the auricular surface (Miendl and Lovejoy 1989) and pubic symphysis (Suchey-Brooks 1990) (Buikstra and Ubelaker 1994; Brothwell 1963). Cranial suture closure (Meindl and Lovejoy 1985) and degenerative joint disease of the spine (Snodgrass 2004) were recorded but not used to refine age estimation further. Composite methods were used preferentially where possible, and an age range was produced. 4 burials were found to represent adult individuals, whilst the estimation of the remaining 3 Juvenile inhumations produced an age range between 4-8 years.

#### *Sex estimation*

- 8.3.2 All adult skeletons were assessed visually for sexually dimorphic traits on the basis of morphology of the skull and os coxae (pelvis). These were supplemented where possible by metric data (Buikstra and Ubelaker 1994). Sex determination of subadult individuals was not attempted, as secondary sex characteristics associated with skeletal morphology do not manifest until puberty. Of the remains suitable for sex estimation, 2 were found to be morphologically female, and 2 morphologically male.

#### *Metric data*

- 8.3.3 Stature of articulated adult remains were estimated using formulae set out by Trotter (1970). Of the 4 adults identified within the assemblage, only 2 of the articulated remains could be assessed for stature, a single male (178.5cm) and a single female (165.5cm).
- 8.3.4 Comparative skeletal indices were calculated (cranial, femoral (playmeric), tibial (playcnemic) following Buikstra and Ubelaker (1994) and Brothwell (1963). Only 2 adult specimens were suitable for calculation of skeletal indices. Additional post-cranial metric data are held within the archive.

#### *Pathology and non-metric traits*

- 8.3.5 The presence or absence of non-metric traits, and description pathological change was recorded using methods recommended by Buikstra and Ubelaker (1994). General disease classifications follow Waldron (2009), Brothwell (1963) and Ortner (1981). These were supported where possible by clinical data or published cases. The Museum of London Centre for Human Bioarchaeology was consulted for photographic references.

## 8.4 Summary of Remains

### 8.5 SK01

- 8.5.1 SK01 represents the remains of a well preserved (~75%) adult male approximately 45+ years of age (though possibly older) at death. Individual element preservation was good, though the long bones of the left side had been entirely removed. Three iron coffin grips were identified in-situ around the area of the lower right limb and upper right shoulder. Stature was estimated at 178.5cm (equivalent to 5' 10") based on measurement of the right femur and humerus. Pathology is discussed by type below.

#### *Dental Pathology*

- 8.5.2 Almost all maxillary and mandibular molars had been lost ante-mortem, bar the lower right 1st molar. Alveolar remodelling in the areas of teeth lost ante-mortem was complete, suggesting that they were lost more than 6 months prior to death. Dental alveoli (tooth sockets) for both lower first incisors and the lower right 4th premolar appear to be early in the process of remodelling. The teeth were not identified as loose elements, suggesting that the loss likely occurred in the months immediately preceding death.
- 8.5.3 Dental attrition was so severe that the crown surface of all teeth were almost completely destroyed. For the upper 1st incisors, this attrition was so severe that tooth wear was angled almost to the line of the CEJ. For the upper left incisor, this had resulted in a carious lesion on the lingual side which had exposed the pulp chamber. The severity of attrition in this case is almost certainly due to the loss of the molars in the maxillary and mandibular arcade, resulting in the use of remaining incisors, canines and premolars for chewing and grinding.
- 8.5.4 Carious lesions were identified on all remaining teeth, with one gross carious lesion affecting the buccal surface of the remaining lower 1st molar. Approximal pigment and crown surface lesions were seen on upper and lower canines and premolars, with all remaining teeth showing pigment and cementum destruction along the CEJ. Alveolar recession, (normally associated with periostitis or periodontal disease resulting in inflammation of the gingival tissue) was marked along the remaining mandibular arcade, with approximately 6.3mm root exposure from the alveolar bone, more than the 2mm noted for healthy adults. Discolouration and mild calculus was identified along the line of the exposed root for all remaining teeth.
- 8.5.5 Enamel hypoplasia was noted on 4 of the mandibular teeth and 1 remaining maxillary tooth (namely the canines and premolars), which showed 2 or more groove or line defects per tooth. The condition is one primarily of malnutrition or prolonged childhood illness, which occurs whilst the permanent dentition is still forming within the dental crypts. It is the result of a deficiency in enamel thickness due to the arrested secretion of the enamel matrix (Hillson 1996). Visually they may appear as horizontal or vertical lines or grooves, or pitting along the enamel surface.

#### *Joint Disease*

- 8.5.6 Arthritis of the cervical spine (affecting C3-C7) was identified. It is a condition which generally accumulates as a function of age, lifestyle and severity of long-term musculo-skeletal stress (Waldron 2009; Quispe & Williams 2019). In the case of SK01, the condition was associated with severe osteophytic marginal lipping, pitting on the superior bodies surface, and curved osteophytic spicule formation. The condition was associated with cervical spine intervertebral disc disease (IVD), which was present in the form of pitting (both pinpoint and coalesced porosity) on the superior and inferior body surfaces. Both conditions are common comorbid, and rarely occur below the age of 40.
- 8.5.7 Schmorl's nodes were present on the superior and inferior body surfaces of both the thoracic and lumbar vertebrae (affecting T7-L5 entirely). These nodes are usually the result of herniation of the intervertebral disc. Caused by mechanical stresses to the lower spine, however there is no clear aetiology (Waldron 2009).



- 8.5.8 Examination of the right pectoral girdle, formed of the scapula, clavicle and humerus, revealed a mild case of rotator cuff disease in the form of pitting on the insertion point of rotator cuff muscles of the humerus. Small osteophytic bone around the insertion point was also noted. The condition is caused both by soft tissue injury and repetitive over-use and is often associated with shoulder pain.



Figure 1: IVD of the cervical vertebrae involving C3-C7.

### *Trauma*

- 8.5.9 Two well healed transverse fractures were identified around the area of the lateral curvature of two mid-thorax ribs on the right side. These are generally the result of antero-posterior compression and may be related to occupational trauma, however it is also possible that a mild-moderate degree of lateral scoliosis (discussed below) present in the thoracic spine gave rise to these injuries (Brickley 2006).

### *Neuromechanical Deformity*

- 8.5.10 When articulated, the area of the thoracic spine had a moderate lateral deviation from the mid-sagittal plane (scoliosis) which had resulted in the narrowing of the spinal canal and torsion of the spinous process between T3-T9, which was rotated towards the concave side. Vertebral bodies within the mid thoracic region (T4-7) show wedge shape malformations and gaping deformities associated with the compression or bulging of intervertebral discs. This is concurrent with Schmorl's nodes present on the superior and inferior body surfaces discussed above.
- 8.5.11 It is possible that this condition also resulted in the observed osteophytic bone formation and porosity in the costo-vertebral facets, and given rise to degenerative joint disease (Salter 1999).
- 8.5.12 There are several causes of scoliosis, though more than 80% of cases are thought to be idiopathic (Waldron 2009).



Figure 3: Showing the ossification of the supraspinous ligament and associated torsion/curvature of the thoracic spine as a result of scoliosis. Scale 0.3m

#### *Miscellaneous Bone Forming*

- 8.5.13 Ossification of the supraspinous ligament was noted in the thoracic spine between T5-T9, and may be a response to the abnormal pull of the ligament due to the lateral deviation of the spine (scoliosis) towards the concave side.
- 8.5.14 Ossification of the ligamentum flavum was marked in areas of the thoracic and lumbar spine and is primarily a condition of age and activity, though the true aetiology is unclear (Geber and Hammer 2018).
- 8.5.15 Complete ossification of thyroid cartilage and costo-vertebral cartilage of the first rib was identified. There is no true pathological reason for this ossification, and it can occur naturally with age (Raghavendra and Nirmala 2014). When ossification is age related, it generally occurs after the third decade, and is marginally more common in males than in females.



Figure 2: Ossification of the thyroid cartilage (upper left) scale: 0.05m; and ossification of the costo-vertebral cartilage of the first rib (upper right).



*Activity Markers*

- 8.5.16 Muscle attachments of the femur, notably along the linear aspera, were present and fairly rugose, indicating heavy muscle use.

*Other*

- 8.5.17 The skeleton had a bifid xiphoid process. These are located posteriorly on the sternum and their variability is genetic. They can be useful in identifying relatives, but hold no other clinical significance.

**8.6 SK02**

- 8.6.1 SK02 comprised the partial remains of an adult male c 25-30% complete. The burial was associated with a clay pipe stem, glass fragments and at least 1 iron coffin grip, identified adjacent to the right shoulder. The latter half of the burial, comprising the pelvis and legs, had been completely removed by machine during ongoing works. Sex estimation proved problematic due to preservation, and was conducted using the morphology of the nuchal crest and measurements of the clavicle and distal humeral epiphysis. Age estimation was conducted on the basis of epiphyseal fusion and the presence of degenerative joint disease, which rarely appears in individuals under 40 years of age.

*Joint Disease*

- 8.6.2 Extra spinal degenerative joint disease, or spondyloarthropathy, was noted on the following joint surfaces: Acromio-clavicular (bilateral), sterno-clavicular (bilateral), and right gleno-humeral joints. These were noted alongside spinal degenerative changes involving marginal osteophytic bone growth around the body margins, alongside pitting and marginal osteophytic bone growth of the vertebral, and costo-transverse facets. One right rib head also displayed eburnation on the articular facet.



Figure 4: Extra spinal degenerative joint disease, present on the articular surfaces of the clavicle, scapula and costo-vertebral facets. Scale 0.1m

### *Metabolic*

- 8.6.3 Pinpoint porosity (also known as ectocranial porosis) was present across the ectocranial surface of the parietal bones. The presence of porosity on the cranial vault can be metabolic or infectious in origin, however it is also noted as a common variance in middle-older aged adults.

### *Soft Tissue Trauma*

- 8.6.4 A circular periosteal callous measuring c 3mm in diameter was present on the posterior surface of the distal humerus, above the coracoid fossa. The lesion may represent a healed or healing hematoma caused by soft tissue trauma. The presence of disorganised, or woven periosteal bone suggests that an infection may have taken hold.



Figure 5: Small ossified haematoma present on the distal humerus, posterior and medial views. Scale 0.1m

#### *Miscellaneous Bone Forming*

- 8.6.5 Marked ossification of the ligamentum flavum was identified along the spinous process of all remaining thoracic vertebrae. The aetiology is unclear, but it is primarily associated with increased age. Ossification of this ligament often occurs comorbidly with spinal arthropathy and usually commences in the lumbar vertebrae.

#### *Other*

- 8.6.6 An area of copper alloy staining was present on the ectocranial surface of the parietal bones which preserved a small area of mummified hair and soft tissue.
- 8.6.7 A septal aperture was present on the left humerus.



Figure 6: Small area of copper alloy staining showing areas of mummified soft tissue and hair. Scale 0.1m

## 8.7 SK03

8.7.1 SK03 represented the partially preserved remains of an adult female aged 30-39. The remains were poorly preserved and completeness ranged between 35-45% due to the level of fragmentation. The head and shoulders had been completely removed by concrete underpinning adjacent to the boundary wall. The lower legs and feet were removed by machining associated with the current scope of development. Sex assessment was conducted using the morphology of the os coxae and femoral head diameter. Age estimation was conducted using the morphology of the auricular surface of the os coxae, which suggested an age range of 30-39 years. No other skeletal age estimators could be assessed.

### *Activity Markers*

8.7.2 Muscle attachment points were generally gracile where present, indicating limited strenuous physical activity.

### *Pseudopathology*

8.7.3 An area of ferrous concretion was identified on the anterior body surfaces of the thoracic vertebrae, which corresponded to a layer of degraded iron (possibly the remains of a coffin plate) located over the pelvis and lower thorax.

### *Other*

8.7.4 A small circle of green copper alloy staining was present on the anterior surface of the left ilium, caused by small copper alloy objects, in this instance staining is likely the result of clothes fastenings or shroud pins which have corroded adjacent to the body.

## 8.8 SK04

8.8.1 SK04 was the least well preserved of all the articulated remains recovered from the site. The individual is represented by <10% skeletal material and is limited only to the thoracic spine, vertebra, mandible and partial right proximal ulna. SK04 was 6.5-7.5 years of age at the time of death. Age estimation was achieved through dental development and vertebral fusion.

### *Dental Pathology*

8.8.2 A gross carious lesion was identified on the interproximal crown surface of the lower left deciduous 4th premolar. This had caused some additional pigment lesions to appear on the corresponding crown surface of the deciduous 3rd premolar.

8.8.3 Two permanent lower first incisors presented with hypoplastic defects in the form of linear grooves.

### *Infectious Disease*

8.8.4 Periosteal new bone was present on the pleural surface of 4 unisided rib fragments. There are several possible causes for periosteal new bone in this area, not limited to: Chest infections, pneumonia, pleurisy or mechanical irritation caused by chronic coughing (Waldron 2009; Ortner 1981). The presence of such can be indicative of tuberculosis, however as no other tuberculous skeletal markers are present this could not be ascertained. The lack of other extrinsic features relating to a specific form of infection meant that no further refinement of diagnosis could be made.



Figure 7: Periosteal new bone on the pleural surface of unsided rib fragments. Scale 0.05m

## 8.9 SK05

- 8.9.1 SK05 falls within the category of least well preserved remains, of which only 10% could be recovered. The recovered burial comprised the remains of both tibia, fibula and left talus. The remainder of the burial had been largely removed by the presence of concrete underpinning. Age at death estimation was ascertained on the basis of long bone measurements of the tibia and fibula, which produced an age range of 6-7 years.

### *Infectious Disease*

- 8.9.2 Both tibia and fibula presented with bilateral marked periosteal new bone on the diaphysis. The lesions are broadly symmetrical between the tibia, which appear appositionally on the articulating fibula. The bone surface is largely smooth except for small raised plaques of woven bone towards the proximal and distal metaphysis, although the lesions appear slightly more marked on the right lateral surface. The original cortex of both tibiae have been partially remodelled, giving the appearance of slight midshaft thickening, although this does not appear to be the result of an involcrum, such as would be seen in a case of osteomyelitis. Non-specific or systemic infection, Hypertrophic pulmonary osteoarthropathy (HPO), Hypervitaminosis A and some congenital conditions are some of the possible differential diagnoses for this, however a lack of additional skeletal material make this impossible to determine.



Figure 8: Marked periosteal new bone present on the surface of both tibia and fibula. Scale 0.2m

## 8.10 SK06

8.10.1 SK06 represent the remains of an adult female approximately 50-60+ years of age based on auricular surface morphology. This skeleton represented by far the most well preserved remains within the site, and was approximately 75% complete. Dry bone measurements of the femur and humerus suggest an approximate stature of 165.5cm (equivalent to 5' 5").

### *Dental Pathology*

8.10.2 All teeth had been lost ante-mortem, and alveolar remodelling was complete.

### *Joint Disease*

8.10.3 Spinal degenerative joint disease was identified on the thoracic and lumbar vertebrae in the form of marginal osteophytic bone growth and pitting of the superior body surface. Marginal osteophytes and pitting were also recorded on the costo-transverse articular facets of the thoracic, lumbar, and 1st sacral segment.

8.10.4 Extra spinal joint disease manifested in the presence of bilateral osteoarthritis of the hip and knee. Marginal osteophytes, macroporosity/ pitting on the joint surface of both femoral head and acetabulum had resulted in the appearance of mushroom head deformity which has altered the contour of the acetabula which appeared slightly widened.

8.10.5 Similar bilateral marginal osteophytic bone growth and pitting of the patello-femoral joint surface was evident on the articular surface of both patellae. The tibia appears unaffected by arthroses, although enthesophytes were present along the tibial tuberosity.



Figure 9: Representative bone growth consistent with extra spinal degenerative joint disease of the hip and knee. Scale 0.3m & 0.05m respectively.

### *Trauma*

8.10.5 At least 10 ribs displayed evidence of small bone masses associated with well healed or healing rib fractures. The number of fractures present along the rib shaft of the mid-thoracic region indicate prolonged compression of the thoracic cage. These lesions may be the result of increased pressure to the thoracic cage from a pronounced thoracic scoliosis (discussed below), or deformation through corsetry, though it is perhaps more likely to reflect a mixture of the two. As the fractures were largely present in the area of the lateral curvature of the ribs, it



may be possible to assume that tight corsetry was used to mitigate the appearance of the scoliotic curvature.



Figure 10: Representative rib shaft fragments displaying small bony masses associated with healed or healing rib fractures. Scale 0.2m.

#### *Neuromechanical Deformity (Scoliosis)*

8.10.6 A slight lateral deviation was identified in the mid to lower thoracic region of the vertebrae, consistent with a diagnosis of scoliosis. The vertebral bodies curve outward to the left, and the spinous and transverse processes angle slightly to the concave right side. This caused some overlapping of spinous processes in the mid-thoracic region which caused the superior surface to appear slightly angled and flattened. Associated osteophytic changes were noted on the corresponding costo-transverse joints of the rib heads. Two rib heads on the side of the inward curvature also showed evidence of posterior angulation, which is the result of biomechanical adaption.

#### *Infectious Disease*

8.10.7 Periosteal new bone (PNB) was present on the anterior and lateral diaphysis of both tibia, also affecting the appositional medial aspect of the left fibula. The reactive bone did not affect the underlying cortex, which suggests that the individual may have suffered low grade periosteal inflammation as a result of repetitive soft tissue trauma, however true aetiology cannot be discerned.



Figure 11: Marked periosteal new bone on the anterior and lateral diaphysis of the tibia (upper left) and fibula (upper right). Scale 0.2m.

#### *Miscellaneous Bone Forming*

- 8.10.8 Ossification of the ligamentum flavum was identified on the lumbar and lower thoracic vertebrae. This may be a result of increased ligamentous torsion from the lateral deviation of the spine, however it can also be a normal consequence of age.
- 8.10.9 Ossification of the costo-vertebral cartilage was identified on both the left and right first ribs, and is thought to be a consequence of advanced age.

#### *Other*

- 8.10.10 The skeleton had a bifid xiphoid process. These are located posteriorly on the sternum and their variability is genetic. They can be useful in identifying relatives, but hold no other clinical significance. Due to the skeletal proximity of SK06 and SK01, and similarities in skeletal profile, it is possible that the two represent close genetic relatives.
- 8.10.11 A probable case of transverse apophysomegaly, or fused cervical rib, was identified on the right transverse process of the 7th cervical vertebrae. Cervical ribs present in approximately 1 in 200 people and are a relatively common non-metric trait (Brewin et al 2009; Waldron 2009). In the case of SK06, this manifested as a bony outgrowth whereby a cervical rib had fused to the right transverse process. Ligamentous attachment sites were marked along the superior surface of the right first rib, indicating that the additional cervical rib was connected to the first rib by a fibrous band, the presence of which can sometimes result in compression of the neurovascular structures (in particular the subclavian artery), a consequence of which is Thoracic Outlet Syndrome. The presence of this bony outgrowth, and assumed biomechanical adaptations in gait, posture and limb use may have resulted in the observed arthritic changes to the acromioclavicular, sterno-clavicular and gleno-humeral joint surfaces in the right pectoral girdle, which all displayed evidence of osteophytic bone growth and pitting along the articular surface.





Figure 12: A possible case of apophysomegaly, on the left transverse process of C7. Scale 0.05m.

## 8.11 SK07

8.11.1 SK07 represented the partial remains of a juvenile aged 6-8 years at time of death based on dry bone measurements of the femur and ulna, however femoral measurements suggest a developmental age closer to 8 years. The burial had been truncated by concrete underpinning, which had removed the head and shoulders entirely. Both humeri and most of the thoracic cage had been removed by probable later burial truncation and heavy root disturbance, and is thought to be between 30-35% complete. The burial was associated with 2 degraded iron coffin grips, located adjacent to the right tibia and left femur.

### *Infectious Disease*

8.11.2 A small plaque of periosteal new bone was identified on the popliteal surface of the left femur, and is most likely the result of a soft tissue trauma.

## 8.12 Summary of Disarticulated Remains

8.12.1 A total of 790 disarticulated fragments of human bone were recovered from the site. Of these, 621 were found to be suitable for calculating a minimum number of individuals (MNI) present within the mortuary sample. Of 621 identifiable fragments, 489 were identifiable as adult, 84 were identifiable as juvenile remains over the age of 2.5 years, and 88 were identified as being under 2 years of age. Where preservation allowed, adult remains were assessed for sexually dimorphic traits. This revealed 10 male or probable male, and 14 female or probable female isolated elements.

8.12.2 Calculation of a minimum number of individuals allows for a better understanding of palaeodemography and the wider context of the site (important as this could otherwise be obscured by the continual turnover of medieval and post-medieval burial grounds, however it often vastly underestimates the true depositional rate). In the case of St. Nicholas church, fragments suitable for MNI calculation were grouped by type, completeness and landmark visibility. The most common of these elements was then used to calculate the MNI. Use of the right femora produced an MNI of at least 26 individuals.

- 8.12.3 Age estimations of adult specimens were undertaken in cases where the auricular surface or pubic symphysis of the pelvis could be reasonably assessed, or in cases where dentition had survived. Estimated age ranges are held within Appendix 2&3.
- 8.12.4 Pathological lesions were noted on 73 fragments of bone. In cases where diagnoses could be made, these followed operational definitions set out by Waldron (2009), and disease classifications following Ornter (1981). In cases where pathological lesions could not be attributed to specific diagnostic criteria the lesions types were described and broadly classified (i.e: lytic, proliferative, arthritic, infectious, etc.) but no additional attempt to establish cause was made.
- 8.12.5 On average, the most common pathological lesion noted within the disarticulated material were the presence of osteophytic new bone around joint or body margins typically associated with degenerative joint disease. Three cases of spinal osteoarthritis were documented by the presence of eburnation visible on the articular facets of lumbar and sacral segments. The presence of periosteal new bone was commonly seen on anterior surfaces of femoral and tibial fragments which were cautiously attributed to soft tissue traumas.
- 8.12.6 Three joining fragments of tibia presented with periosteal new bone formation on the anterior and lateral surface, which took on the appearance of bowing associated with sabre tibia. The long axis of the bone was unchanged and the medullary cavity was unaffected which suggests a possible case of tertiary syphilis, however possible differential diagnoses include Paget's disease of bone and healing osteomyelitis.
- 8.12.7 One case of femoral osteomyelitis was recorded in an adult specimen, and one possible case of Garre's sclerosing osteomyelitis was identified on a juvenile humeral diaphysis.
- 8.12.8 Sharp force trauma was identified on the distal head of a proximal first foot phalanx. A transverse cut angled inferiorly had removed the distal head of the phalanx entirely, and heterotopic ossification was evident. The remodelled distal end appeared flattened, with a small plaque of bone extending proximally that suggests the individual continued walking long after the injury.
- 8.12.9 All other descriptions of pathological lesions identified within the assemblage can be found in Appendix 2&3.

## 9 FINDS OVERVIEW

Material	Description	Quantity	Weight
Post-medieval pottery	Body sherds	55	781g
Clay tobacco pipe	Stem fragments, 2mm bore diameter	18	52g
Glass	Fragments	19	119g
CBM	Fragments	39	1796g

## 10 THE POTTERY by Paul Blinkhorn

9.1 The pottery assemblage comprised 55 sherds with a total weight of 781g. It was all Saxo-Norman or later but was all deposited in contexts of the 18<sup>th</sup> century or later. The pottery occurrence by number and weight of sherds per context by fabric type is shown in Table 1. Each date should be regarded as a *terminus post quem*.

9.2 The medieval pottery was recorded using the conventions suggested by Nailor and Young (2001) as follows

**NOTLGW:** **Late Nottingham Glazed Ware**, late 14<sup>th</sup> – 15<sup>th</sup> century. 2 sherds, 32g.

**NOTGL:** **Nottingham Light-Bodied Glazed Ware**, E/M 13<sup>th</sup> – E/M 14<sup>th</sup> century. 2 sherds, 18g.

**ST:** **Stamford Ware**, 11<sup>th</sup> – 12<sup>th</sup> century. 1 sherd, 3g.

9.3 The late- and post-medieval material was recorded using the conventions of the Museum of London Type-Series, as recommended by Nailor and Young (2001) follows:

**CREA:** **Creamware**, 1740-1830. 9 sherds, 36g.

**MPUR:** **Midland Purple Ware**, 1450 – 1750. 7 sherds, 112g.

**MY:** **Midland Yellow Ware**, 1550-1725. 8 sherds, 161g.

**NOTS:** **Nottingham Stoneware**, 1700-1900. 6 sherds, 111g.

**PMBL:** **Post-medieval Black-glazed Redware**, 1600 – 1900. 8 sherds, 239g.

**STMO:** **Staffordshire-type Mottled Ware**, 1680-1800. 3 sherds, 15g.

**STSL:** **Staffordshire Slipware**, 1650 – 1800. 3 sherds, 23g.

**TGW:** **English Tin-Glazed Ware**, 1600-1800. 1 sherd, 2g.

**TPW:**           **Transfer-printed Whiteware**, 1830-1900. 4 sherds, 27g.

**YELL:**           **Yellow Ware**, 1840-1900. 1 sherd, 2g.

- 9.4     The range of fabric types is fairly typical of sites in the region. It suggests that there was activity at the site from around the time of the Norman Conquest onwards, but the fact that all the pottery occurred in modern contexts suggests very strongly that the earlier strata were heavily disturbed by fairly recent activity. All of the pottery was either residual or the product of secondary deposition, with the mean sherd size fairly low and very few refitting sherds noted.



Figure 1: Staffordshire slipware, 1650-1800



Figure 2: Midland Yellow Ware, 1550-1725



Figure 3: Nottingham Light-Bodied Glazed Ware, 13<sup>th</sup> – 14<sup>th</sup> century



Figure 4: Late Nottingham Glazed Ware, late 14<sup>th</sup> – 15<sup>th</sup> century

## 11 THE CERAMIC BUILDING MATERIAL *by Dr Phil Mills*

### Introduction

- 11.1 There were 39 fragments weighing 1796g presented for study. This included 16 fragments (142g) of mortar and 23 fragments of post-medieval ceramic building material (CBM).
- 11.2 The material was recorded by context using a fabric type series already used for Nottingham sites. Metrics recorded were number of fragments, No, weight in grams. Complete dimensions of length and width were recorded in mm, with thickness only recorded when other dimensions were complete.

### The Catalogue

Table 1 The Catalogue of material

Context	Sample	Fabric	Function	NoSh	Wt	corner	Length	Width	Thicknes	Mortaring	Period	Comments
10 1		M11	Unidentifi ed	2	74	0	0	0	0			
10 1		TZ21	Brick	1	68 7	0	0	12 0	6 5	1	C19 +	rounded regular arrises, striations on base wiped surfaces
10 1		TZ64	drain	1	14 6	0	0	0	0		C18 +	diameter 350 brown asalt glaze internal rilling C18+
10 4		TZ64	drain	1	23 7	0	0	0	0		C19 +	diam 170mm brown mat glaze female end
10 5		TZ22	Brick	1	24	0	0	0	0			
11 3	0 1	TZ11	B/T	9	10	0	0	0	0			
US		M00	Wall Plaster	1	5	0	0	0	0			
US		M11	Unidentifi ed	1 3	63	0	0	0	0			
US		TZ09	B/T	1	15	0	0	0	0			
US		TZ11	B/T	4	27	0	0	0	0			
US		TZ11	B/T	1	65	0	0	0	0			possibly from brick
US		TZ12	Tile	1	33	0	0	0	0			
US		TZ21	Brick	1	16 5	0	0	0	0	1		rounded regular sarrise
US		TZ21	Ridge Tile	2	24 5	0	0	0	0			Plain

Codes used

Mortaring: 1 – Traces of Mortar

Function: B/T – unidentified brick or tile fragment

## Fabrics



TZ09

TZ11

TZ21

TZ22

TZ64

Figure 1. 10mm wide cross sections of fabrics

- 11.3 TZ09 This is a red fabric which is hard with an irregular fracture and a sandy feel. It has inclusions of common quartz at 0.2mm with common lime at 0.2mm and moderate black iron stone at 0.4 mm
- 11.4 TZ11 this is a pale red fabric with a grey core. It is hard with a very irregular fracture and harsh feel, it has inclusions of common sub rounded quartz at 0.4mm with moderate black grits at 0/4mm and common elongate voids
- 11.5 TZ21 This is a pale reddish yellow fabric which is hard with a fine sandy feel and irregular fracture. It has inclusions of moderate lime up to 0.8mm and moderate quartz at 0.3mm and occasional black iron stone at 0.4mm
- 11.6 TZ22 This is a dark red to light brown fabric with an irregular fracture and fine sandy feel, it has inclusions of poorly sorted lime and quartz,
- 11.7 TZ64 This is a pale yellow very hard fabric with a harsh feel and irregular fracture. It has inclusion of some rounded quartz at 0.8mm, occasional pale clay pellets at 1.2mm and occasional black iron stone at 0.7mm.

## Forms

### *Brick*

- 11.8 Only one brick fragment with any complete dimension was noted, which was form (101) with a width of 120 mm and a thickness of 65mm which is in the range for 18th century or later bricks.

### *Ridge Tile*

- 11.9 There were 2 unstratified fragments of plain ridge tile

### *Drain*

- 11.10 There were fragments of brown glazed drain pipes from (101) and (104) of 18<sup>th</sup> - 20th century date.

### *Mortar and Plaster*

- 11.11 The mortar was generally in unidentifiable lumps, but there was an unstratified fragment of a fine grain white wall plaster.

## Discussion

- 11.12 This is a small group of post-medieval to modern material from Nottingham. The small fragment size and the wide range of fabrics and forms suggest that this is refuse material, probably deposited in a series of events.

## 12 CLAY TOBACCO PIPE *by Alison Wilson*

- 12.1 18 fragments of clay tobacco pipe were recovered during the excavation. In the absence of any identifying features such as makers stamps or decoration, the stems 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). The stem fragments recovered all had a bore hole diameter of 2mm and were of an 18<sup>th</sup> – 19<sup>th</sup> century date.
- 12.2 Topsoil layer (101) contained 9 fragments of stem with a bore diameter range of 1.5mm – 3mm, giving a wide manufacturing date of 17<sup>th</sup> – 19<sup>th</sup> century. One fragment was decorated with a roller stamp in the style of William Sefton, a clay pipe manufacturer based in Nottingham, working between 1696 and 1729.
- 12.3 Layer (106), part of the burial horizon, contained just 1 unmarked fragment of stem with a 1.5mm bore diameter placing it in the 18<sup>th</sup> – 19<sup>th</sup> century.
- 12.4 Cut [109] Fill (110), the grave cut of skeleton 02, contained the earliest fragment of stem with a 3mm bore diameter, likely to have been manufactured in the late 16<sup>th</sup> – 17<sup>th</sup> century.
- 12.5 Cut [107], the grave cut of Skeleton 01, also had associated fragments of clay tobacco pipe; 2 partial fragments of unmarked stem with a 1.5mm bore diameter giving a later date of 18<sup>th</sup> – 19<sup>th</sup> century, and an almost complete bowl with spur. The bowl was milled and bottered with a slightly bulbous bowl. Using Oswald's general typology (Oswald, 1975 p.40) this can be dated to c.1640-70.
- 12.6 Cut [112] fill (113), the grave cut of skeleton 03, contained a single small, undiagnostic fragment of clay pipe stem.
- 12.7 Cut [114] fill (115), the grave cut of skeleton 07 contained a single unmarked partial stem with a 1.5mm bore diameter placing the date of manufacture into the 18<sup>th</sup> – 19<sup>th</sup> century.
- 12.8 A further 8 fragments of unstratified clay tobacco pipe stem was recovered during the watching brief. These were all unmarked with a bore diameter range of 1.5mm – 3mm, giving a wide range of late 16<sup>th</sup> – 19<sup>th</sup> century.



Figure 1: Clay pipe bowl with spur, c.1640-70





Figure 2: Clay pipe stem with rouletted decoration, 17<sup>th</sup> – 18<sup>th</sup> century

### 13 GLASS *by Alison Wilson*

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- 13.1 Topsoil layer (101) contained 3 fragments of modern bottle glass; 1 fragment of embossed milk bottle, 1 clear plain fragment and a brown fragment. A single fragment of clear window glass was also recovered.
- 13.2 Layer (103) also contained fragments of modern bottle glass; 4 clear fragments, one green and one brown.
- 13.3 Burial horizon layer (105) contained 3 fragments of post-medieval bottle glass; one deep green fragment and 2 finer fragments from a smaller vessel, probably a medicine bottle. All the fragments were beginning to show signs of deterioration.
- 13.4 Burial horizon layer (106) contained just a single fragment of modern green bottle glass.
- 13.5 Cut [112] (113) contained small fragments of unidentifiable glass recovered during environmental processing.
- 13.6 A further 3 unstratified fragments of glass were found during the watching brief; 2 fragments of modern bottle glass, 1 green and 1 brown, and the neck of an earlier small clear medicine bottle.

## 14 METAL *by Alison Wilson*

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### Coffin furniture

- 14.1 A total of 19 coffin grips were recovered during the excavation. These were all simple, undecorated types, made of iron, badly encrusted and with no definition, indicating cheaper, poorer quality coffins. Six grips were found with skeleton 01, one in context [109] (110), one with skeleton 06, two were recovered from context [114] (115) the grave cut associated with skeleton 07, two in the topsoil layer (101), four in burial horizon deposits (105/6) while the remaining three were unstratified.



Figure 1: Iron coffin handle showing level of encrustation

- 14.2 14 iron coffin nails were also recovered, some with fragments of wooden coffin still attached. Two with skeleton 01 and one with skeleton 02. Two were in topsoil layer (101), six in burial horizon deposits (105/6) and four unstratified.



Figure 2: Coffin nail with coffin wood adherin

- 14.3 Fragments of metal coffin plate were recovered from the area associated with skeletons 01 and 03. The metal remains found with skeleton 06 also included fragments of a pressed metal coffin plate with a celestial crown motif; now in a poor and fragmentary condition, it is likely to have

comprised two angels holding a celestial crown (five points topped with stars) and GLORIA written along the base of the crown.



Figure 3: example of a 'celestial crown' pressed metal motif



Figure 4: Badly corroded fragment of coffin plate with 'celestial crown' motif found in association with skeleton 06

- 14.4 An unstratified small metal button was also recovered during the excavation as well as an unstratified decorative metal buckle of 19<sup>th</sup> century style.



Figure 5: Decorative metal buckle

- 14.5 Overall, the metal found during the archaeological excavations at Nelson's Solicitors carpark, and St Nicholas Church, Nottingham represents a 19<sup>th</sup> century assemblage of poorer quality iron coffin fittings

## 15 SLATE *by Alison Wilson*

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- 15.1 Two small fragments of slate, probably from roofing tiles were found, one unstratified and one in the topsoil layer (101).

## 16 THE ANIMAL BONE *by Dr. Kris Poole*

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### **Context (101)**

- 16.1 This context contained two large-sized mammal long bone fragments and a vertebra from a medium-sized mammal.

### **Context (105)**

- 16.2 This context contained a sheep astragalus, a fallow deer radius, a large mammal-sized rib and long bone fragment, a medium mammal long bone fragment, a fragment of bird pelvis, a bird long bone and an unidentifiable fragment.

### **Context (106)**

- 16.3 This context contained a cattle calcaneus, a pig third phalanx, a fallow deer lower third molar, a medium-sized mammal long bone fragment and vertebra, as well as two bird long bone fragments.

### **SK01**

- 16.4 Two unidentifiable bone fragments were retrieved from the grave fill.

### **SK03**

- 16.5 A medium mammal-sized vertebra was retrieved from the grave fill.

### **SK06**

- 16.6 A possible fallow deer radius and a fragment of medium-sized mammal long bone were intrusive into the grave fill of this skeleton.

## 17 DISCUSSION & CONCLUSIONS

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### *Overview*

- 17.1 Excavation on land within the rear carpark of 8 Pennine House (Nelson's Solicitors) allowed for the recovery of at least 7 articulated individuals, and at least 14 further disarticulated inhumations. The majority of skeletal material in this area is likely to have been truncated by groundworks associated with the current development and the development of the former factories and warehouses along Stanford Street, dating to the c 1860's.
- 17.2 The church and grounds were restored in the 1950's, with a letter dated 1955 which stated: "...the church has suffered neglect and decay over very many years and has put the church in danger and it was at one time in the balance as to whether it should be closed and demolished" (Wright 2013). The restoration of the church grounds may have included the rebuilding of the boundary wall which required underpinning with concrete that encroached on the area of the lower burial ground.
- 17.3 Excavations on site during the current development have allowed for a unique assessment of a relatively small sub-set of burials interred within the lower burial ground, with insights into the use of the land and a broad view of the demography and living conditions of its parishioners and the time frame within which the burial ground was in use. No evidence for earlier land use was identified within the site boundary.

### *The use of the land as a burial ground*

- 17.4 Whilst historic mapping suggests that the burial ground came into use around 1820 (Plate 4), the site may have been used for this purpose at any point between 1744 (which demarcates the site boundary as small allotment plots separated by a larger orchard to the north) and 1820, which formally identifies the area as a burial ground. An assessment of the surviving metal coffin furnishings identified during excavation suggests that the burials belong to a firmly 19th century date, although relatively high levels of disarticulated bone (>790) within the upper levels of the burial horizon (105/6) suggest that at least some may belong to an earlier phase of churchyard use.
- 17.5 Cartographic evidence suggests that the burial ground fell out of use by at least 1861 with the construction of Stanford Street (Plate 7) where it is no longer recorded as an active burial ground, though the site remains open and distinctly separate from the buildings to the north and north-east. Inhumations within the lower burial ground then have the potential to range in date from 1744 to 1881 (with a burial ground lifespan of approx. 137 years), at which point burial within a churchyard was outlawed, though a mid-range of these dates is more likely.

### *Demography*

- 17.6 Seven *in-situ* burials were identified and exhumed within the site. The remains were aligned east by west in the Christian manner, and exhibited evidence of traditional 19th century coffin furnishing. Analysis of the surviving coffin furnishings suggest that the coffins were relatively poorly made, with most burials belonging to a poorer class of society. This coincides with the general demography of the parishioners of St. Nicholas, who at this time were largely living in slum housing to the south of the site- demolished in the c 1950's to make way for Maid Marion Way (Lomax 2013; Wright 2013).
- 17.7 One burial, SK02, identified at a depth of c 1.1m b.g.l, displayed an unusual arching of the pectoral girdle which may suggest that the individual was tightly wrapped in a shroud or winding sheet within the coffin, though similar effects can be the result of rigormortis, particularly if the funerary ritual included the displaying or posing of the corpse prior to burial (Litten 1991). The act of lying in 'state' was a practice which gradually declined throughout the later 19th century as the time frame between death and burial decreased in line with a growing number of funerary services (*ibid*).



- 17.8 Whilst there was no notable segregation between adult male and female interments, no conclusions on male > female mortality rates could be drawn from the relatively small sub-sample of remains which have been excavated from the site.
- 17.9 Of particular note is the relatively high occurrence of juvenile and infant remains, both within the articulated remains and the disarticulated material. Mortality rates in England during the 19th century were notoriously high, with infant mortality reaching a peak of almost one third per 1000 births in the 19th century (taken from birth and death statistics, not including stillbirths, taken from Roser 2019), with rates steadily increasing within overcrowded and unsanitary city centres. Recorded causes of infant and juvenile death typically rise and fall alongside occurrences of infectious diseases such as Typhoid and Cholera, where children and elderly were the most vulnerable to infection. Whilst the current analysis of skeletal material was unable to diagnose specific infection, evidence for systemic infections in the form of periosteal new bone on SK04 and 05 (described above in section 8) give weight to the suggestion that children were most at risk of chronic infection, which increased in prevalence throughout the poorer echelons of society.
- 17.10 The excavation also allowed for the analysis of two individuals within burial plot [107], comprising SK01 and SK06, who appear to be close genetic relatives. The remains of an elderly woman (SK06) and a young-middle aged male (SK01) are unique in that they have allowed for specific analysis of genetic traits and inherited conditions (such as a bifid xiphoid process and thoracic scoliosis), without the benefit of documentary records.
- 17.11 Whilst the excavation revealed no structures or features relating to earlier site use, the presence of pottery and clay pipe, ranging in date from the 13th to 19th century, suggest that the site was subject to continued use throughout the medieval and post-medieval period.

#### *Recommendations*

- 17.12 The lower burial ground of St. Nicholas Church represents one of the least well understood Anglican burial grounds in Nottingham, and as such would benefit from further research. The subject of Post-Medieval cemeteries is an under-published theme for Nottingham City and the region more widely, and this research could help to fill a void in Nottingham's published history.
- 17.3 On the basis of the results of the excavation, and the potential for further information which could be gained both from the study of the exhumed individuals and the site as a whole, the following recommendations have been made in consultation with the City Archaeologist:
- A collaborative documentary research project with the City Archaeologist for Nottingham City, the Nottingham Museum Service, and TPA which will seek to answer the following questions:
    - By what date was the lower burial ground of St. Nicholas Church consecrated, and by what date did it formally fall out of use?
    - Was the lower burial ground primarily in use by those of lower social status, and are there observable differences in burial practices between the upper and lower burial grounds?
    - Was the burial ground in use by the inhabitants of the St. Nicholas Workhouse?
    - Will a study of the burial records, tax information and borough records elucidate further the use of the burial ground and do these records correlate to documented outbreaks of infectious disease?
    - On the basis of these results, is it possible to compile a palaeoepidemiological review of the parishioners of St. Nicholas Church?
  - An enhanced osteological analysis, including stable isotope analysis, X-Ray, mycobacterial analysis, and aDNA.
  - Graveyard survey within the upper burial ground of St. Nicholas Church.

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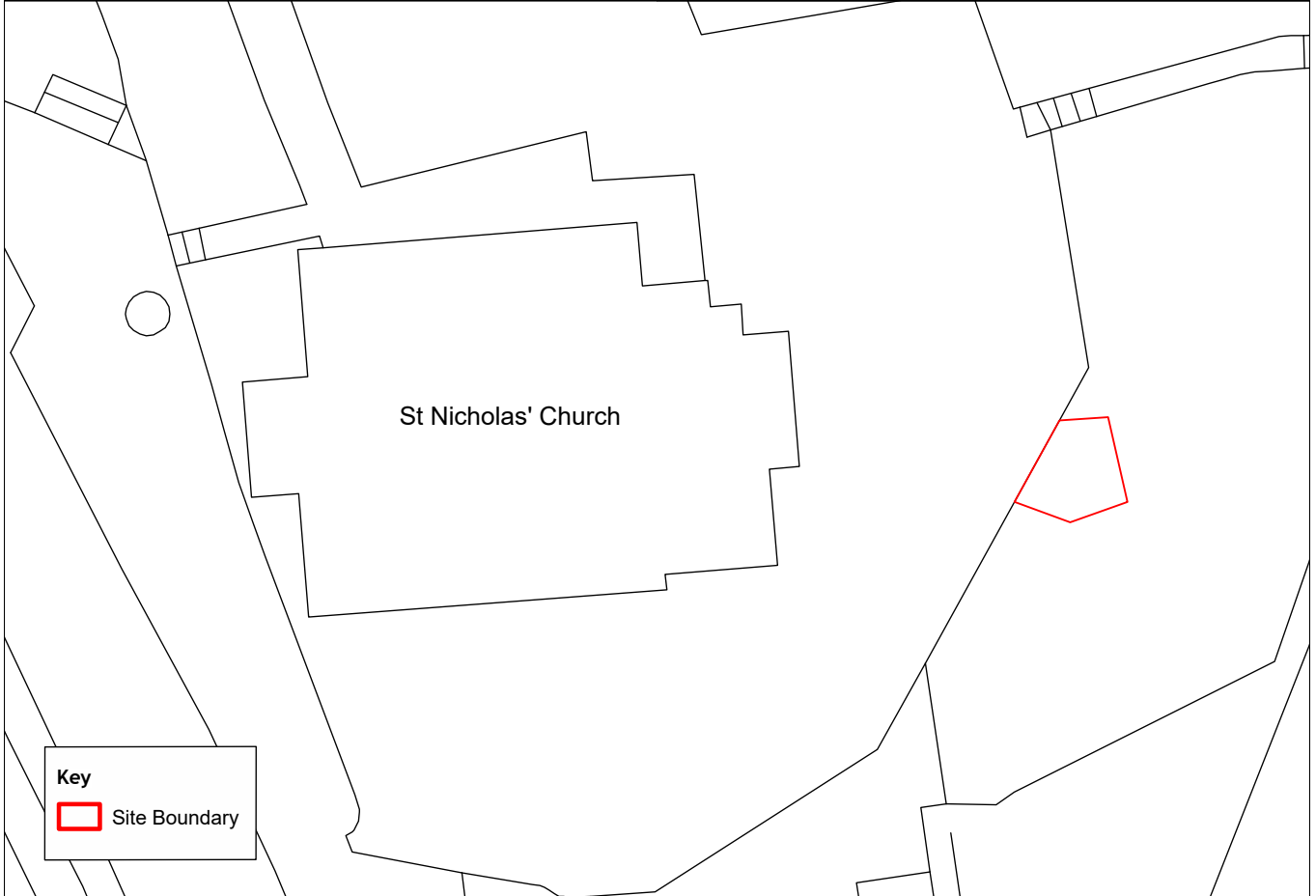
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## 19 CONTEXT REGISTER

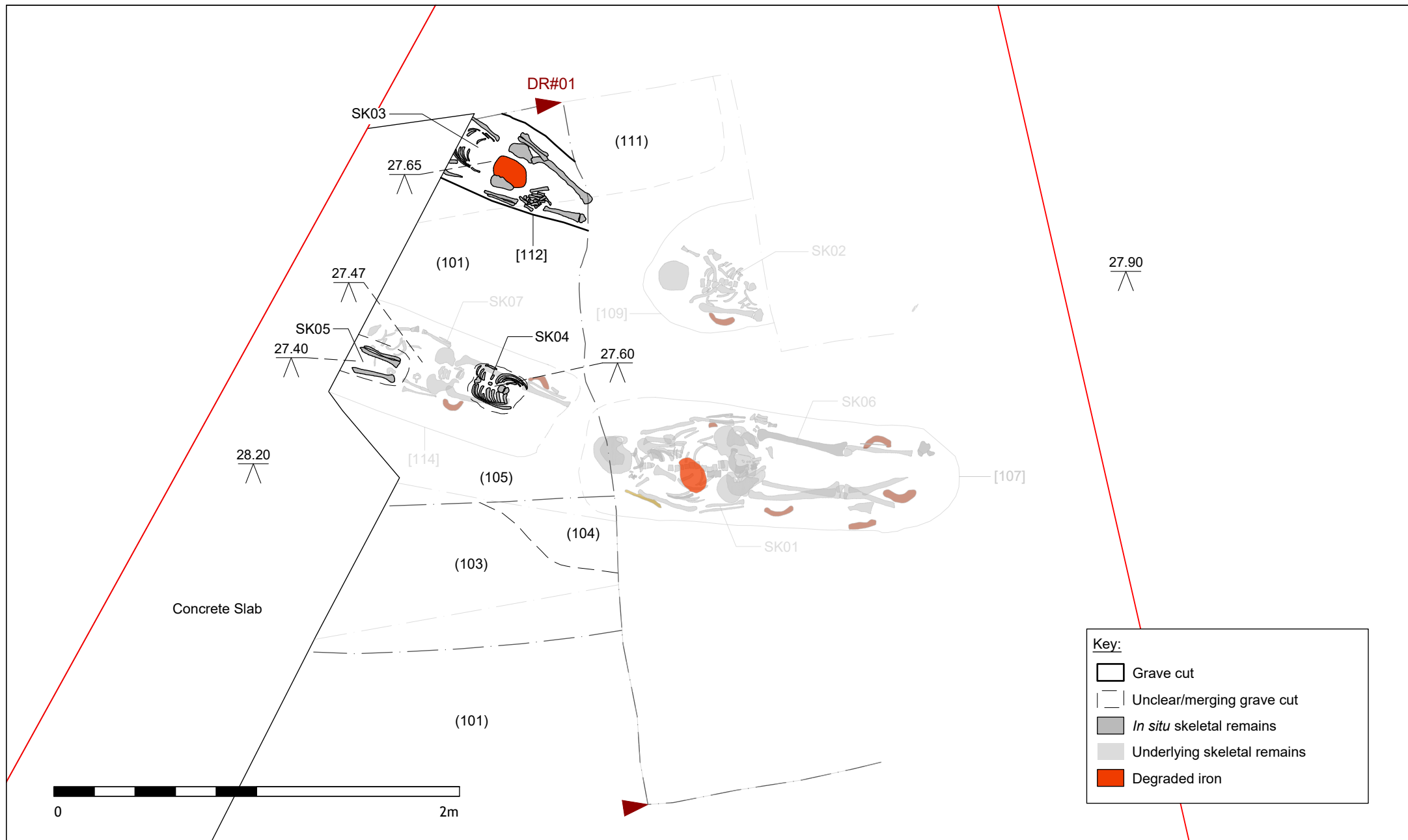
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101	Layer	Topsoil. Friable dark greyish black silty sandy clay.	Modern
102	Layer	Gravel hardcore. Light whiteish yellow sand and gravel.	Modern
103	Layer	Redeposited clay. Firm light-mid orangish red.	Modern?
104	Deposit	Possible buried topsoil. Friable dark blackish grey clayey silt.	Post-med?
105	Deposit	Burial horizon. Firm dark orangish brown sandy silt with clay.	Post-med
106	Deposit	Burial horizon, same as (105).	Post-med
107	Cut	Grave cut containing SK01 & SK06.	Post-med
108	Fill	Fill of [107] Firm mid-brownish grey silty sand	Post-med
109	Cut	Grave cut containing SK02.	Post-med
110	Fill	Fill of [109]. Soft dark brownish grey sandy silt	Post-med
111	Fill	Possible fill of an additional grave cut, not excavated.	Post-med
112	Cut	Grave cut containing SK03.	Post-med
113	Fill	Fill of [112]. Soft dark greyish brown sandy silt.	Post-med
114	Cut	Grave cut containing SK07.	Post-med
115	Fill	Fill of [114]. Soft/ friable dark greyish brown sandy silt.	Post-med

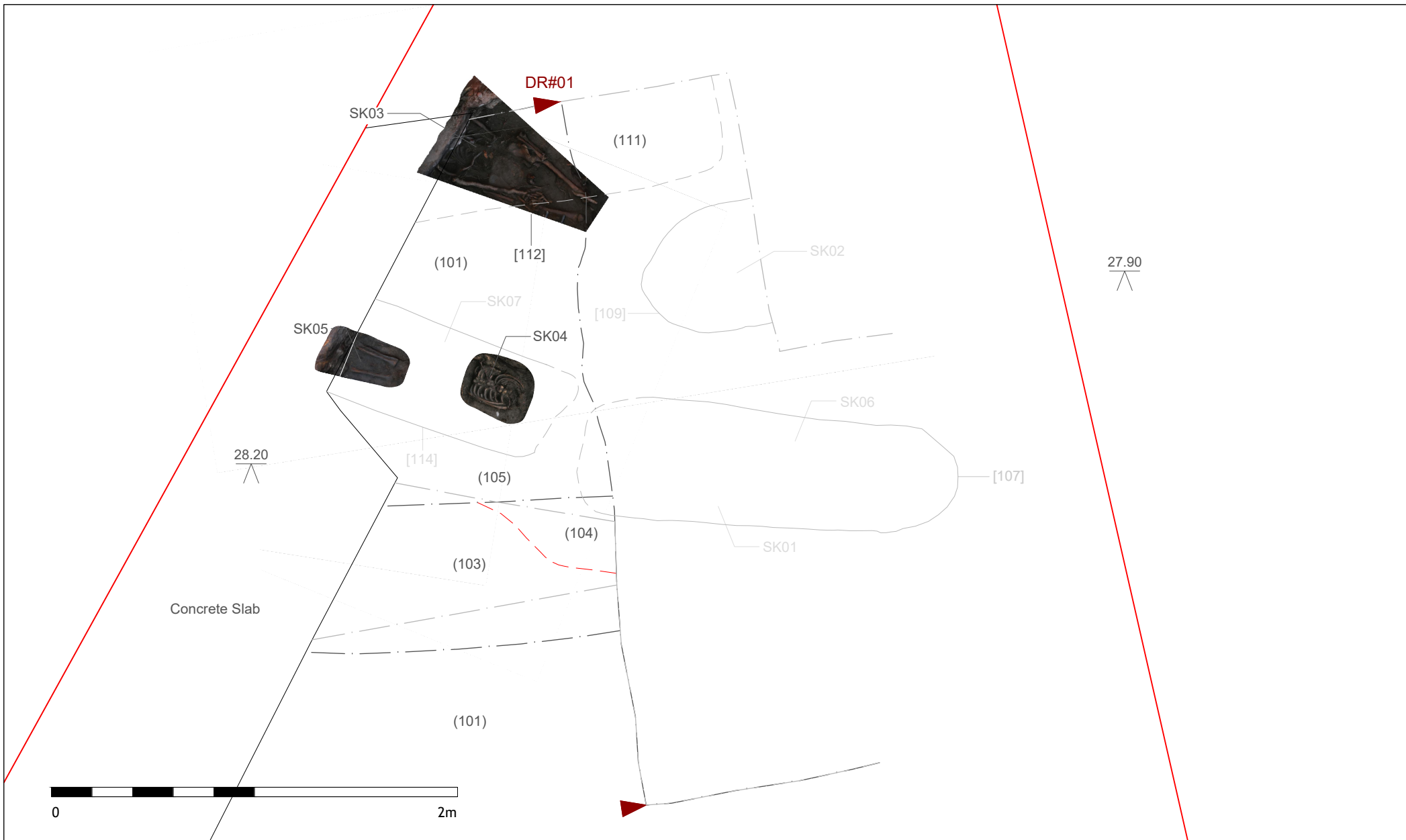
## 20 FIGURES

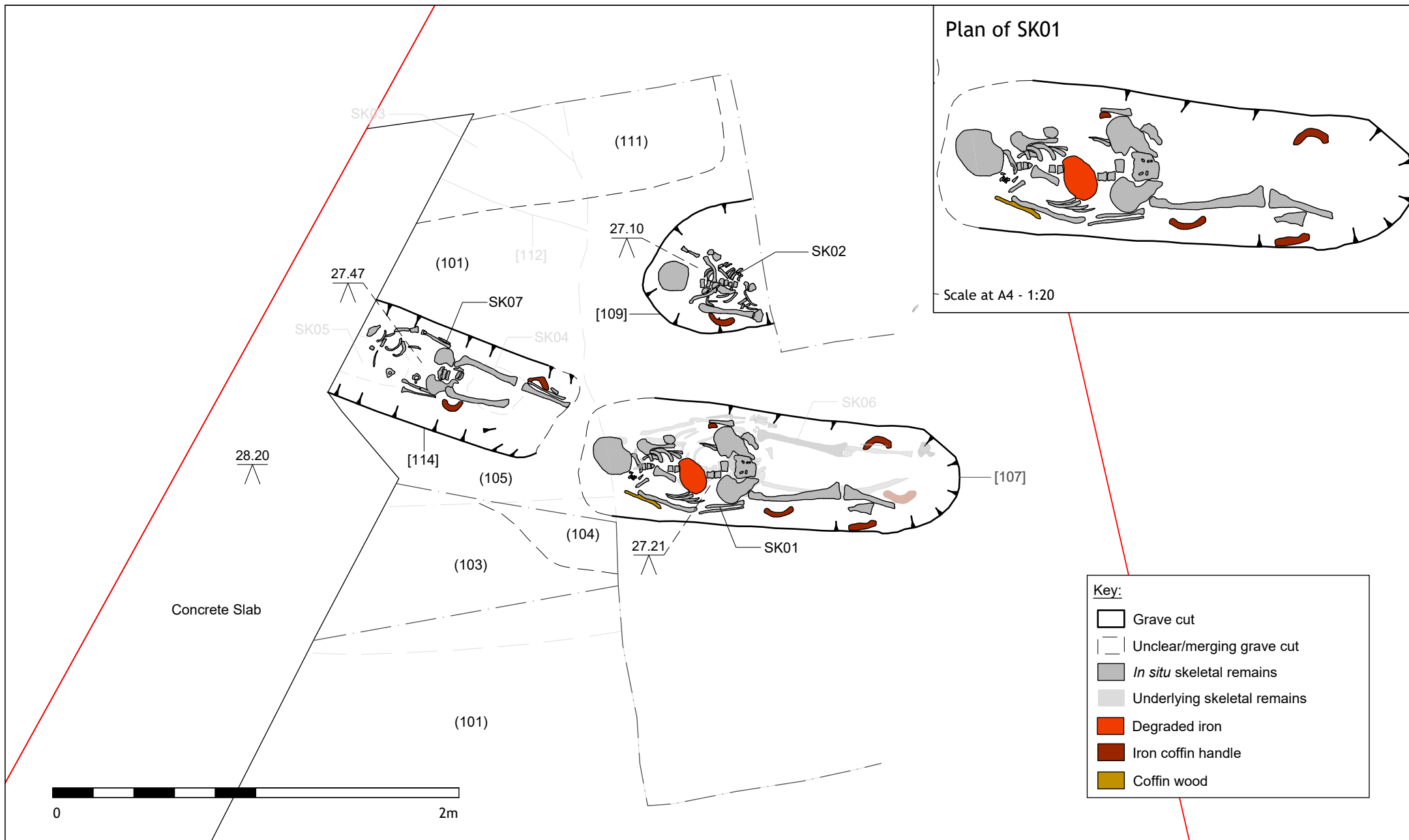
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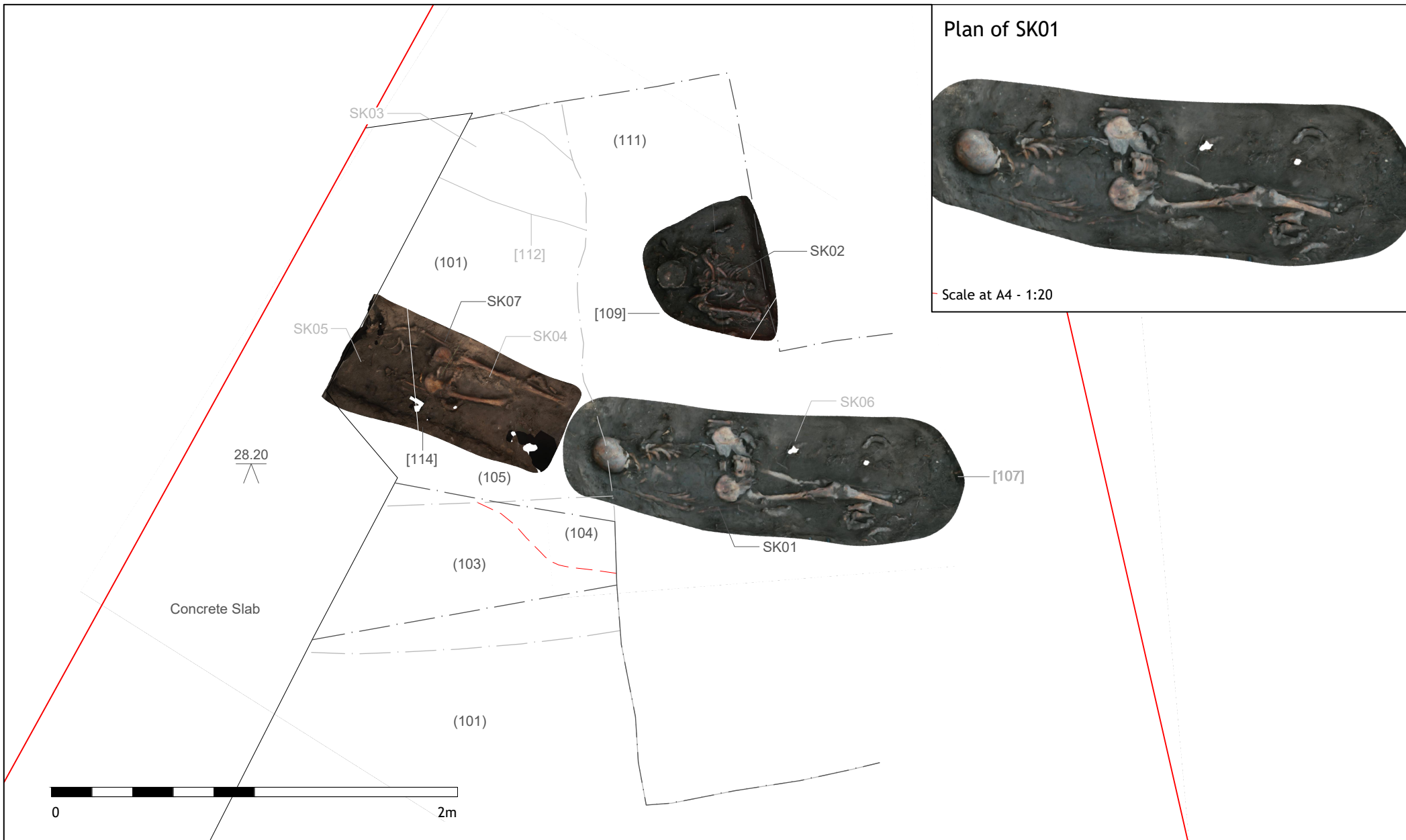
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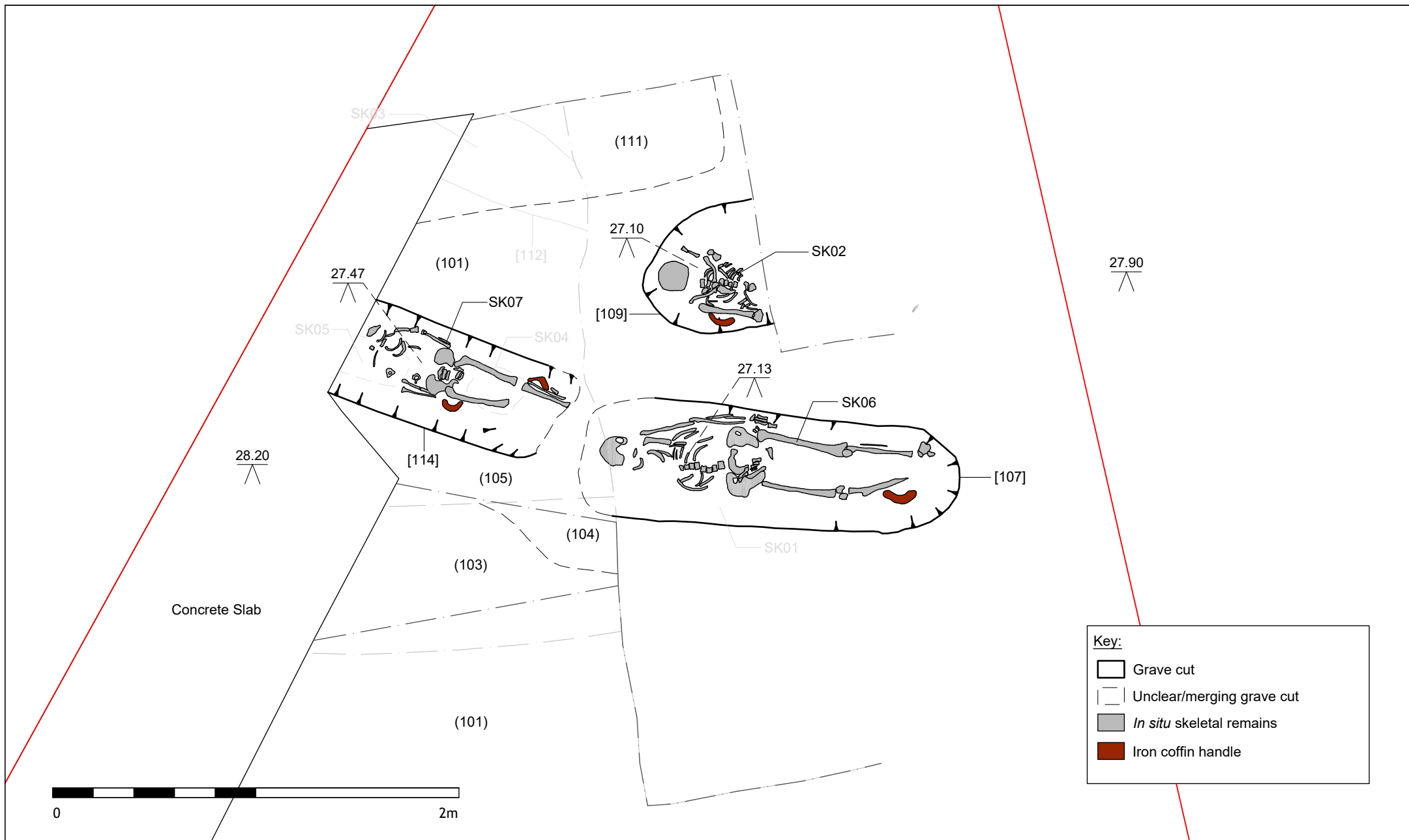
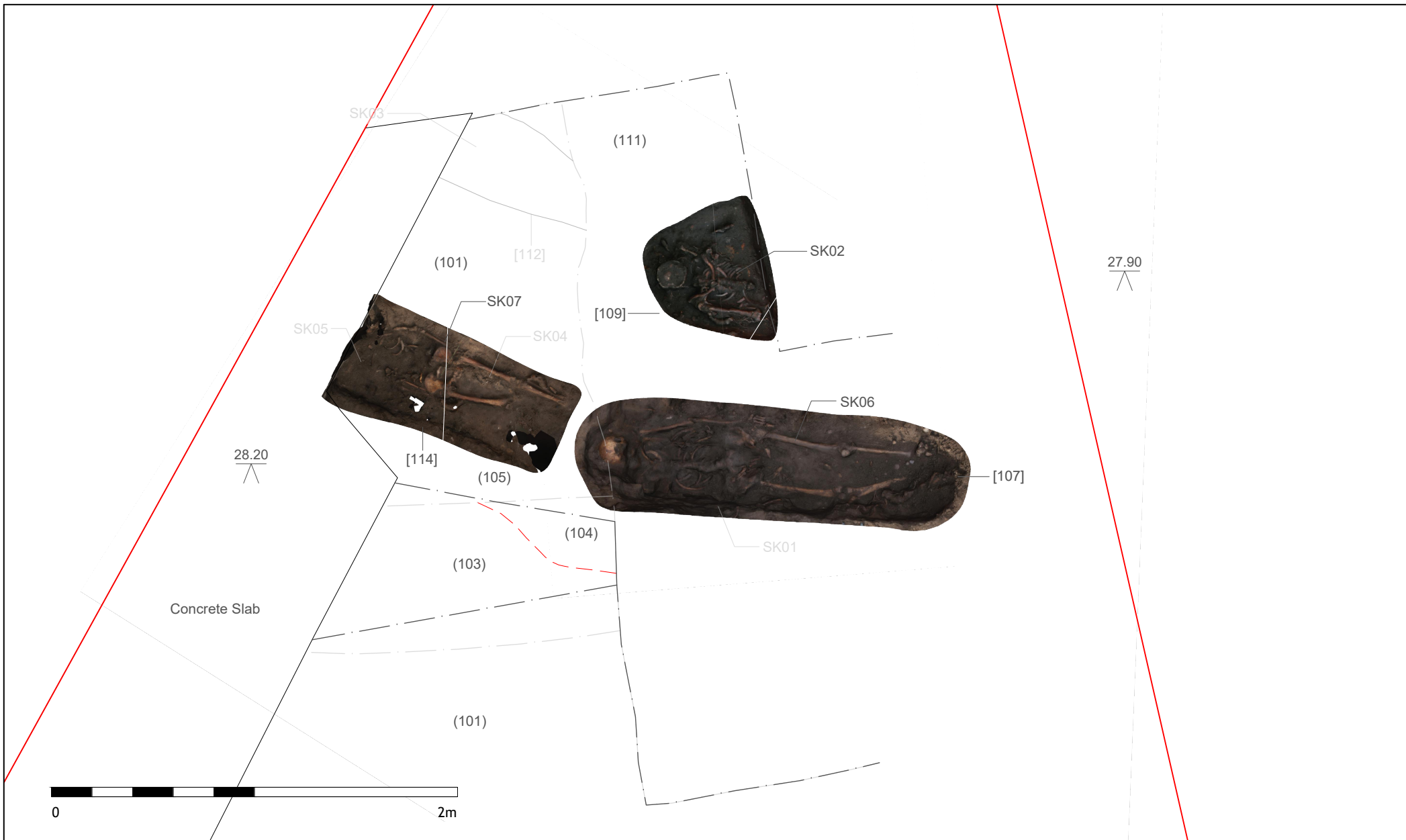
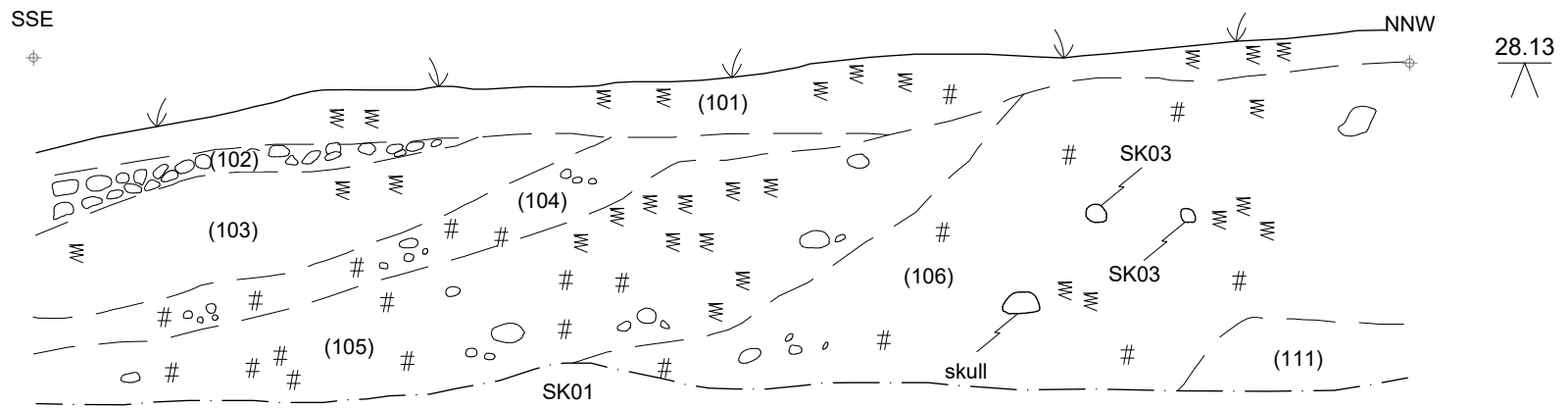


Figure 04 - Plan of SK02, SK06 and SK07  
 CNN - Former Boundary of St Nicholas' Church/Nelsons Solicitors

Scale at A4 - 1:25  
 Drawn by NO



DR#01  
East South East Facing Mid-Excavation Section





21 PLATES

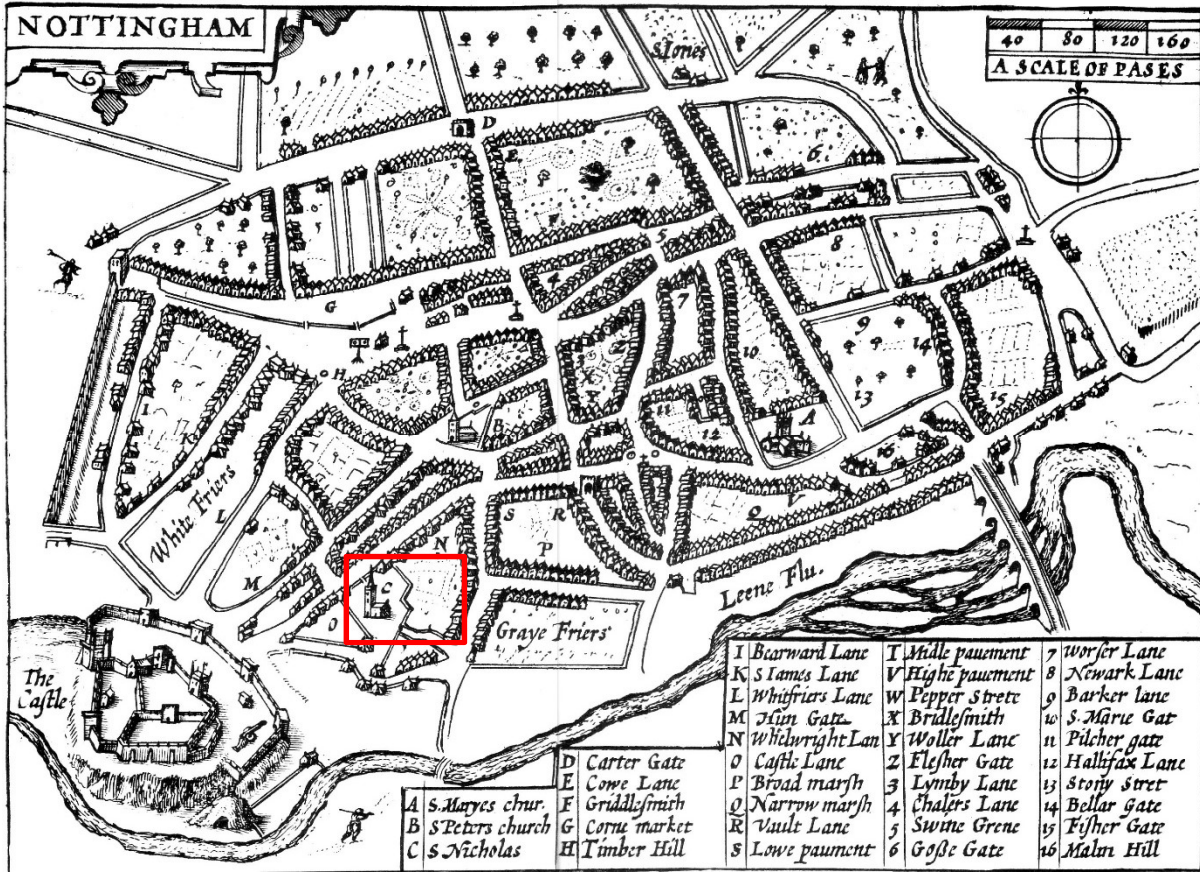


Plate 1: Speed's map of Nottingham c 1610. Showing the area of the earlier church of St. Nicholas (red)



Plate 2: Henry Overton's "A New Mapp of Nottingham" c 1714. Showing the rebuilt church of St. Nicholas and the area of the later overspill burial ground (red).



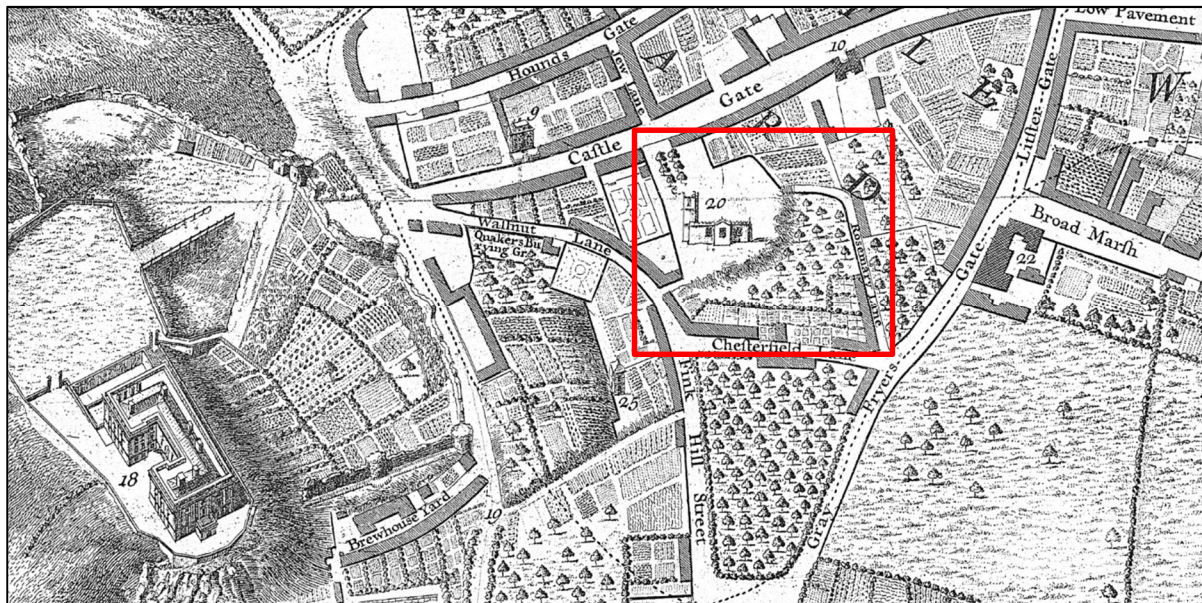


Plate 3: Badder and Peat's Map of Nottinghamshire (west) c 1744, showing the land around the rebuilt church of St Nicholas in use as an orchard, which is separated to the south by allotment plots (red).

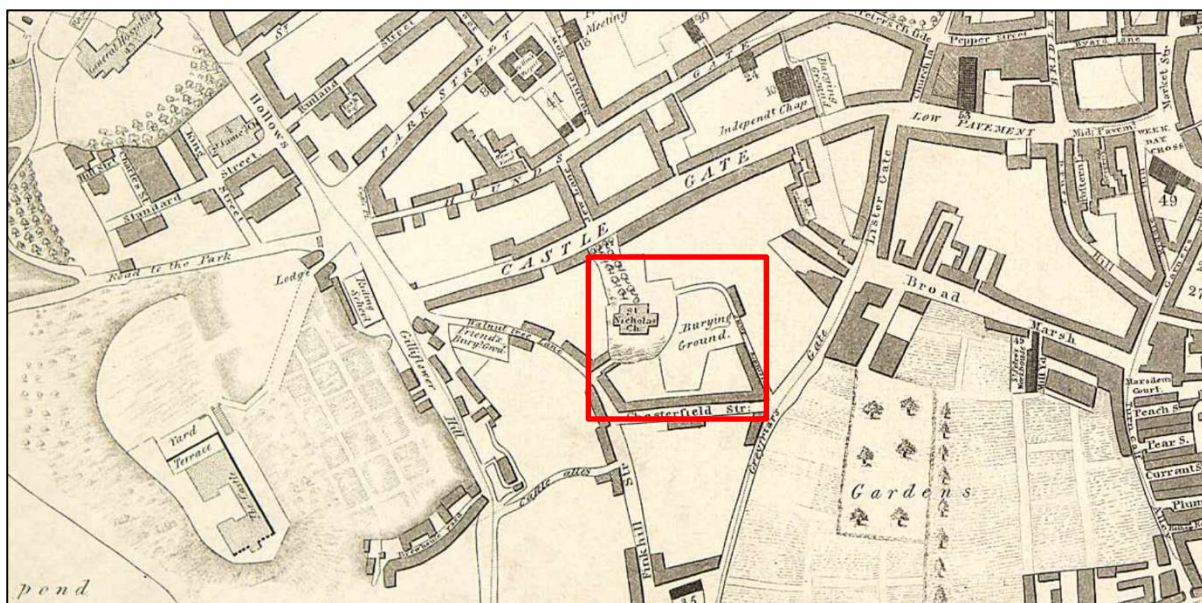


Plate 4: Smith and Wild's "A New Plan of the Town of Nottingham" c 1820. This map is the first to show the area actively in use as a burial ground (red).



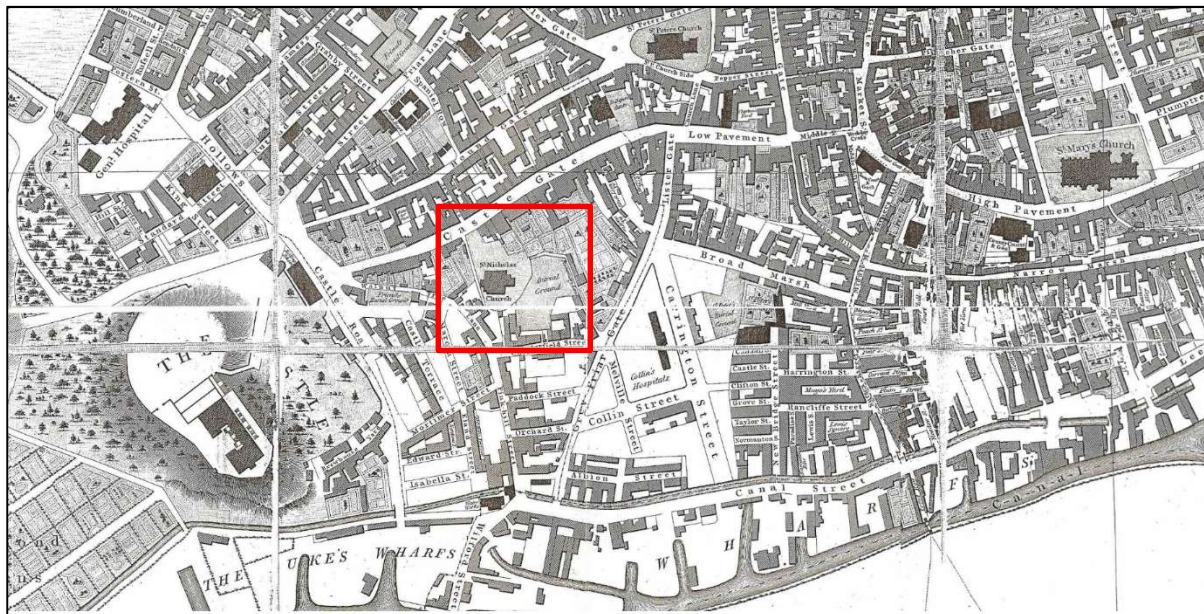


Plate 5: Staveley and Wood's "Plan of the Town and County of Nottingham" c 1831. The area of the lower burial ground has extended to the north and south-west.



Plate 6: Dearden's "Plan of the Town of Nottingham" c 1844. The area of the lower burial ground remains the same, whilst the adjacent "friends' burying ground" has shrunk considerably.



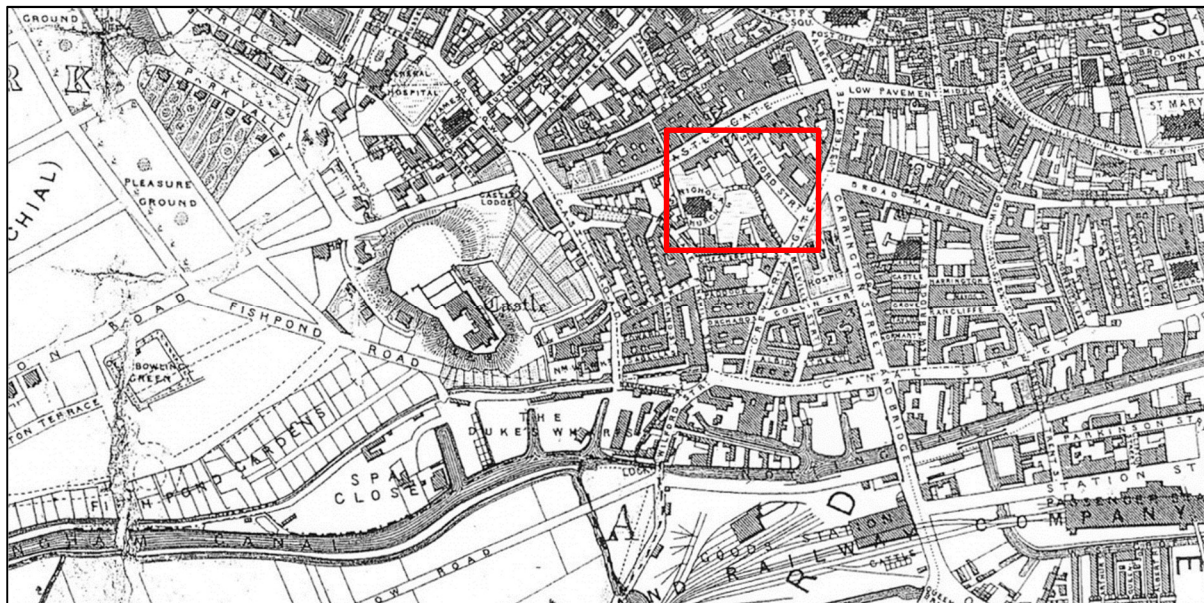


Plate 7: Jackson's map of Nottingham (SW part) c 1851-61. The burial ground no longer appears on regional mapping, suggesting that it has fallen out of use by this time. The map shows the gradual development of areas surrounding the burial ground with the creation of Stanford street, and later factory structures which encroached on the area and later became the car park.



Plate 8: General area shot looking north, prior to excavation. No scale.





Plate 9: Northern area of the site, mid excavation section photo. Stepped to allow for preservation of human remains identified in section. Looking west, scale 1m.





Plate 10: Southern area of the site. Mid-excavation section photo, showing landscaping deposits (102-104) which have removed the earlier burial ground. Looking west, scale 1m.



Plate 11: Plan photo of the area of SK01 prior to archaeological excavation, revealed by contractors. Looking west, scale 0.3m.



Plate 12: Plan photo of area after removal of topsoil and landscaping deposits. Looking south, scale 1m x 1m.



Plate 13: Plan photo of SK04. Looking north, scale 0.3m.





Plate 14: Plan photo of SK03 showing the burial extending into the area of the concrete underpinning. Looking west, scale 1m.



Plate 15: Plan photo of SK03, showing a degraded metal coffin plate over the area of the abdomen and pelvis.





Plate 16: Plan photo of SK05, showing tibia and fibula extending out of the area of concrete underpinning. Looking south, scale 0.20m



Plate 17: Plan photo of SK02 within the northern area of the site. Truncated to the south-east by machining. Looking north-west, scale 1m.





Plate 18: Plan photo of SK01 within burial plot [107]. Looking west, scale 1m.



Plate 19: Working shot of SK01, mid-ex. Showing preserved wood coffin fragments to the right of the skull and degraded metal coffin plate fragments over the lower abdomen. Looking south, no scale.





Plate 20: Plan photo of SK07, which had been truncated by concrete underpinning. Looking north, scale 1m.



Plate 21: Plan photo of SK06. Looking north-west, scale 1m.



Plate 22: Mid-ex photo of SK06, showing scoliotic curvature of the spine in situ. Looking south, scale 0.3m.

## Appendix 1: Pottery data

Table 1: Pottery occurrence by number and weight (in g) of sherds per context by fabric type.

Cntxt	ST		NOTGL		NOTLGW		MPUR		MY		PMBL		TGW		STSL		STMO		NOTS		CREA		TPW		YELL		Date
	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	
U/S											4	127							1	92							U/S
Spoil U/S			1	5	2	32	3	62	5	79			1	2							2	11	1	1			U/S
101			1	13			1	27	1	45							1	6	1	1			2	20			MOD
103							1	9						1	4				1	6	1	4					M18thC
105							1	12								1	8			2	7	1	6				MOD
106	1	3					1	2	2	37	3	103			2	19			2	10	3	12					M18thC
107											1	9									1	2					M18thC
109																	1	1	1	2							18thC
113																									1	2	MOD
Total	1	3	2	18	2	32	7	112	8	161	8	239	1	2	3	23	3	15	6	111	9	36	4	27	1	2	



## Appendix 2: Table of disarticulated human remains

Area	Context	Frag Count	Element	Side	Proximal, Distal, Shaft or Area	Sex	Age	Measurements	Pathology	Comments
SK06		1	Fibula	Right	Distal		Adult		Marginal osteophytes on superior surface of malleolar; along the tibio-fibular ligament.	
SK06		1	Humerus	Left	Shaft, distal	F?	Adult	54.3mm (distal epi width)		Partial septal aperture? Incomplete
SK06		1	2nd Metacarpal	Right	Shaft, distal		Adult			Corroded iron on distal end
SK06		1	3rd interproximate phalange	Left	Complete		Adult	24.7mm (total length)		
SK06		1	3rd or 4th Metacarpal	Right	Mostly complete		Juvenile			Proximal end unfused
SK06		1	Hamate	Right	Complete		Adult			
SK06		1	Intermediate cuneiform	Left	Complete		Adult			
SK06		1	Proximal foot phalange		Shaft, proximal		Adult			
SK06		1	Proximal hand phalange?		Shaft		Adult?			
SK06		1	Distal hand phalange	Right	Mostly complete		Juvenile			Distal end unfused (< 18y)
SK06		1	Rib, vertebral end	Left	Neck and tubercle		Adult			
SK06		1	Rib, sternal end	Left	Shaft, sternal		Adult			Articular surface pitted
SK06		1	Rib	Right	Head, neck		Adult?			Articular surface of head pitted
SK06		1	Rib	Right	Shaft, sternal end?		Adult			
SK06		1	Rib		Sternal end		Adult			
SK06		1	Rib		Shaft		Adult?			
SK06		1	Hyoid		Greater horn		Juvenile			Unfused
SK06		1	Cervical vertebrae		Lamina, partial spinous process		Juvenile			Likely less than 6 yo

SK06		1	Cranial		Maxilla, lacrymal canal, possible maxillary sinus pocket		Adult		
SK06		1	Ilium	Left	Mostly complete		Infant		
SK06		8	Cranial		Parietal, temporal, small fragments		Infant		
SK06		1	Zygomatic	Right	Mostly complete		Adult?		Partial maxillary bone attached
SK06		5	Mandible	Left	LLDP4 LLD12, LLDP3, LRDC, mandibular bone		Infant (10.5 M - 1.5 Y)		LLDI2 possibly partially erupted.
SK06		1	Tibia	Right	Partial distal epiphyses. Distal articular surface only.		Adult		
SK06		1	Fibula		Shaft		Adult		
	106	2	Cranial		Occipital, parietal	F?	Adult		Slight occipital bun
	106	1	Cranial		Parietal		Infant		Cortical flake
	106	1	Mandible	Left		M?	Adult 25-35	Periodontal disease; Approx 2mm alveolar recession more apparent around molars. Moderate calculus along CEJ, more apparent on labial side. Caries along CEJ of all remaining teeth.	Teeth in mandibular arc: LLP4, LLM1, LLM2, LLM3
	105	1	Cranial	Right	Frontal, orbit		Infant (1-2Y)	Porotic hyperostosis?	Water damage across frontal squama. Post depositional cortical damage.
	105	1	Cranial	Left	Frontal squama, orbit		Neonate		
	105	1	Cranial		Parietal		Adult		
	105	1	Interproximate hand phalange (3rd?)	Right	Complete		Adult		

	105	1	Calcaneous		Medial aspect only		Adult			
	105	1	Rib	Left	Shaft		?			
	105	1	Fibula	Right	Shaft		Adult			
	105	1	Femur		Shaft		Adult			
	105	1	Long bone?		Epiphysis and shaft		Infant			
U/S	U/S	1	Calcaneous	Left	Superior surface, heel and articular surface		Adult			
U/S	U/S	1	Calcaneous	Left	Plantar surface, heel only		Adult		Small osteophyte along plantar ligament	
U/S	U/S	1	Femur	Right	Neck, intertrochanteric crest, partial shaft		Young juvenile			
U/S	U/S	1	Femur	Right	Shaft, neck, lesser trochanter		Adult			
U/S	U/S	1	Tibia	Left	Shaft		Adult			Iron staining on anterior surface
U/S	U/S	1	Fibula	Right	Shaft		Adult			
U/S	U/S	1	Humerus	Left	Shaft, partial distal epiphysis		Adult			
U/S	U/S	1	Fibula	Right	Shaft		Adult			
U/S	U/S	1	Humerus	Left	Shaft		Adult			
U/S	U/S	1	Ulna?	Left	Shaft		Adult		Pronounced antero-lateral bend - possible healed trauma	
U/S	U/S	1	Radius	Left	Shaft		Adult			
U/S	U/S	1	Femur		Shaft, partial distal epiphysis		Sub-adult			
U/S	U/S	1	Talus	Left	Head		Sub-adult			
U/S	U/S	1	3rd metacarpal	Left	Complete		Adult			
U/S	U/S	1	2d metacarpal	Left	Proximal, shaft		Adult			
U/S	U/S	1	4th metatarsal	Left	Shaft, distal		Adult			
U/S	U/S	1	3rd metatarsal	Left	Shaft, distal		Adult			
U/S	U/S	1	5th proximal foot phalange	Right	Complete		Adult			
U/S	U/S	1	Ilium	Right	Partial iliac blade		Infant			

U/S	U/S	1	Os Coxae	Right	Ilium, greater sciatic notch, lunate surface of acetabulum	F	Adult			
U/S	U/S	4	Rib		Fragments of shaft		Adult			
U/S	U/S	1	Rib	Left	Vertebral end		Adult			
U/S	U/S	1	Thoracic vertebra		Body and transverse process		Adult			
U/S	U/S	1	Thoracic vertebra		Lamina, transverse process		Adult			
U/S	U/S	1	Lumbar vertebra		Lamina, superior articular facet		Adult			
U/S	U/S	1	Humerus	Left	Complete		Infant (newborn > 1.5mths)	Length: 71.9mm		Falls within female mean measurements - based on Maresch (1970) - juvenile osteology
U/S	U/S	1	Cranial, temporal	Left	Petrous part; Internal auditory meatus		Adult			
U/S	U/S	1	Cranial		Occipital part; cruriform eminence, cerebral fossa	F?	Adult			
U/S	U/S	1	Mandible	Left		F?	Adult		All teeth lost antemortem; alveolar remodelling complete	Broken along the mental eminence and oblique line
U/S	U/S	1	Pars basilaris		Complete		Infant (approx 1yr 2mths)	Max width: 19.3mm; sagittal length: 15.7mm; Max length: 21.3mm		
U/S	U/S	1	Pars petrosa	Left	Complete		Infant (approx 40 weeks gestation)	Max width: 39.0mm; 17.1mm		
U/S	U/S	2	Mandible		Joining fragments		3 years +/- 12 mths			LL & LR DP3, DP4'S present in dental arcade. Crowns of L1&2 visibly developing in crypt. (Age estimation: Ubelaker 1979)
U/S	U/S	1	Scapula	Left?	Spine, partial spinous process, partial body		Infant	No measurements possible		



U/S	U/S	1	Scapula	Right	Glenoid fossa, spine and partial lateral boarder		Adult		Pitted groove within glenoid fossa	
U/S	U/S	3	Cranial		Parietal fragments		Adult			
U/S	U/S	1	Cranial		Occipital, internal occipital crest		Adult			
U/S	U/S	1	Cranial		Fragment-possibly parietal		Adult			
U/S	U/S	3	Cranial		Temporal		Adult			
U/S	U/S	6	Cranial		Parietal, frontal		Infant, juvenile			
U/S	U/S	1	Rib	Left	Sternal end		Adult			
U/S	U/S	1	Cranial		Fragment-occipital?					
	106	1	Femur	Right	Partial head and neck		Adult		Osseous spur at fovea capitis. Pitting and mils marginal osteophytes visible along articular surface.	
	106	1	Femur	Left	Shaft, distal metaphysis		Adult		Swollen, periosteal new bone around shaft & cortical thickening. Possible areas of thickened trabeculae within medullary cavity. Disorganised bone growth. DD's: Osteomyelitis or Paget's disease.	No cloacae. Photographed.
	106	1	Femur	Left	Shaft, both metaphyses		Adult			
	106	1	Femur	Right	Head, partial neck		Adult			
	106	1	Femur	Right	Shaft, partial distal		Adult			
	106	1	Tibia	Right	Distal		Adult		Mild marginal osteophytes	Squatting facet
	106	1	Femur	Left	Partial distal		Adult			
	106	1	Femur	Left	Shaft, partial lesser trochanter		Adult			
	106	1	Tibia	Right	Partial proximal		Adult			
	106	1	Femur		Shaft fragment		Adult			
	106	1	Tibia		Shaft fragment		Adult			
	106	1	Fibula	Right	Shaft fragment		Adult			

	106	1	Tibia	Right	Partial proximal		Adult		
	106	1	Femur	Left	Shaft, neck		Juvenile- early adolescence		Age estimation from non fusion of lesser trochanter
	106	1	Femur	Right	Shaft		Juvenile		
	106	1	Femur	Right	Shaft and distal		Juvenile (<16Yo- approx 12Yo?)		Age estimation based on non fusion of the distal epiphysis
	106	1	Femur	Right	Shaft and distal metaphysis		Adult		
	106	1	Femur	Right	Shaft		Adult		
	106	1	Tibia		Shaft and distal metaphysis		Juvenile (early adolescence?)		Age estimation based on non fusion of the distal epiphysis
	106	1	Tibia	Left	Shaft		Adult		
	106	1	Fibula	Left	Shaft		Adult		
	106	1	Tibia		Fragment of shaft - anterior surface		Adult		
	106	1	Tibia		Fragment of shaft		Adult		Mild periosteal reaction
	106	1	Femur	Right	Proximal		Juvenile - early adolescent		Age estimation based on non fusion of femoral head
	106	1	Femur?		Partial neck/ intertrochanteric crest		Adult		
	106	1	Tibia	Left	Shaft		Adult?		
	106	1	Os Coxae	Left	Partial auricular surface, superior iliac spine		Adult (25-34yo)		
	106	1	Os Coxae	Left	Ilium, partial ischium: Auricular surface, greater sciatic notch, partial acetabulum.	F	Adult (30-39yo)		
	106	1	Os Coxae	Right	Ischium, partial acetabulum, ischial tuberosity		Adult		
	106	1	Sacrum		First sacral segment, right ala.		Adult		Mild pitting on sacroiliac joint surface

	106	1	Os Coxae	Right	Ilium, partial acetabulum		Adult		
	106	1	Os Coxae		Pubis? partial acetabulum and ramus		Adult		Marginal osteophyte along inferior ramus ridge, marginal osteophytes along acetabulum, pitting on acetabular joint surface, slight alteration of joint contour. OA of hip.
	106	1	Vertebrae		Atlas (C1), mostly complete		Adult		
	106	1	Vertebrae		Thoracic lamina/ transverse process		Adult		
	106	1	Vertebrae		Thoracic. Body and partial lamina		Adult		Slight medio-lateral bend in spinous process
	106	1	Vertebrae		Probable thoracic body portion		Juvenile		
	106	1	Vertebrae		Possible lumbar or sacral portion		Juvenile		
	106	1	Vertebrae		Cervical, body portion		Adult		
	106	1	Scapula	Right	Scapular neck/ spine		Juvenile- sub-adult		
	106	1	Scapula		Body fragment		Adult		
	106	1	Humerus	Right	Shaft and distal epi fragment		?		Possible septal aperture? Masked by post-dep damage
	106	1	Humerus?	Right	Distal epiphysis		Juvenile (<10Yo)		Age estimation based on non fusion of distal epiphysis
	106	1	Calcaneus	?	Heavily fragmented body portion		Adult?		
	106	1	Talus	Right?	Head, neck and partial calcaneal articular surface		Adult		
	106	1	Cranial	Left	Temporal/ petrous portion, including internal auditory meatus		Adult?		
	106	1	Cranial		Partial frontal, nasal, maxillary bone		Juvenile- poss infant?		Metopic suture
	106	1	Cranial	Left	Zygomatic and partial maxilla		Sub-adult?		
	106	3	Cranial		Parietal, occipital and temporal		Adult		

	106	1	Cranial		Parietal		Adult			
	106	1	Ulna	Left	Proximal		Adult		Small plaque of bone along humero-ulnar articular surface	
	106	1	Humerus	Left	Shaft, partial distal	F?	Adult			
	106	1	Humerus	Right	Shaft, partial distal		Juvenile			No further refinement of age could be made
	106	1	Humerus	Left	Shaft, partial distal		Adult?			
	106	1	Humerus		Shaft		Adult			
	106	1	Ulna	Right	Shaft, distal		Adult			
	106	1	Humerus	Right	Shaft only		Adult			
	106	1	Fibula?	?	Fragmented distal		?			
	106	1	Ulna	Left	Partial proximal and shaft		Adult			Heavy taphonomic wear-possible water damage
	106	1	Humerus	?	Shaft		Juvenile		Marked periosteal activity. Slight bony ridge along anterior surface possibly indicating healed injury. Sclerotic periostitis?	Unable to refine age estimation further. Photographed
	106	1	Clavicle	Right	Shaft and lateral epiphysis		Juvenile			Medial epiphysis broken. Unable to refine age estimation further.
	106	1	Femur	Right	Shaft, partial lesser trochanter		Juvenile (>4Yo)			
	106	1	Femur	Right?	Shaft, partial proximal		Infant			
	106	1	Ulna	?	Shaft, distal		Juvenile (<7Yo)			
	106	1	Tibia	Right	Shaft, partial proximal		Infant			
	106	1	Fibula	?	Shaft		Sub-adult			
	106	1	Tibia	Left	Shaft and partial proximal		Infant			
	106	1	Proximal hand phalange	?	Complete		Sub-adult (<16Yo)			Distal epiphysis unfused
	106	1	Proximal hand phalange	Left	Mostly complete		Adult			Damage to distal portion
	106	1	Metatarsal	?	Shaft		Sub-adult			
	106	1	3rd Metatarsal	Right?	Shaft and partial distal		?			

	106	1	1st rib	Left	Body, partial lateral aspect		Adult			
	106	1	Rib	Left	Shaft		Juvenile			
	106	1	Rib	Right	Vertebral end		Juvenile			
	106	1	Rib		Shaft		?			
	106	1	Rib	Left	Sternal end		Adult			
	106	1	Rib	Right	Shaft		Adult			
	106	1	Rib	Left	Head		Juvenile			
	106	1	Rib	Left	Shaft		?			
	106	6	Rib		Shaft fragments					
	106	1	Femur	Right	Head and neck	M	Adult	Fem head diam: 51.3mm	Slightly elongated fovea capitis	Coxa valga (>135 degree angulation of fem neck)
	106	1	Femur	Left	Shaft		Adult		Periosteal activity along the linea aspera - slightly disorganised. Localised infection?	Enlarged muscle attachment points along linea aspera
	106	1	Femur	Right	Shaft		Adult			Slight water erosion
	106	1	Femur	Right	Mostly complete		Juvenile (3.5Yo - 4.5Yo)	Total length 225mm		Post depositional break along the midshaft-incomplete.
	106	1	Femur	Right	Partial shaft and distal metaphysis		Juvenile (<14Yo)			Age estimation based on complete non fusion of distal epiphysis. Green (copper alloy) staining present on anterior surface.
	106	1	Tibia	Left	Proximal metaphysis and shaft		Juvenile (<16Yo)			Age estimation based on total non fusion of proximal epiphysis
	106	1	Femur	Right	Greater trochanter and partial neck		Adult			
	106	1	Femur		Partial distal epicondyle		Adult			
	106	1	Tibia	Right?	Proximal epiphysis		Juvenile (<8Yo?)			Age estimation based on development stage of proximal epiphysis
	106	1	Tibia	Left?	Proximal metaphysis and partial shaft		Infant - young juvenile			Age estimation based on development stage of proximal metaphysis. Not able to be refined further.

	106	1	Tibia	Right	Medial condyle of proximal epiphysis		Adult			Quite small
	106	1	Fibula		Shaft and distal metaphysis		Infant - young juvenile			Likely to be 3Yo or younger based on development stage
	106	1	Femur		Small fragment of greater trochanter		Adult			
	106	1	Fibula	Right	Partial shaft and intraosseous crest		Adult			
	106	1	Fibula	Left?	Partial shaft		Adult			
	106	1	Fibula		Partial shaft		Adult			
	106	1	4th Metatarsal	Right	Shaft and proximal base		Adult			
	106	1	2nd or 3rd metacarpal	Right	Shaft and proximal base		Adult			
	106	1	5th proximal hand phalange	Right	Complete		Adult		Very slight eburnation on proximal base, along inferior aspect of articular surface.	
	106	1	Proximal hand phalange (possible 2nd?)	Right	Complete		Adult			
	106	1	Interproximal hand phalange (possibly 2nd)	Right	Complete		Adult			
	106	1	1st Metatarsal	Right	Distal and shaft		Adult			
	106	1	Femur	Right	Shaft		Adult			
	106	1	Talus	Left	Complete		Juvenile			
	106	1	Femur?		Possible fragment of greater trochanter and neck		Adult			
	106	2	Ulna	Left	Mostly complete		Infant- young juvenile			Joining pieces
	106	1	7th Cervical vertebra		Mostly complete		Adult			Missing lateral transverse process. Double transverse foramen on lateral side.
	106	1	Thoracic vertebra		Mostly complete		Juvenile (<8Yo)			Age estimation based on incomplete fusion of the transverse process to the vertebral body

	106	1	Lumbar vertebra		Spinous process and partial transverse process		Adult			
	106	1	Cervical vertebra		Partial lamina and articular facet		Juvenile			
	106	1	Sacrum?		Possible partial dorsal wall		Adult			Quite large
	106	1	Scapula	Left	Glenoid fossa, partial neck and lateral border. Partial spine and acromion.		Adult			
	106	1	Rib	Right	Vertebral end		Adult			
	106	1	Rib	Left	Vertebral end & head		Adult		Slight pitting on articular surface of head	
	106	3	Rib		Shaft fragments		Adult			
	106	1	Tibia?		Proximal metaphysis and shaft		Infant- young juvenile		Pronounced antero-posterior bowing. Possible rickets.	
	106	1	Pars petrosa	Left	Complete		Prenatal (Approximately 30-32 weeks gestation)	Pars petrosa length: 25.8mm; pars petrosa width: 15.2m		
	106	1	Cranial		Parietal		Adult		Markedly thick diploe (12.4mm)	Possible HFI?
	106	1	Cranial	Left	Parietal		Adult			
	106	1	Cranial	Left	Parietal		Adult			Green (copper alloy) staining on ectocranial (superior) surface
	106	1	Cranial		Occipital angle		Adult			
	106	1	Cranial	Right	Parietal - temporal/ mastoid angle		Adult			
	106	1	Cranial	Left	Parietal		Adult			
	106	5	Cranial		Parietal fragments		Adult			
	106	1	Cranial		Occipital	?- M?	Adult			Nuchal crest score 3-4
	106	2	Cranial		Fragments of occipital		Adult			



	106	1	Cranial		Occipital	F?	Adult			Nuchal crest score 1 (but some erosion to endocranial surface)
	105	1	Femur	Right	Shaft		Adult			Slightly pronounced linea aspera - muscle attachment markings
	105	1	Femur	Left	Proximal, lesser trochanter and partial greater trochanter		Adult			
	105	1	Tibia	Right	Partial proximal, tibial plateau		Adult			
	105	1	Tibia	Left	Partial distal		Adult			
	105	2	Fibula		Fragments of shaft		Adult			
	105	1	Femur?		Shaft, partial proximal metaphysis		Juvenile? (<4Yo)			
	105	1	4th Metacarpal	Left	Complete		Adult			
	105	1	3rd or 4th Metatarsal		Shaft and partial distal		Sub-adult?		Tightly woven periosteal new bone along anterior and lateral surface. Non specific infection.	Photographed
	105	1	Metatarsal		Shaft		Adult			
	105	1	Femur		Shaft and partial proximal - nutrient foramen identified		Infant	No measurements possible		
	105	1	Rib	Left	Sternal end		Adult			
	105	1	Rib	Right	Sternal end?		Adult			
	105	1	Rib	Left	Shaft and sternal end		Adult			
	105	1	Rib	Right	Vertebral end		Juvenile			
	105	1	Rib	Right	Fragment of probable vertebral end		Adult			
	105	3	Rib		Fragments of shaft		Adult			
	105	1	Lumbar vertebra		Partial body		Adult			
	105	1	Vertebra		Lamina? Probably thoracic		Adult			

	105	3	Thoracic vertebra (2 upper, 1 lower)		Mostly complete, one upper thoracic is just body part		Juvenile (<8Yo)			Likely younger
	105	1	Clavicle	Left	Complete		Juvenile (7- 9Yo)	Total length: 89.5mm		Age estimation: Using Black and Schuer 1996
	105	1	Clavicle	Left	Mostly complete, missing medial metaphysis		Infant, based on size			
	105	1	Scapula	Right	Mostly complete, broken at lateral border		Juvenile (7- 8Yo)	Length of glenoidal surface: 20.3mm; Middle diameter of glenoidal surface: 15.2mm		Age estimation based on regression equations for glenoid by Rissech and Black
	105	1	Humerus		Shaft		Adult			Slight green copper alloy staining on anterior surface
	105	1	Radius		Shaft		Adult			
	105	7	Cranial	Left and right	Parietal fragments		Adult			
	105	2	Cranial		Frontal fragments		Adult			
	105	1	Rib		Shaft fragment		Adult			
	105	1	Rib		Possible head end?		Adult			
SK01	108	1	Ossified cartilage?		?		?			
SK01	108	1	Talus	Right	Complete		Adult			
SK01	108	1	Talus	Left?	Partial trochlea		Adult			
SK01	108	1	Femur	Left	Distal epicondyles/ epiphysis		Juvenile (<8Yo?)			Age estimation based on development stage
SK01	108	1	Fibula	Left?	Shaft		Adult			
SK01	108	1	Sacrum		First sacral segment, partial		Juvenile			
SK01	108	1	Ulna?	Right?	Shaft and distal metaphysis		Young juvenile			Age based on size and distal metaphysis development stage.
SK01	108	1	Cranial		Sphenoid greater wing		Adult			

SK01	108	1	Metacarpal - possibly 3rd	Left	Distal and partial shaft		Adult		
SK01	108	1	2nd Metatarsal	Left	Distal and shaft		Sub adult		Proximal base fused, distal epiphysis unfused
SK01	108	1	Metatarsal		Shaft		Sub adult		
SK01	108	1	Tooth		ULM2		Sub adult (12.5-14.5Yo)		Cusp of carabelli. Tooth erupted but roots not fully formed. No interproximal facet for M3.
SK01	108	1	Tooth		URI2		Adult?	Tooth broken antemortem but continued to be used (extra wear facet developed on sharper mesial surface). Mild calculus. Caries along CEJ - possibly periodontal disease. Approx 4.6mm of root exposed.	
SK01	108	1	Humerus	Left	Shaft only		Adult		
SK01	108	1	Rib	Right	Head/ vertebral end		Juvenile		
SK01	108	1	Rib	Left	Shaft		Adult		
SK01	108	1	Rib	Left	Sternal end		Adult		
SK01	108	3	Rib		Fragments of shaft		Adult		
SK01	108	1	Rib	Right	Fragment of shaft		Adult		Iron fragment attached to inferior surface
SK01	108	1	Cranial		Parietal		Adult	2 meningiomas c. 4.7mm - 6.2mm in diam	
SK01	108	1	Cranial		Parietal fragment		Adult		
SK01	108	2	Cranial		Fragments of frontal?		Juvenile		
SK01	108	1	Radius	Left	Fragment of distal		Adult		Green copper alloy staining on dorsal tubercle
SK03	113	1	Thoracic vertebra		Body and partial lamina		Juvenile		
SK03	113	1	Cervical vertebra		Spinous process and inferior articular facet		Adult		
SK03	113	11	Rib		Fragments of shaft		Adult		
SK07	115	1	Pars Squama		Occipital, fragment of		Prenatal		

SK07	115	2	Cranial		Cortical flakes					
SK07	115	1	Proximal hand phalange	Right	Complete		Adult		Marginal enthesophyte on lateral border	
SK07	115	2	Fibula		Fragments of shaft		Adult			
SK07	115	1	Thoracic vertebra		Fragments of spinous process		Adult			
SK07	115	1	Rib	Left	Vertebral end		Adult			
	103	1	Cranial	Left	Frontal, roof of orbit.		Adult			
	103	3	Cranial		Fragments of temporal		Adult			
	103	3	Cranial		Fragments of parietal		Adult			
	103	1	Cranial		Small fragments of frontal		Adult			
	103	1	Ulna	Left	Shaft and proximal metaphysis		Young juvenile			
	103	1	Tibia	Right	Fragment of shaft		Adult			
	103	1	Fibula		Fragment of shaft		Adult			
	105	1	Tooth		ULM1		Subadult			Erupted, roots still developing. Interproximal wear facets present.
	105	1	Cranial		Fragment		Adult			
	105	1	Radius?		Shaft and distal metaphysis		Young juvenile			
	105	1	3rd Metacarpal	Left	Complete		Adult			
	105	1	2nd proximal hand phalange	Right	Complete		Adult		Osteophytes along inferior medial and lateral borders	
	105	1	3rd proximal hand phalange	Right	Complete		Adult		Osteophytes along inferior medial and lateral borders. Mild pitting on distal articular surface.	
	101	1	Femur		Small fragment of shaft		Adult			
	101	1	Femur	Right	Small fragment of neck		Adult			
	101	1	Femur	Right	Shaft		Juvenile			
	101	1	Fibula	Right	Fragment of shaft		Adult			
	101	1	Fibula	Left	Fragment of shaft		Adult			

	101	1	Femur		Small fragment of shaft		Adult		
	101	1	Humerus	Left	Distal		Adult		
	101	1	Fibula	Left	Distal		Adult		
	101	1	Os Coxae	Left	Ilium		Young juvenile	Max iliac length: 78.6mm	Slightly older than 3Yo based on iliac length
	101	1	Os Coxae	Right	Ischium		Young juvenile		
	101	1	Thoracic vertebra (lower)		Body		Adult		Large 20mm long lytic lesion on posterior surface - possibly masked by post dep damage.
	101	1	Cranial		Frontal		Infant		
	101	1	Cranial		Parietal		Infant		
	101	1	Cranial		Small fragment of parietal		Adult		
	101	1	Cranial		Small fragment of occipital		Adult		
	101	2	Cranial		Small fragments of parietal		Adult		
	101	1	2nd Metatarsal	Left	Almost complete, missing partial proximal		Adult		
	101	1	4th Metatarsal	Right	Mostly complete		Adult		
	101	1	1st Metatarsal	Left	Complete		Adult		
	101	1	2nd or 3rd proximal hand phalange	Right	Complete		Adult		Osteophytes along inferior medial and lateral border
	101	1	Thoracic vertebra		Partial lamina and superior articular facet		Juvenile		
	101	9	Rib		Fragments of shaft		Adult		
	101	1	Rib	Right	Head		Juvenile		
	101	1	Rib	Right	Shaft		Adult		
	106	1	Fibula	Left	Shaft		Adult		Osteophytes along intraosseous crest
	106	1	Femur	Left	Neck		Adult		
	106	1	Fibula		Small fragment of shaft		Adult		

	106	1	2nd Metacarpal	Right	Mostly complete, broken at distal end		Adult			
	106	1	Hand phalange	Left	Proximal end and shaft		Adult		Osteophytes along inferior medial and lateral border. Small bilateral spur like projection towards proximal	
	106	1	Proximal hand phalange	Right	Complete		Adult		Osteophytes along inferior medial and lateral border.	
	106	1	Hand phalange		Shaft only		Adult		Osteophytes along inferior medial and lateral border.	
	106	1	Tooth	Right	URC		Adult		Tooth broken antemortm on labial enamel surface. Marked calculus above this break. Mild hypercementosis.	
	106	1	Tarsal- Navicular	Right	Complete		Adult		Mild pitting along the distal articular surface	
	106	1	Thoracic vertebra		Complete		Juvenile (6Yo or younger)			Age estimation based on partial fusion with transverse processes
	106	1	Os Coxae	Left	Pubis	M?	Adult			Only subpubic concavity could be assessed. Suchey Brooks pubic symphyseal face phase 5-6 (mean age 45-60)
	106	4	Rib		Fragments of shaft		Adult			
	106	1	Scapula	Right	Glenoid fossa and partial lateral border		Juvenile			
	106	1	Cranial	Left	Pars squama and petrosa		Infant (older than one year)			Age estimation based on fusion of petromastoid and squamotympanic parts
	106	1	Cranial	Right	Petrous part		Adult			
	106	2	Cranial		Frontal and temporal		Juvenile			
	106	2	Cranial	Left and centre	Parietal		Adult			
	106	3	Cranial		Small fragments of temporal		Adult			
	106	4	Cranial		Small fragments of occipital		Adult			
	106	1	Cranial		Small fragment of temporal with		Adult			

					partial petrous part					
	106	1	Cranial	Left	Partial maxilla and zygote fragment		Adult			
	106	1	1st Proximal foot phalanx	?	Shaft?		Adult		Sharp force trauma? Mostly healed transverse cut to the distal head of the toe, angled inferiorly which will have removed the rest of the toe entirely. A small plaque of bone has formed along the distal inferior ridge of the wound, indicating that the foot was still being used.	Photographed
	106	1	Mandible		Complete, though some teeth missing		Juvenile (3-4Yo)			Age estimation based on tooth eruption
	105	1	Cranial		Fragment, possibly temporal		Adult			
U/S	U/S	1	Femur	Left	Shaft		Adult		Possible case of acquired syphilis. Sabre tibia without bowing. Marked medio-lateral bowing defect. Marked periosteal new bone across shaft, which becomes more prominent across the posterior surface. Bone is noticeably thicker in cross section towards the inferior lateral aspect.	Bone from contractor. Photographed. See also row 409
U/S	U/S	1	Patella	Left	Complete		Adult		Osteophytes along margin of articular surface	Bone from contractor.
U/S	U/S	1	Patella	Right	Complete		Adult		Osteophytes along margin of articular surface	Bone from contractor.
U/S	U/S	1	Rib	Right	Head end		Adult			Bone from contractor.
U/S	U/S	3	Rib		Fragments of shaft		Adult			Bone from contractor.
U/S	U/S	1	3rd Metacarpal	Left	Complete		Adult		Enthesophyte on inferior surface	Bone from contractor.
U/S	U/S	1	Proximal hand phalanx	Left	Mostly complete		Adult		Osteophytes along medial and lateral border	Bone from contractor.
U/S	U/S	1	Proximal hand phalanx	Left	Complete		Adult		Osteophytes along medial and lateral border	Bone from contractor.
U/S	U/S	1	5th Metacarpal	Right	Complete		Adult			Bone from contractor.
U/S	U/S	1	Metacarpal		Shaft and partial proximal		Adult			Bone from contractor.



U/S	U/S	1	Sacrum		1st sacral segment		Adult		OA. Eburnation on the superior most aspect of the medial superior auricular facet. Marginal osteophytes/ lipping along the margins of both facets, mild pitting on the articular facet and slight alteration of the joint contour.	Bone from contractor. Photographed. ** = same individual as below
U/S	U/S	1	Sacrum		Dorsal wall & median crest		Adult			Bone from contractor. ** = Same individual
U/S	U/S	1	Sacrum	Right	Sacroillic joint		Adult (50+)		Marked destruction of auricular surface. No transverse organisation, macroporosity present with irregular surface	Bone from contractor. and Lovejoy auricular surface score: Phase 7-8. ** = Same individual
U/S	U/S	1	Sacrum		Sacrum?		Adult		OA. Marked macroporosity, lipping of bone along the joint margins & irregular organisation or bone along the articular surface.	Bone from contractor. ** = Same individual
U/S	U/S	1	Lumbar vertebra		L5		Adult		OA. Eburnation on superior surface of inferior and superior articular facet- medial side. Marked lipping along margins of all facets. Eburnation only present of medial aspect of vertebral/ sacral bones assessed.	Bone from contractor. ** = Same individual - articulates with 1st sacrum segment
U/S	U/S	1	Thoracic vertebra		Body and lamina, missing transverse processes		Adult			Bone from contractor.
U/S	U/S	2	Vertebra (possibly lower thoracic)		Body		Adult		Possible schmorls node? Masked by post-dep damage	Bone from contractor. Joining pieces
U/S	U/S	1	Os Coxae	Right	Partial acetabulum and Ilium		Adult		Woven bone within acetabular fossa	Bone from contractor
U/S	U/S	1	Os Coxae	Right?	Partial iliac blade, partial auricular surface		Adult		Woven (furry?) bone along superior surface of posterior superior iliac spine	Bone from contractor.
U/S	U/S	1	Cranial	Left	Pars squama and petrosa		Juvenile			Bone from contractor.
U/S	U/S	1	Cranial	Right	Pars squama and petrosa		Juvenile			Bone from contractor.
U/S	U/S	3	Cranial		Fragments of parietal		Juvenile			Bone from contractor.
U/S	U/S	2	Cranial		Fragments of parietal		Adult			Bone from contractor.

U/S	U/S	1	Pars petrosa	Right	Complete		Prenatal: 36 weeks gestation	Maximum petrosa length: 31.2mm; maximum petrosa width 16.8mm		Bone from contractor.
U/S	U/S	1	Scapula	Right	Complete		Newborn. Approximately 40 weeks	Scapular length: 36mm; scapular width: 30mm; spine length: 33mm; infra scapular height: 30.4mm; supra scapular height: 14.8mm; length of glenoidal mass: 12.8mm		Bone from contractor.
U/S	U/S	1	Scapula	Left	Body and glenoid mass		Newborn. Approximately 40 weeks			Bone from contractor.
U/S	U/S	2	Cranial		Frontal, including left and right orbits		Newborn based on size			Bone from contractor. Joining pieces
U/S	U/S	1	Cranial		Occipital, pars squama		Newborn based on size			Bone from contractor.
U/S	U/S	1	Cranial	Right	Temporal		Newborn based on size			Bone from contractor.
U/S	U/S	1	Cranial		Fragment of parietal		Newborn/infant			Bone from contractor.
U/S	U/S	1	Os Coxae	Right	Pubis, including pubic symphysis		Young juvenile			Bone from contractor.
U/S	U/S	1	Femur	Left	Complete		Prenatal - newborn (approximately 38-40 weeks)	Max length: 70.5mm		Bone from contractor.
U/S	U/S	1	Tibia	Right	Complete		Prenatal - newborn (approximately 38-40 weeks)	Max length: 61.9mm		Bone from contractor.
U/S	U/S	1	Tibia	Left	Complete		Prenatal - newborn (approximately 38-40 weeks)	Max length: 61.6mm		Bone from contractor.
U/S	U/S	1	Humerus	Right	Distal and shaft		Prenatal - newborn (approximately 38-40 weeks)			Bone from contractor. Prenatal - newborn bone likely to be the remains of a single individual.
U/S	U/S	1	Scapula	Left	Spine and partial body		Infant			Bone from contractor.

U/S	U/S	1	Cranium		Most of right half. Post dep break across right parietal. Missing maxilla.	M	Adult			Bone from contractor. Supraorbital margin score: 4; Glabella score: 5
U/S	U/S	1	Cranial	Right	Parietal, mostly complete		Adult			Bone from contractor.
U/S	U/S	1	Cranial		Maxilla		Adult 25-35Yo		UPM3 lost antemortem- alveolar remodelling incomplete. Age estimation based on tooth wear by Brothwell 1964.	Bone from contractor.
U/S	U/S	1	Mandible		Complete		Juvenile, approx 2.5Yo		Slight lateral twist malocclusion of both lower I1's.	Bone from contractor. Green copper alloy staining on anterior surface of mandible, below incisors.
U/S	U/S	1	Cranial		Fragment of ethmoid		Adult			Bone from contractor.
U/S	U/S	2	Cranial		Small fragments of parietal		Adult			Bone from contractor.
U/S	U/S	1	Femur	Right	Head and partial neck	F?	Adult	Fem head diam: 46.1mm	Osteophytes along fovea capitis	Bone from contractor.
U/S	U/S	1	Humerus	Right	Distal	F?	Adult		Septal aperture	Bone from contractor.
U/S	U/S	1	2nd Metacarpal	Right	Complete		Adult			Bone from contractor.
U/S	U/S	1	1st Metacarpal	Right	Complete		Adult		Slight eburnation on the inferior surface of the distal articular facet	Bone from contractor.
U/S	U/S	1	Femur	Left	Complete	M	Adult	Fem head diam: 49.6mm; Maximum length: 484mm		Bone from contractor. Stature: 176.6cm
U/S	U/S	1	Femur	Left	Complete	F?	Adult	Fem head diam: 44.5mm; Maximum length: 430mm		Bone from contractor. Stature: 160.95cm
U/S	U/S	1	Femur	Right	Distal and shaft		Adult			Bone from contractor.
U/S	U/S	1	Tibia	Right	Proximal and shaft		Adult		Bone spurs along ligament insertion point - tibial tuberosity	Bone from contractor.
U/S	U/S	1	Humerus	Left	Complete	?	Adult	Head diam: 45.1mm; Distal epi width: 64.3mm		Bone from contractor.
U/S	U/S	1	Radius	Right	Mostly complete, distal epi broken	?	Adult	Head diam: 22.6mm	Bone spur on interosseous crest	Bone from contractor.

U/S	U/S	1	Femur		Shaft		Adult			Bone from contractor.
U/S	U/S	1	Lumbar vertebra		Body and partial lamina		Adult		Mild marginal osteophytes present on inferior articular facets	Bone from contractor.
U/S	U/S	1	Tibia		Shaft		Adult			Bone from contractor.
U/S	U/S	1	Cranial		Small fragment of frontal		Adult			Bone from contractor.
U/S	U/S	1	Cranial	Left	Roof of orbit, partial frontal, partial frontal sinus		Adult			Bone from contractor.
U/S	U/S	2	Scapula	Left	Partial body, lateral border genoidal mass, partial spine superior border and arm for coracoid process		Young infant <6mths			Bone from contractor. Joining fragments
U/S	U/S	1	Cranial	Right, partial left	Parietal, towards occipital boarder		Adult			Bone from contractor.
U/S	U/S	1	Cranial	Left	Parietal		Adult			Bone from contractor.
U/S	U/S	1	Cranial		Occipital		Juvenile?			Bone from contractor. Occipital bun
U/S	U/S	1	Cranial		Frontal. Complete rim of left orbit, partial right	F	Adult			Bone from contractor.
U/S	U/S	1	Os Coxae	Right	Ilium, sacroiliac joint, partial acetabulum	F	Adult (60+)		Marked activity on and around the auricular and retroauricular surface. Irregular globule like areas of bone growth, profuse osteophytes and areas of lipping along the margin of the articular surface. Appearance of porous, slightly "furry" bone around iliac tuberosity.	Bone from contractor. [Possibly same individual as OA affected sacrum] photographed.
U/S	U/S	1	Femur	Right	Shaft and distal		Adult			Bone from contractor. Green copper alloy staining on posterior surface.
SK03		1	Cervical vertebra		Odontoid peg of atlas (C2)		Adult		OA. Joint contour alteration/flattening of superior-anterior surface of dens. Appears slightly scored with mild pitting on articular face. No eburnation.	Associated with SK03, unclear if fragment belongs to skeleton.

									Marked patch of porous/ pitting on right superior articular facet (articulating with C1)	
U/S	U/S	1	Pars petrosa	Left	Complete		Prenatal? Approximately 40 weeks	Pars pet length: 37.1mm; pars pet width: 16.4mm		Bone from contractor.
U/S	U/S	1	Cranial	Right	Sphenoid greater wing		Perinatal			Bone from contractor.
U/S	U/S	9	Cranial		Fragments of parietal and temporal		Perinatal			Bone from contractor.
U/S	U/S	1	Cranial		Occipital - Pars squama		Perinatal, very likely prenatal			Bone from contractor.
U/S	U/S	1	Cranial		Small fragment of orbit		Adult			Bone from contractor.
U/S	U/S	1	Cranial		Sphenoid - pterygoid plates, partial spine		Adult			Bone from contractor.
U/S	U/S	1	Ulna	Left	Proximal metaphysis and shaft		Perinatal, very likely prenatal	No measurements possible		Bone from contractor.
U/S	U/S	1	Radius?	Left?	Partial shaft and distal metaphysis (damaged)		Perinatal, very likely prenatal	No measurements possible		Bone from contractor.
U/S	U/S	1	Rib		Sternal end, partial shaft		Young infant			Bone from contractor.
U/S	U/S	1	Zygomatic	Left	Complete		Perinatal 38- 40 weeks	Length: 25.1mm; oblique height: 21.2mm		Bone from contractor.
U/S	U/S	1	Tarsal	Right	Lunate, complete		Adult			Bone from contractor.
U/S	U/S	1	Vertebra		Lamina, partial articular facet		Adult			Bone from contractor.
U/S	U/S	1	Cranial		Small fragment of temporal		Adult			Bone from contractor.
U/S	U/S	1	Cranial		Small fragment of sphenoidal sinus?		Adult			Bone from contractor.
U/S	U/S	1	Rib	Left	Head end		Adult			Bone from contractor.
U/S	U/S	1	Rib	Right	Head end		Adult			Bone from contractor.
U/S	U/S	6	Rib		Fragments of shaft		Adult			Bone from contractor.
U/S	U/S	2	Tibia	Left	Proximal, fragment of shaft		Adult		Possible case of acquired syphilis. Marked PNB (periosteal new bone) on anterior surface.	Bone from contractor. Photographed - joins with other fragment (row 327)

									Appearance of sabre tibia without bowing.	
U/S	U/S	1	Tibia	Right	Partial proximal		Adult			Bone from contractor
U/S	U/S	1	Talus	Right	Mostly complete		Adult		Marginal osteophytes along inferior margins. Unusual scoring along groove for flexor hallucis longis.	Bone from contractor
U/S	U/S	1	Os Coxae	Right	Partial ischium		Adult			Bone from contractor
U/S	U/S	1	1st Metatarsal	Right?	Partial inferior portion, very fragmented.		Adult		Large osteophyte on plantar flexor	Bone from contractor
U/S	U/S	2	Os Coxae		Fragments of iliac blade		Adult			Bone from contractor
U/S	U/S	1	Fibula	Left	Shaft		Adult			Bone from contractor
U/S	U/S	1	2nd Metacarpal	Right	Complete		Adult			Bone from contractor
U/S	U/S	1	3rd Metacarpal	Right	Complete		Adult			Bone from contractor
U/S	U/S	1	Femur	Left	Partial shaft		Adult			Bone from contractor
U/S	U/S	4	Fibula		Fragments of shaft		Adult			Bone from contractor
U/S	U/S	1	Ulna	Right	Proximal and shaft		Adult		Mild PNB on brachial tuberosity	Bone from contractor
U/S	U/S	1	Femur	Left	Proximal epiphysis (unfused)		Juvenile (slightly older than 8 years)			Bone from contractor. Age estimation based on development stage of proximal epiphysis
U/S	U/S	2	Cranial		Fragments of frontal and frontal sinus		Adult			Bone from contractor
U/S	U/S	2	Cranial		Fragments of parietal		Adult		Meningioma	Bone from contractor
U/S	U/S	1	Cranial		Fragment of occipital, partial cruciform eminence		Adult			Bone from contractor
U/S	U/S	1	Metacarpal		Damaged shaft and partial head		Adult			Bone from contractor
U/S	U/S	1	Rib		Fragment of shaft		Adult			Bone from contractor
U/S	U/S	1	Mandible	Left	Complete		Perinatal 38-40 weeks	Body length: 34.5mm; Oblique length: 46.8mm		Bone from contractor

U/S	U/S	1	Humerus	Left	Complete		Perinatal? Approx 38 weeks	Max length: 61.9mm		Bone from contractor
U/S	U/S	1	Humerus	Left?	Distal		Young infant <6mths			Bone from contractor
U/S	U/S	1	Rib	Right	Head and shaft		Juvenile			Bone from contractor
U/S	U/S	1	Rib	Left	Complete		Young infant, very likely perinatal			Bone from contractor
U/S	U/S	1	Rib	Right	Mostly complete		Young infant, very likely perinatal			Bone from contractor
U/S	U/S	1	Rib	Left	Head and shaft		Young infant, very likely perinatal			Bone from contractor
U/S	U/S	1	Os Coxae	Right	Ilium, iliac blade broken		Young juvenile	No measurements possible		Bone from contractor
U/S	U/S	1	Cranial	Left	Sphenoid greater wing		Infant <1year	Greater wing width: 29.8mm		Bone from contractor
U/S	U/S	1	Vertebra, probably cervical		Neural arch		Infant <1year			Bone from contractor
U/S	U/S	1	Cranial		Small fragment		Infant			Bone from contractor
U/S	U/S	1	Tibia	Left	Proximal metaphysis and shaft		Young juvenile			Bone from contractor
U/S	U/S	1	Femur?	Left	Shaft		Young juvenile			Bone from contractor
U/S	U/S	1	Fibula		Small fragment of shaft		Adult			Bone from contractor
U/S	U/S	1	Femur	Right	Shaft, partial proximal		Adult		Marked PNB along anterior and lateral aspect of subcutaneous surface	Bone from contractor
U/S	U/S	1	Humerus	Right	Distal		Adult	Distal epi width: 63mm		Bone from contractor
U/S	U/S	1	os coxae	Left	Partial ilium and acetabulum		Adult		Marginal osteophytes around inferior surface of acetabulum. PNB activity on anterior surface	Bone from contractor
U/S	U/S	1	Cranial	Right	Temporal and zygot	M?	Adult			Bone from contractor. Green copper alloy staining on temporo- sphenoidal suture, ectocranial surface. Mastoid score 3-4. Photographed



U/S	U/S	1	Cranial	Left	Temporal and zygote	M?	Adult			Bone from contractor. Green copper alloy staining above external auditory meatus. Mastoid score 3-4. Photographed
U/S	U/S	2	Cranial		Occipital	M	Adult			Bone from contractor. Nuchal crest score: 4. Joining fragments
U/S	U/S	1	Ulna	Right	Proximal and shaft		Adult			Bone from contractor. Badly weathered
U/S	U/S	1	Cranial		Occipital		Adult			Bone from contractor
U/S	U/S	1	Cranial		Occipital		Adult			Bone from contractor
U/S	U/S	1	Cranial		Occipital condyle, partial BOBSS	M	Adult			Bone from contractor. Double condylar facets
U/S	U/S	1	Cranial		Occipital		Adult			Bone from contractor
U/S	U/S	1	Cranial		Occipital, pars squama		Infant			Bone from contractor
U/S	U/S	1	Cranial	Right	Temporal		Adult			Bone from contractor
U/S	U/S	1	Cranial		Fragment of temporal		Adult			Bone from contractor
U/S	U/S	1	Cranial		Frontal, partial sinus		Adult			Bone from contractor
U/S	U/S	1	Cranial		Partial frontal		Adult			Bone from contractor
U/S	U/S	1	Tibia	Left	Shaft, partial proximal		Juvenile			Bone from contractor
U/S	U/S	1	Fibula	Right	Distal		Adult			Bone from contractor
U/S	U/S	1	Tibia	Right	Distal		Adult			Bone from contractor
U/S	U/S	1	Os coxae	Left	Ischium		Juvenile >1Year			Bone from contractor
U/S	U/S	1	Fibula	Left	Shaft		Adult			Bone from contractor
U/S	U/S	1	Os coxae	Left	Small fragment of pubis		Adult			Bone from contractor
U/S	U/S	1	Cranial	Left	Zygomatic		Juvenile			Bone from contractor
U/S	U/S	1	Rib	Right	Shaft		Adult			Bone from contractor
U/S	U/S	6	Tibia		Fragments of shaft		Adult			Bone from contractor
U/S	U/S	1	Fibula	Left	Shaft		Adult			Bone from contractor
U/S	U/S	1	Rib	Right	Fragment of shaft		Adult			Bone from contractor

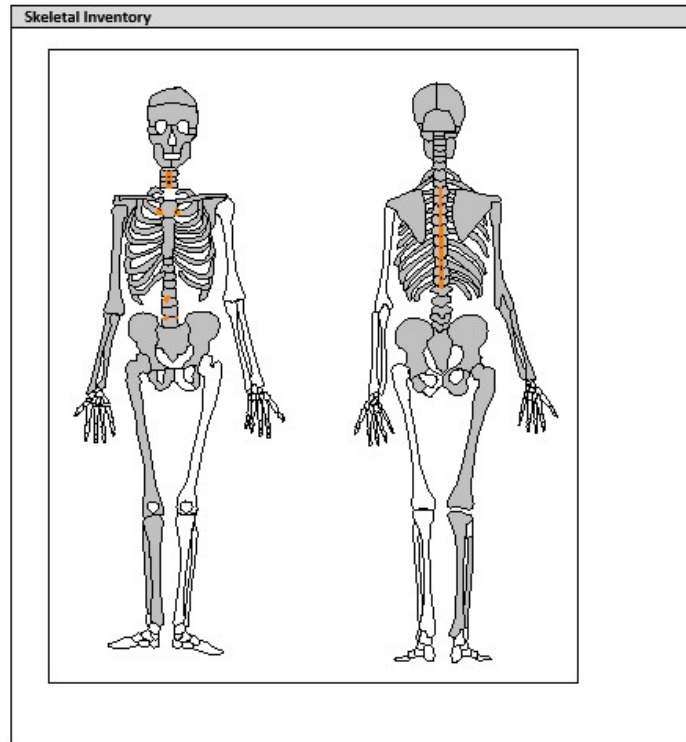
U/S	U/S	1	Rib	Left	Head end		Infant			Bone from contractor
	105	1	Femur	Left	Mostly complete	F	Adult	Fem head: 43.3mm; Max length: 443mm		Stature: 162.18cm
	101	1	Humerus	Left	Shaft		Adult			
	101	1	Humerus	Left?	Shaft		Adult			
	101	1	1st rib	Left	Shaft		Adult			Slight green staining on superior surface
	101	1	Thoracic vertebra		Body		Adult			
	101	1	Thoracic vertebra		Body		Adult		Compression fracture on distal margin - wedge/crush type Grade 2-3	Photographed
	101	1	Thoracic vertebra		Partial body/ lamina		Adult		Schmorls node on inferior surface	
	101	1	Mandible	Right	Partial body/ masseteric tuberosity		Adult		Teeth lost antemortem. Alveolar remodelling incomplete.	
	101	1	Rib	Right	Head end		Adult			
	101	1	Thoracic vertebra		Lamina		Young juvenile >1Year			Based on fusion of the neural arches
	101	1	Tooth	Left	LLP3		Adult		Marked tooth wear. Mild calculus. Mesial interproximal caries.	
	101	1	Thoracic vertebra		Spinous process		Adult			
	101	1	Rib		Head end		Adult			
	101	1	Rib		Sternal end, shaft		Juvenile			
	101	1	Maxilla		Nasal/alveolar area		Adult			
	101	1	Rib	Right	Shaft		Adult			
	101	1	Cranial		Occipital, pars squama		Infant			
	101	1	Cranial		Frontal sulcus		Adult			
	101	1	Cranial		Fragment of parietal		Adult?		Marked PNB on endocranial surface. Porous with areas with possible gummatous activity.	
	101	1	Cranial		Occipital fragment		Adult			
	101	1	Cranial	Right	Temporal fragment		Adult			

	101	8	Cranial		Parietal and temporal fragments		Adult			
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### Appendix 3: Inventory of Articulated burials

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Site Code	CNN	Orientation	E-W
Skeleton No.	SK01	Disturbance	Y
Area/Context Number	[107] (108)	Associated finds	Clay pipe, CBM, glass, intrusive bone
Condition	Good	Sex	Male
Completeness	70-75%	Age	45+
Body Position	Supine	Stature average (cm)	178.5cm



Adult Age	
Epiphyseal fusion	Clavicle fused (25+)
Dental eruption and development	Complete (18+)
Dental attrition	Grade 4 (45+)
Pubic symphyses	Phase 5 (27-56)
Cranial suture closure	N/A
Ilium auricular surface	Phase 6-7 (45-59)

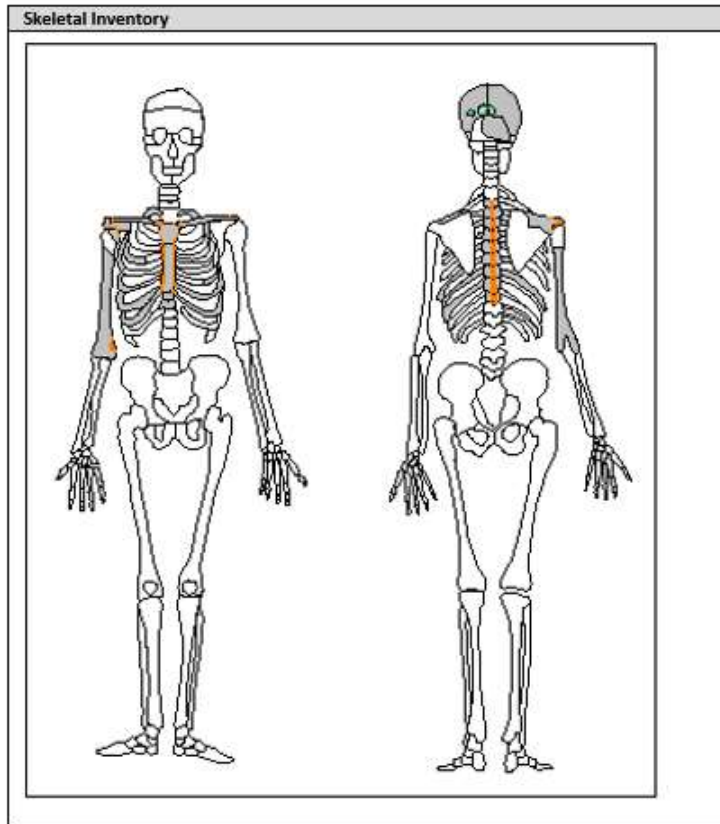
KEY	
	Present
	Absent
	Areas showing pathological change



Dental Inventory																	
Dental hypoplasia	X	X	X	L	/	/	/			/	/	/	/	X	X	X	P=Pit, L=Line, G=Groove
Periodontal Disease	X	X	X	C	/	/	/	C	C	/	/	/	/	X	X	X	S=Slight, M=Medium, C=Considerable, X=Jaw not present
Calculus	X	X	X	L	/	/	/			/	/	/	/	X	X	X	O=Occlusal, B=Labial, L=Lingual, M=Mesial, D=Distal, A=All/S=Slight, X=Medium, C=Considerable
Abscesses	X	X	X		/	/	/			/	/	/	/	X	X	X	B=Buccal, L=Lingual
Caries	X	X	X	C	/	/	/	L	M/D	/	/	/	/	X	X	X	O=Occlusal, M=Mesial, D=Distal, B=Labial, L=Lingual, G=gross, C= CEJ
Maxillary teeth	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	X=Lost ante-mortem, /=lost post-mortem, B=Broken, V=Unerupted, O=Erupting, NP=Undeveloped
Mandibular teeth	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	X=Lost ante-mortem, /=lost post-mortem, B=Broken, V=Unerupted, O=Erupting, NP=Undeveloped
Caries	X	X	G	X		D	D	X	X	M		C	C	X	X	X	O=Occlusal, M=Mesial, D=Distal, B=Labial, L=Lingual, G=gross, C= CEJ
Abscesses	X	X		X				X	X					X	X	X	B=Buccal, L=Lingual
Calculus	X	X	B	X	L	L	L	X	X			L	B/M	X	X	X	O=Occlusal, B=Labial, L=Lingual, M=Mesial, D=Distal, A=All/S=Slight, X=Medium, C=Considerable
Periodontal Disease	X	X	C	X	C	C	C	X	X	C	X	C	C	X	X	X	S=Slight, M=Medium, C=Considerable, X=Jaw not present
Dental Hypoplasia	X	X	L	X	L/P	L		X	X					X	X	X	P=Pit, L=Line, G=Groove

Sex (F = Female, M = Male, I = Indeterminate)			
<b>Skull:</b>		<b>Pelvis:</b>	
Supraorbital ridges	?	Sciatic notch	M
Mastoid processes	M? – M	Subpubic angle	M
Posterior zygomatic arch		Subpubic concavity	M
Nuchal crest	M?	Ischio-pubic ramus	M
Anterior mandible	M?	Ventral arch	M
Orbital rims	M?	Preauricular sulcus	Not present
<b>Metrical data:</b>		Obturator foramen	M
Femoral head diameter	48.3mm (M)	Pelvic brim	N/A
Femoral bicondylar width	82.2mm (M)	Acetabulum	N/A
Humeral head diameter	45.2mm (M?)	Segment morphology of the sacrum	N/A
Radial head diameter	22.7mm (?)		
Scapula glenoid cavity width	30.4mm (M)		
Clavicle maximum length	143.7mm (?)		

Site Code	CNN	Orientation	E-W
Skeleton No.	SK02	Disturbance	Y
Area/Context Number	[109]/ (110)	Associated finds	Clay pipe, glass, CBM
Condition	Poor-moderate	Sex	Male?
Completeness	20-25%	Age	Middle-Older adult
Body Position	Supine	Stature average (cm)	N/A



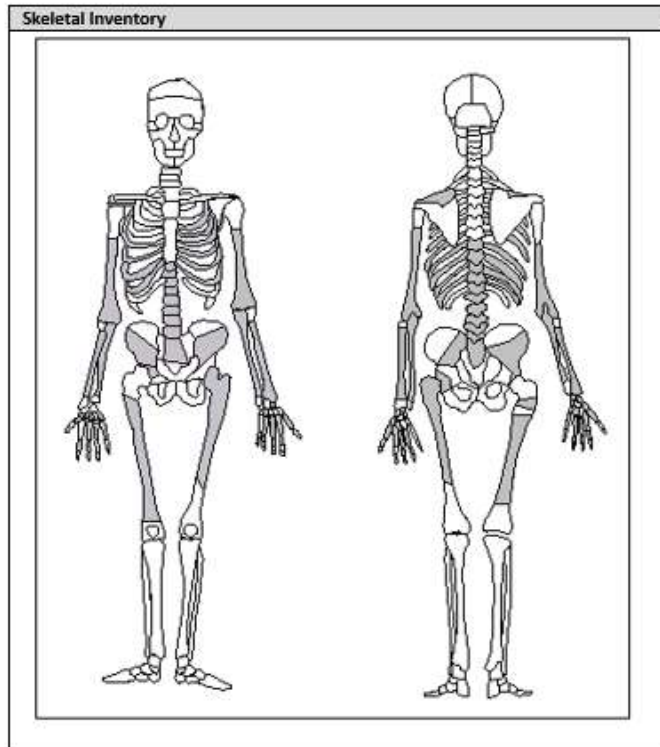
Adult Age	
Epiphyseal fusion	Clavicle fusion (25+)
Dental eruption and development	N/A
Dental attrition	N/A
Pubic symphyses	N/A
Cranial suture closure	N/A
Ilium auricular surface	N/A

KEY	
	Present
	Absent
	Areas showing pathological change
	Copper alloy staining
	Hair

Dental Inventory																	
Dental hypoplasia																	P=Pit, L=Line, G=Groove
Periodontal Disease																	S=Slight, M=Medium, C=Considerable, X=Jaw not present
Calculus																	O=Occlusal, B=Labial, L=Lingual, M=Mesial, D=Distal, A=All/S=Slight, X=Medium, C=Considerable
Abscesses																	B=Buccal, L=Lingual
Caries																	O=Occlusal, M=Mesial, D=Distal, B=Labial, L=Lingual, G=gross, C= CEJ
<b>Maxillary teeth</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	X=Lost ante-mortem, /=lost post-mortem, B=Broken, V=Unerupted, O=Erupting, NP=Undeveloped
<b>Mandibular teeth</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	X=Lost ante-mortem, /=lost post-mortem, B=Broken, V=Unerupted, O=Erupting, NP=Undeveloped
Caries																	O=Occlusal, M=Mesial, D=Distal, B=Labial, L=Lingual, G=gross, C= CEJ
Abscesses																	B=Buccal, L=Lingual
Calculus																	O=Occlusal, B=Labial, L=Lingual, M=Mesial, D=Distal, A=All/S=Slight, X=Medium, C=Considerable
Periodontal Disease																	S=Slight, M=Medium, C=Considerable, X=Jaw not present
Dental Hypoplasia																	P=Pit, L=Line, G=Groove

Sex (F = Female, M = Male, I = Indeterminate)			
<b>Skull:</b>		<b>Pelvis:</b>	
Supraorbital ridges	N/A	Sciatic notch	N/A
Mastoid processes	N/A	Subpubic angle	N/A
Posterior zygomatic arch	N/A	Subpubic concavity	N/A
Nuchal crest	M	Ischio-pubic ramus	N/A
Anterior mandible	N/A	Ventral arch	N/A
Orbital rims	N/A	Preauricular sulcus	N/A
<b>Metrical data:</b>		Obturator foramen	N/A
Femoral head diameter	N/A	Pelvic brim	N/A
Femoral bicondylar width	N/A	Acetabulum	N/A
Humeral head diameter	N/A	Segment morphology of the sacrum	N/A
Radial head diameter	N/A		
Scapula glenoid cavity width	30mm (M)		
Clavicle maximum length	150mm (M)		

Site Code	CNN	Orientation	E-W
Skeleton No.	SK03	Disturbance	To head and lower limbs
Area/Context Number	[112]	Associated finds	Intrusive bone, iron, possible coffin plate
Condition	Poor	Sex	Female
Completeness	45-50%	Age	30-39
Body Position	Supine, hands over pelvis	Stature average (cm)	-



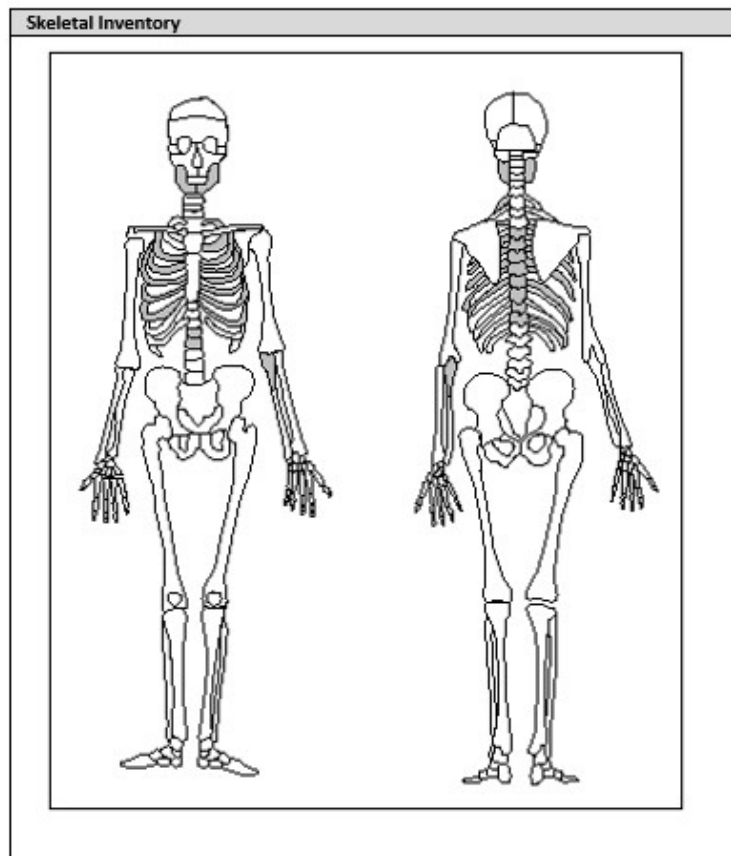
Adult Age	
Epiphyseal fusion	-
Dental eruption and development	-
Dental attrition	-
Pubic symphyses	-
Cranial suture closure	-
Ilium auricular surface	Phase 3-4

KEY	
	Present
	Absent

Dental Inventory																	
Dental hypoplasia																P=Pit, L=Line, G=Groove	
Periodontal Disease																S=Slight, M=Medium, C=Considerable, X=Jaw not present	
Calculus																O=Occlusal, B=Labial, L=Lingual, M=Mesial, D=Distal, A=All/S=Slight, X=Medium, C=Considerable	
Abscesses																B=Buccal, L=Lingual	
Caries																O=Occlusal, M=Mesial, D=Distal, B=Labial, L=Lingual, G=gross, C= CEJ	
<b>Maxillary teeth</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	X=Lost ante-mortem, /=lost post-mortem, B=Broken, V=Unerupted, O=Erupting, NP=Undeveloped
<b>Mandibular teeth</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	X=Lost ante-mortem, /=lost post-mortem, B=Broken, V=Unerupted, O=Erupting, NP=Undeveloped
Caries																	O=Occlusal, M=Mesial, D=Distal, B=Labial, L=Lingual, G=gross, C= CEJ
Abscesses																	B=Buccal, L=Lingual
Calculus																	O=Occlusal, B=Labial, L=Lingual, M=Mesial, D=Distal, A=All/S=Slight, X=Medium, C=Considerable
Periodontal Disease																	S=Slight, M=Medium, C=Considerable, X=Jaw not present
Dental Hypoplasia																	P=Pit, L=Line, G=Groove

Sex (F = Female, M = Male, I = Indeterminate)			
<b>Skull:</b>		<b>Pelvis:</b>	
Supraorbital ridges	-	Sciatic notch	F
Mastoid processes	-	Subpubic angle	-
Posterior zygomatic arch	-	Subpubic concavity	-
Nuchal crest	-	Ischio-pubic ramus	-
Anterior mandible	-	Ventral arch	-
Orbital rims	-	Preauricular sulcus	F
<b>Metrical data:</b>		Obturator foramen	-
Femoral head diameter	45.6mm	Arc Compose	F
Femoral bicondylar width	-	Acetabulum	N/A
Humeral head diameter	-	Segment morphology of the sacrum	-
Radial head diameter	-		
Scapula glenoid cavity width	-		
Clavicle maximum length	-		

Site Code	CNN	Orientation	E-W
Skeleton No.	SK04	Disturbance	Y
Area/Context Number	(105)	Associated finds	-
Condition	Moderate	Sex	-
Completeness	>20%	Age	6-7 Years
Body Position	Supine	Stature average (cm)	-



Juvenile Age	
Epiphyseal fusion	<11 Years
Dental development	6 ± 2 Years
Post-cranial measurements:	N/A
Humerus length	
Radius length	
Ulna length	
Femur length	
Tibia length	
Fibula length	
Ilium width	

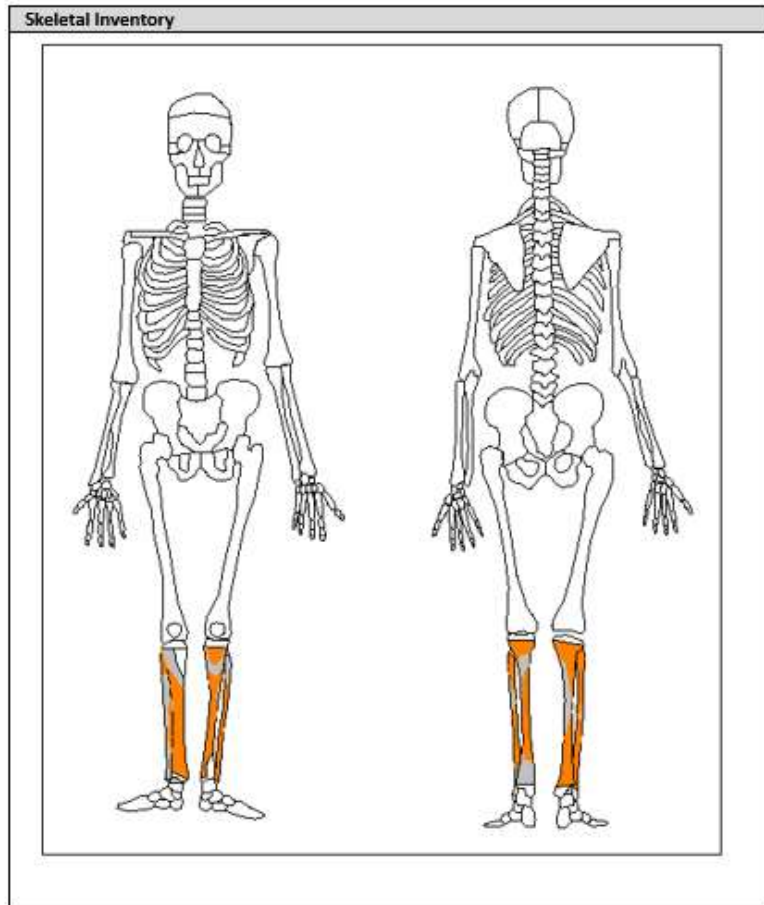
KEY	
	Present
	Absent



Dental Inventory																	
Dental hypoplasia																P=Pit, L=Line, G=Groove	
Periodontal Disease																S=Slight, M=Medium, C=Considerable, X=Jaw not present	
Calculus																O=Occlusal, B=Labial, L=Lingual, M=Mesial, D=Distal, A=All/S=Slight, X=Medium, C=Considerable	
Abscesses																B=Buccal, L=Lingual	
Caries																O=Occlusal, M=Mesial, D=Distal, B=Labial, L=Lingual, G=gross, C= CEJ	
Maxillary teeth	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	X=Lost ante-mortem, /=lost post-mortem, B=Broken, V=Unerupted, O=Erupting, NP=Undeveloped
Mandibular teeth	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	X=Lost ante-mortem, /=lost post-mortem, B=Broken, V=Unerupted, O=Erupting, NP=Undeveloped
Caries																	O=Occlusal, M=Mesial, D=Distal, B=Labial, L=Lingual, G=gross, C= CEJ
Abscesses																	B=Buccal, L=Lingual
Calculus																	O=Occlusal, B=Labial, L=Lingual, M=Mesial, D=Distal, A=All/S=Slight, X=Medium, C=Considerable
Periodontal Disease																	S=Slight, M=Medium, C=Considerable, X=Jaw not present
Dental Hypoplasia																	P=Pit, L=Line, G=Groove

Sex (F = Female, M = Male, I = Indeterminate)			
<b>Skull:</b>	N/A	<b>Pelvis:</b>	N/A
Supraorbital ridges	N/A	Sciatic notch	N/A
Mastoid processes	N/A	Subpubic angle	N/A
Posterior zygomatic arch	N/A	Subpubic concavity	N/A
Nuchal crest	N/A	Ischio-pubic ramus	N/A
Anterior mandible	N/A	Ventral arch	N/A
Orbital rims	N/A	Preauricular sulcus	N/A
<b>Metrical data:</b>	N/A	Obturator foramen	N/A
Femoral head diameter	N/A	Pelvic brim	N/A
Femoral bicondylar width	N/A	Acetabulum	N/A
Humeral head diameter	N/A	Segment morphology of the sacrum	N/A
Radial head diameter	N/A		
Scapula glenoid cavity width	N/A		
Clavicle maximum length	N/A		

Site Code	CNN	Orientation	E-W
Skeleton No.	SK05	Disturbance	Y
Area/Context Number	(105)	Associated finds	-
Condition	Moderate	Sex	-
Completeness	<10%	Age	5-7 Years
Body Position	Supine	Stature average (cm)	-



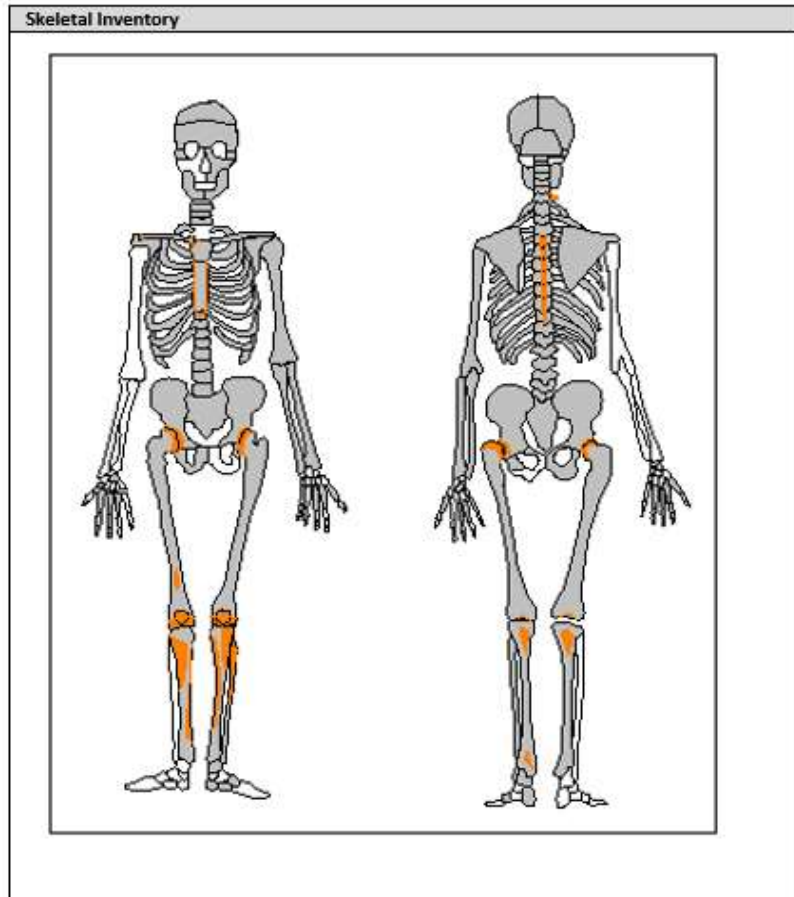
Juvenile Age	
Epiphyseal fusion	-
Dental development	N/A
Post-cranial measurements:	
Humerus length	-
Radius length	-
Ulna length	-
Femur length	-
Tibia length	223mm
Fibula length	222mm
Ilium width	-

KEY	
	Present
	Absent
	Areas showing pathological change

Dental Inventory																	
Dental hypoplasia																	P=Pit, L=Line, G=Groove
Periodontal Disease																	S=Slight, M=Medium, C=Considerable, X=Jaw not present
Calculus																	O=Occlusal, B=Labial, L=Lingual, M=Mesial, D=Distal, A=All/S=Slight, X=Medium, C=Considerable
Abscesses																	B=Buccal, L=Lingual
Caries																	O=Occlusal, M=Mesial, D=Distal, B=Labial, L=Lingual, G=gross, C= CEJ
<b>Maxillary teeth</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	X=Lost ante-mortem, /=lost post-mortem, B=Broken, V=Unerupted, O=Erupting, NP=Undeveloped
<b>Mandibular teeth</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	X=Lost ante-mortem, /=lost post-mortem, B=Broken, V=Unerupted, O=Erupting, NP=Undeveloped
Caries																	O=Occlusal, M=Mesial, D=Distal, B=Labial, L=Lingual, G=gross, C= CEJ
Abscesses																	B=Buccal, L=Lingual
Calculus																	O=Occlusal, B=Labial, L=Lingual, M=Mesial, D=Distal, A=All/S=Slight, X=Medium, C=Considerable
Periodontal Disease																	S=Slight, M=Medium, C=Considerable, X=Jaw not present
Dental Hypoplasia																	P=Pit, L=Line, G=Groove

Sex (F = Female, M = Male, I = Indeterminate)			
<b>Skull:</b>	N/A	<b>Pelvis:</b>	N/A
Supraorbital ridges		Sciatic notch	
Mastoid processes		Subpubic angle	
Posterior zygomatic arch		Subpubic concavity	
Nuchal crest		Ischio-pubic ramus	
Anterior mandible		Ventral arch	
Orbital rims		Preauricular sulcus	
<b>Metrical data:</b>		Obturator foramen	
Femoral head diameter		Pelvic brim	
Femoral bicondylar width		Acetabulum	
Humeral head diameter		Segment morphology of the sacrum	
Radial head diameter			
Scapula glenoid cavity width			
Clavicle maximum length			

Site Code	CNN	Orientation	E-W
Skeleton No.	SK06	Disturbance	Y
Area/Context Number	[107]/(108)	Associated finds	Coffin grip, pipe stem
Condition	Good	Sex	F
Completeness	70-80%	Age	50-60+
Body Position	Supine	Stature average (cm)	165.5cm



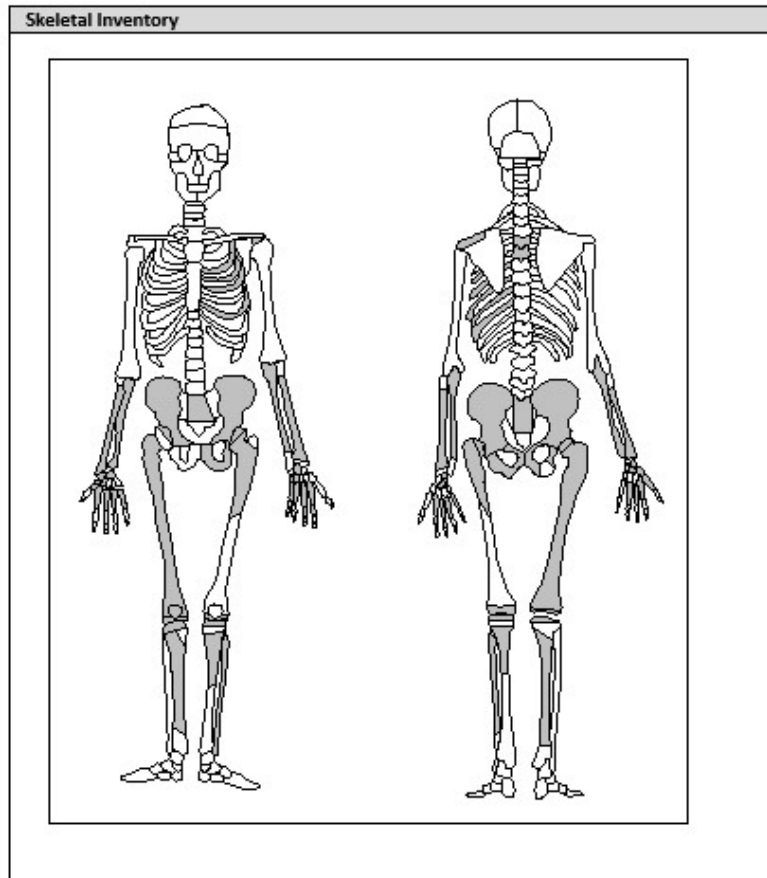
Adult Age	
Epiphyseal fusion	Clavicle fusion (25+)
Dental eruption and development	N/A
Dental attrition	N/A
Pubic symphyses	N/A
Cranial suture closure	Middle adult – older adult (35-50+)
Ilium auricular surface	Phase 8 (60+)

KEY	
	Present
	Absent
	Areas showing pathological change

Dental Inventory																	
Dental hypoplasia																	P=Pit, L=Line, G=Groove
Periodontal Disease																	S=Slight, M=Medium, C=Considerable, X=Jaw not present
Calculus																	O=Occlusal, B=Labial, L=Lingual, M=Mesial, D=Distal, A=All/S=Slight, X=Medium, C=Considerable
Abscesses																	B=Buccal, L=Lingual
Caries																	O=Occlusal, M=Mesial, D=Distal, B=Labial, L=Lingual, G=gross, C= CEJ
<b>Maxillary teeth</b>	8 X	7 X	6 X	5 X	4 X	3 X	2 X	1 X	1 X	2 X	3 X	4 X	5 X	6 X	7 X	8 X	X=Lost ante-mortem, /=lost post-mortem, B=Broken, V=Unerupted, O=Erupting, NP=Undeveloped
<b>Mandibular teeth</b>	8 X	7 X	6 X	5 X	4 X	3 X	2 X	1 X	1 X	2 X	3 X	4 X	5 X	6 X	7 X	8 X	X=Lost ante-mortem, /=lost post-mortem, B=Broken, V=Unerupted, O=Erupting, NP=Undeveloped
Caries																	O=Occlusal, M=Mesial, D=Distal, B=Labial, L=Lingual, G=gross, C= CEJ
Abscesses																	B=Buccal, L=Lingual
Calculus																	O=Occlusal, B=Labial, L=Lingual, M=Mesial, D=Distal, A=All/S=Slight, X=Medium, C=Considerable
Periodontal Disease																	S=Slight, M=Medium, C=Considerable, X=Jaw not present
Dental Hypoplasia																	P=Pit, L=Line, G=Groove

Sex (F = Female, M = Male, I = Indeterminate)			
<b>Skull:</b>	F	<b>Pelvis:</b>	F
Supraorbital ridges	F	Sciatic notch	F
Mastoid processes	F	Subpubic angle	F?
Posterior zygomatic arch	N/A	Subpubic concavity	F?
Nuchal crest	F	Ischio-pubic ramus	F
Anterior mandible	F	Ventral arch	F?
Orbital rims	F	Preauricular sulcus	Not present
<b>Metrical data:</b>		Obturator foramen	F
Femoral head diameter	43mm (F)	Pelvic brim	N/A
Femoral bicondylar width	75mm (?)	Acetabulum	N/A
Humeral head diameter	40.2mm (F)	Segment morphology of the sacrum	N/A
Radial head diameter	18.6mm (F)		
Scapula glenoid cavity width	27mm (?)		
Clavicle maximum length	141mm (?)		

Site Code	CNN	Orientation	E-W
Skeleton No.	SK07	Disturbance	Y
Area/Context Number	[117]/(115)	Associated finds	Coffin grip
Condition	Good	Sex	-
Completeness	35%	Age	6-8 ±2 years
Body Position	Supine	Stature average (cm)	-



Juvenile Age	
Epiphyseal fusion	All epiphysis developed but unfused
Dental development	N/A
Post-cranial measurements:	
Humerus length	-
Radius length	-
Ulna length	165mm
Femur length	295mm
Tibia length	-
Fibula length	-
Ilium width	101mm

KEY	
	Present
	Absent



Dental Inventory																	
Dental hypoplasia																P=Pit, L=Line, G=Groove	
Periodontal Disease																S=Slight, M=Medium, C=Considerable, X=Jaw not present	
Calculus																O=Occlusal, B=Labial, L=Lingual, M=Mesial, D=Distal, A=All/S=Slight, X=Medium, C=Considerable	
Abscesses																B=Buccal, L=Lingual	
Caries																O=Occlusal, M=Mesial, D=Distal, B=Labial, L=Lingual, G=gross, C= CEJ	
Maxillary teeth	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	X=Lost ante-mortem, /=lost post-mortem, B=Broken, V=Unerupted, O=Erupting, NP=Undeveloped
Mandibular teeth	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	X=Lost ante-mortem, /=lost post-mortem, B=Broken, V=Unerupted, O=Erupting, NP=Undeveloped
Caries																	O=Occlusal, M=Mesial, D=Distal, B=Labial, L=Lingual, G=gross, C= CEJ
Abscesses																	B=Buccal, L=Lingual
Calculus																	O=Occlusal, B=Labial, L=Lingual, M=Mesial, D=Distal, A=All/S=Slight, X=Medium, C=Considerable
Periodontal Disease																	S=Slight, M=Medium, C=Considerable, X=Jaw not present
Dental Hypoplasia																	P=Pit, L=Line, G=Groove

Sex (F = Female, M = Male, I = Indeterminate)			
<b>Skull:</b>			
Supraorbital ridges	N/A	<b>Pelvis:</b>	N/A
Mastoid processes	N/A	Sciatic notch	N/A
Posterior zygomatic arch	N/A	Subpubic angle	N/A
Nuchal crest	N/A	Subpubic concavity	N/A
Anterior mandible	N/A	Ischio-pubic ramus	N/A
Orbital rims	N/A	Ventral arch	N/A
<b>Metrical data:</b>	N/A	Preauricular sulcus	N/A
Femoral head diameter	N/A	Obturator foramen	N/A
Femoral bicondylar width	N/A	Pelvic brim	N/A
Humeral head diameter	N/A	Acetabulum	N/A
Radial head diameter	N/A	Segment morphology of the sacrum	N/A
Scapula glenoid cavity width	N/A		
Clavicle maximum length	N/A		

## Appendix 4: Index of Archive and Arrangements for Deposition

<b><i>Field Records</i></b>	<b><i>Description</i></b>	<b><i>Number</i></b>
Context register	Register of context numbers and descriptions	1
Context sheets	Record of features and deposits	15
Skeleton Record Sheets	Record of all articulated burials excavated and held within the burial ground.	7
Photo record sheet	Record of photographs taken	1
Digital photographs	All views	625
Site drawings	Plan of site	2
<b><i>Documents</i></b>		
<b><i>Documents</i></b>	<b><i>Description</i></b>	<b><i>Number</i></b>
Written scheme of investigation	Statement of the aims, objectives and methodology for the project.	0
Health & Safety	Safe working statement & risk assessment	1
Report to client	Report of findings of the watching brief.	1
<b><i>Finds</i></b>		
<b><i>Finds</i></b>	<b><i>Description</i></b>	<b><i>Number</i></b>
Pottery, animal bone, coffin furnishings, clay pipe, glass, slate, CBM	Medieval and post-medieval	171
Bone	Disarticulated human bone	790
Bone	Articulated skeletons	7

The site archive is currently held at the offices of Trent & Peak Archaeology, Unit 1, Holly Lane, Chilwell, Nottingham, NG9 4AB. The site archive will be deposited with Nottingham City Museum and Gallery under accession number NCMG 2019-43. The human remains will be deposited with the Church of St Nicholas, Nottingham no later than 2024.

## Appendix 5: OASIS Data Collection Form

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# OASIS DATA COLLECTION FORM: England

[List of Projects](#) | [Manage Projects](#) | [Search Projects](#) | [New project](#) | [Change your details](#) | [HER coverage](#) | [Change country](#) | [Log out](#)

## Printable version

**OASIS ID: trentpea1-344922**

### Project details

Project name	Church of St Nicholas/ Nelson's Solicitors Carpark
Short description of the project	During February 2019 Trent and Peak Archaeology undertook an archaeological excavation within a c 30m <sup>2</sup> area of land to the rear of 8 Pennine House, Stanford Street, Nottingham (centred on SK 57182 39579). Groundworks undertaken prior to archaeological mitigation revealed evidence for articulated human remains within a portion of land adjacent to the boundary wall of the Church of St. Nicholas. An emergency excavation was undertaken to determine the presence or absence of additional burials. All work was undertaken within the remit of burial licence 19-0018, and to standards specified by Historic England (Mays 2018) and ClfA and BABAO (Mitchell and Brickley 2017).
Project dates	Start: 13-02-2019 End: 18-02-2019
Previous/future work	No / No
Any associated project reference codes	CNN - Sitecode
Type of project	Recording project
Site status	None
Current Land use	Industry and Commerce 2 - Offices
Monument type	CEMETERY Medieval
Monument type	CEMETERY Post Medieval
Significant Finds	ANIMAL BONE Post Medieval
Significant Finds	HUMAN BONE Post Medieval
Significant Finds	COFFIN FITTING Post Medieval
Significant Finds	POTTERY Post Medieval
Significant Finds	POTTERY Medieval
Investigation type	"Open-area excavation"
Prompt	Rescue

### Project location

Country	England
Site location	NOTTINGHAMSHIRE NOTTINGHAM NOTTINGHAM Church of St Nicholas/ Nelsons Solicitors Carpark
Postcode	NG1 7BQ
Study area	200 Square metres
Site coordinates	SK 457179 339573 52.900788738301 -1.320252679392 52 54 02 N 001 19 12 W Point

Height OD / Depth Min: 30m Max: 30m

### Project creators

Name of Organisation Trent and Peak Archaeology

Project brief originator Nottingham City Council

Project supervisor Victoria Owen

Type of sponsor/funding body Developer

Name of sponsor/funding body Nelson's Solicitors

### Project archives

Physical Archive recipient Nottingham City Museums and Gallery

Physical Archive ID NCMG 2019-43

Physical Contents "Animal Bones","Ceramics","Glass","Metal","Wood"

Digital Archive recipient Nottingham City Museums and Gallery

Digital Archive ID NCMG 2019-43

Digital Contents "Animal Bones","Ceramics","Glass","Metal","Wood"

Digital Media available "Images raster / digital photography","Survey","Text"

Digital Archive notes Human bone to be deposited with the Church of St Nicholas for reburial

Paper Archive recipient Nottingham City Museums and Gallery

Paper Archive ID NCMG 2019-43

Paper Contents "Animal Bones","Ceramics","Glass","Metal","Wood"

Paper Media available "Context sheet","Drawing","Photograph","Plan","Report","Section","Survey","Unpublished Text"

Paper Archive notes Human bone to be deposited with the Church of St Nicholas for reburial

### Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)

Title Nelson's Solicitors Carpark, Nottingham and St. Nicholas Church, Nottingham. Report on an Archaeological Excavation.

Author(s)/Editor(s) Owen, V

Other bibliographic details 052/2019

Date 2019

Issuer or publisher Trent and Peak Archaeology

Place of issue or publication Trent and Peak Archaeology

Description	Grey literature, PDFa
Entered by	V. Owen (vowen@yorkat.co.uk)
Entered on	20 June 2019

## OASIS:

Please e-mail [Historic England](#) for OASIS help and advice

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