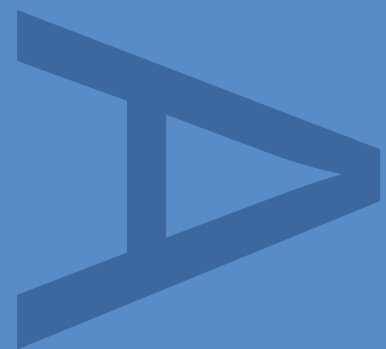


An Archaeological
Excavation on Land
at the Elephant
and Castle Leisure
Centre, London Borough
of Southwark, SE11 4TW

SMC 11

PCA Report No: R11773

June 2014



PRE-CONSTRUCT ARCHAEOLOGY

DOCUMENT VERIFICATION

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**An Archaeological Excavation on Land at the Elephant
and Castle Leisure Centre, London Borough of
Southwark, SE11 4TW**

Site Code: SMC 11

Central National Grid Reference: TQ 3184 7887

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Pre-Construct Archaeology Limited, June 2014

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1 ABSTRACT

- 1.1 Following an earlier archaeological evaluation (Seddon 2011), an archaeological excavation and a further associated evaluation comprising six trenches were undertaken by Pre-Construct Archaeology Ltd on land at the Elephant and Castle Leisure Centre, Southwark, London SE11 4TW. The associated six trench evaluation has been reported previously in Barrowman, 2012. The excavation was commissioned by Southwark Council in advance of a proposed redevelopment of the site which involves the construction of a new leisure centre. The site is bounded to the north by Brook Drive, to the west by Churchyard Row, to the south by St Mary's Churchyard and to the east by the A3.
- 1.2 Following the initial evaluation the excavation area was limited to a mitigation zone situated along the southern site boundary. This zone occupied the northernmost area of a plot of land which once formed part of the St Mary Newington churchyard. The associated six trench evaluation failed to identify any areas of further significant archaeological potential (Barrowman 2012).
- 1.3 The archaeology encountered was multi-phase, with the features and deposits dating to six historic periods: At the base of the sequence there were layers of prehistoric origin, followed by mid 18th to mid 19th century, mid 19th century, mid to late 19th century, late 19th century and modern remains.
- 1.4 Geologically the site was underlain by the Pleistocene (Devensian) Kempton Park River Terrace Gravels. It was situated on low lying ground on the gravel terrace to the south of the north Southwark eyots.
- 1.5 The earliest archaeological evidence observed on the site concerned a number of silty clay deposits which were identified as transgressive marine episode relating to either the River Thames or a relict channel. These layers produced no diagnostic material, yet a horizon of peat observed during the footing removals of the leisure centre is believed to date to the Mid to Late Bronze Age.
- 1.6 The earliest evidence of habitation on the site dated to the mid 18th to mid 19th century. This comprised a large east-west aligned ditch associated with Parsonage House which once stood on the plot of land to the north. Ceramic material recovered from the primary fill of the ditch post-dated AD 1780. The precise function of the ditch was unclear, although it may have been used for drainage purposes and certainly seems to have formed a boundary marker between the Parsonage and the parcel of land to the south. A fenceline was also recorded in association with the ditch, and the introduction of a red brick wall immediately to the south of the linear is believed to relate to the expansion of St Mary's cemetery in the period between AD 1738 and 1792-99.

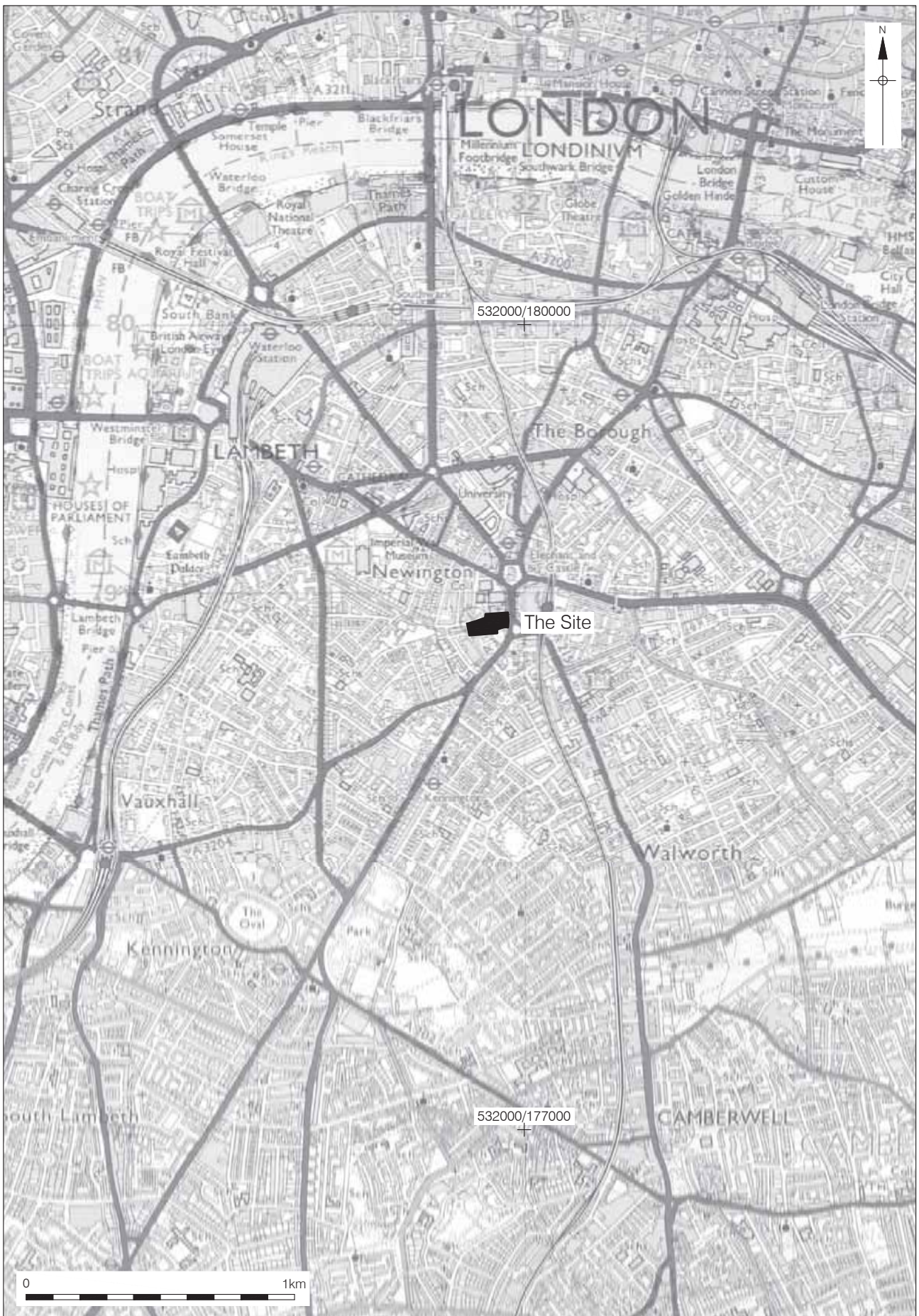
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- 1.7** During the mid 19th century the large ditch was backfilled with refuse as part of a re-landscaping episode. The cultural material retrieved from the ditch was particularly interesting and included pottery associated with both a public house and the industrial manufacturing of white lead, whilst the animal bone indicated the proximity of both a furrier and a knackers' yard. During this period part of the northern cemetery wall was also removed as the graveyard was expanded and a large vault structure comprising 25 individual crypts was erected. These Vaults were then bonded onto the remaining upstanding section of the 18th century cemetery wall. Levelling layers associated with the Vault construction were also observed and included sections of the earlier wall.
- 1.8** Following the construction of the Vaults and the levelling of the ground surface, the empty plot of land situated between the now demolished cemetery wall and the new Vaults began to be utilised for inhumations. During the period that this part of the cemetery was in use a considerable number of burials took place, with c. 300 recovered during the archaeological excavation process. Almost all of the inhumations were aligned with the head to the west and the feet to the east in a supine position. Stacking was common within the graves, with between 5 or 6 coffins regularly recorded within each plot. The final burials at the tops of the stacks were often neonates or infants. The vast majority of the inhumations were recorded with associated coffins, yet the ground conditions meant that in most instances the wood had rotted to little more than a stain with only the fittings remaining. Stack collapse was also an issue, particularly in regards of the excavation of the skeletons. Analysis of the human remains has proved interesting, with evidence of skeletal disease, fractures and post-mortem dissection. Burial with the churchyard of St Mary's ceased in AD 1854.
- 1.9** In AD 1871 a decision was made to demolish St Mary's in order to widen Newington Butts. The church was subsequently moved to Kennington Park Road and the old structure was completely levelled by AD 1876. A new church was erected at the northern end of the site as a chapel of easement however, and the footings of this structure were revealed during the excavations. Consecrated in AD 1874, the development of St Gabriel's Church had severely impacted upon the underlying burials, cutting clean through them in many instances. These remains were removed during the construction process and were redeposited within the empty Vaults as either disarticulated charnel or as complete burials within their original coffins. In several instances the charnel had been arranged, essentially converting the Vaults into ossuaries or charnel houses. Some lead coffins were also present within the Vaults, and although some of these may have been interred whilst they were still operative as crypts, others had clearly been moved into them at a later date. This action is also likely to have occurred during the clearance of St Mary's churchyard and the construction of St Gabriel's. The Vaults were then permanently sealed. To the north of the churchyard the footings of two domestic dwellings were revealed.
-

These represented numbers 2 and 4 St Gabriel Street, a late 19th century terraced road which once occupied the study site and is believed to have been developed at the same time as the church.

- 1.10** The final phase of activity comprised a single concrete structure which was initially interpreted as an air raid shelter. This building first appears on the Ordnance Survey map of AD 1916 and although rare examples of 1st World War air raid shelters exist, this explanation does seem unlikely. The original function of the structure therefore remains ambiguous at present.

2 INTRODUCTION

- 2.1** This report details the results and working methods of an archaeological excavation undertaken by Pre-Construct Archaeology Ltd on land at the Elephant and Castle Leisure Centre, Southwark, London SE11 4TW. The excavation was commissioned by Southwark Council in advance of the construction of a new leisure centre on the site. The site's central National Grid Reference is TQ 3184 7887. The field excavation was conducted between the 30th of July 2012 and the 2nd of April 2013.
- 2.2** The site was located on land previously occupied by the Sports Hall wing of the Elephant and Castle Leisure Centre, with the main area of excavation situated on a strip of land to the south of the building and immediately north of the St Mary's Churchyard playground. The site itself was bounded to the north by Brook Drive, to the west by Churchyard Row, to the south by St Mary's Churchyard and to the east by the A3.
- 2.3** The study site is partially located within the London Borough of Southwark's Archaeological Priority Zone (APZ) Elephant and Castle / Kennington Park Road. This zone follows the alignment of the Roman Road from London to Chichester (Stane Street) and also incorporates the Saxon and medieval village of Newington Butts.
- 2.4** The project was commissioned by John Ryan of Southwark Council. The field excavation was undertaken by Pre-Construct Archaeology Ltd under the supervision of Alexis Haslam and the project management of both Gary Brown and Peter Moore. The work was additionally monitored for the local planning authority by Dr. Christopher Constable, Senior Archaeology Officer for the London Borough of Southwark.
- 2.5** Both a Written Scheme of Investigation (Brown 2012) and a Construction Phase Plan (Brown & Meddens 2012) were prepared prior to the fieldwork commencing.
- 2.6** The completed archive comprising written, drawn and photographic records and artefacts will be deposited with the London Archaeological and Research Centre (LAARC), Mortimer Wheeler House, Eagle Wharf Road, London N1 7ED.
- 2.7** The site was allocated the site code SMC 11.



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Figure 1
Site Location
1:20,000 at A4

3 PLANNING BACKGROUND

- 3.1** On the 27th of March 2012 the Department for Communities and Local Government issued the National Planning Policy Framework (NPPF). Section 12 of this policy framework is entitled 'Conserving and Enhancing the Historic Environment' and replaces Planning Policy Statement 5 (PPS5), which had previously been adopted in March 2010. PPS5 replaced the earlier Planning Policy Guidance Note 16 (PPG16). As such, Section 12 provides guidance for planning authorities, property owners, developers and others on the preservation and investigation of archaeological remains.
- 3.2** In considering any planning application for development, the local planning authority will be guided by the policy framework set by government guidance, in this instance NPPF Section 12, by current Structure and Local Plan policy and by other material considerations.

ARCHAEOLOGY IN THE LONDON BOROUGH OF SOUTHWARK AND THE SOUTHWARK PLAN

- 3.3** The relevant Development Plan framework is provided by the Southwark Plan which was adopted on the 28th of July 2007. This plan contains policy statements in respect of protecting the buried archaeological resource. The site is subject to the Council's Archaeology Policy:

Policy 3.19 Archaeology

- 313 Planning applications affecting sites within Archaeological Priority Zones (APZ's), as identified in Appendix 8, shall be accompanied by an archaeological assessment and evaluation of the site, including the impact of the proposed development. There is a presumption of preservation in situ, to protect and safeguard remains of national importance, including scheduled monuments and their settings. The in situ preservation of remains of local importance will also be sought, unless the importance of the development outweighs the local value of the remains. If planning permission is granted to develop any site where there are archaeological remains or there is good reason to believe that such remains exist, conditions will be attached to secure the excavation and recording or preservation in whole or in part, if justified, before development begins.

Reasons

- 314 Southwark has an immensely important archaeological resource. Increasing evidence of those peoples living in Southwark before the Roman and medieval period is being found in the north of the borough and along the Old Kent Road. The suburb of the Roman provincial capital (Londinium) was located around the southern bridgehead of the only river crossing over the Thames at the time and remains of Roman buildings, industry, roads and cemeteries have been discovered over the last 30 years. The importance of the area during the medieval period is equally well attested both archaeologically and historically. Elsewhere in Southwark, the routes of Roman roads (along the Old Kent Road and Kennington Road) and the historic village cores of Peckham, Camberwell, Walworth and Dulwich also have the potential for the survival of archaeological remains.
- 315 PPG16 (Now NPPF Section 12) requires the council to include policies for the protection, enhancement and preservation of sites of archaeological interest and of their settings.
- 3.4** The study site is partially located within the London Borough of Southwark's Archaeological Priority Zone (APZ) for the Elephant and Castle / Kennington Park Road. This APZ follows the line of Stane Street, the Roman road from London to Chichester, and also incorporates the Saxon and medieval village of Newington Butts.

4 GEOLOGY AND TOPOGRAPHY

- 4.1 The Geological Survey of Great Britain (South London – Sheet 270) shows the site as sitting upon Eocene London Clay which overlies the Woolwich and Reading Beds. Sealing the London Clay are the Devensian Kempton Park Gravels, a sequence identified as sandy gravel with localised lenses of silt, clay and peat (BGS 2012).
- 4.2 The ‘Rockingham Anomaly’ is located a short distance to the north-east of the site. Here, an isolated zone of London Clay is overlain by Flandrian alluvium and Quaternary peat (BGS 2012). The variation in the underlying geology within this area of Southwark suggests that it would have been particularly marshy during both the archaeological and historical past (Miles 2008).
- 4.3 The upper part of the Neckinger River known as Lock Stream is believed to have flowed through the Elephant and Castle after rising in St George’s Fields (Weinreb *et al* 2008, 576). The stream then continued eastwards from Newington Butts forming a pond near the Lock Hospital at the junction of Tabard Street and Great Dover Street before crossing Great Dover Street near the first milestone from London Bridge (Barton 1982, 45). The river then continued through the grounds of Bermondsey Abbey before entering the Thames at St Saviour’s Dock (Weinreb *et al* 2008, 576). Conjecture suggests that Lock Stream may have been located to the immediate north of the study site, possibly running along the length of what is now Brook Drive.
- 4.4 Natural deposits of the Kempton Park Gravels were recorded during the excavation at between -0.06m OD and -0.47m OD.
- 4.5 Levels taken along the southern side of the site prior to excavation recorded current ground level at between 4.20 and 4.45m OD. Terracing to the north of the excavation area undertaken during the construction of the Leisure Centre had reduced ground level to c. 1.86m OD.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

5.1 Introduction

5.1.1 The archaeological and historical background of the site has previously been reported in Taylor 2012. This document detailed the archaeological and historic evidence as revealed on a Greater London Historic Environment Record (GLHER) search within a 500m radius of the study site. The evidence revealed was further supplemented by a site specific historic map regression and reference to relevant archives.

5.2 Prehistoric

5.2.1 The basic palaeo-topography of Southwark consists of sand and gravel islands eroded and dissected by braided channels and tributaries of the Thames producing a landscape of low lying islands or eyots separated by mudflats, marshes and tidal watercourses (Allen *et al* 2005, 73). Due to the low-lying nature of the region, Southwark has been affected by generally rising sea levels since the last glaciations and its constantly changing landscape has had a direct impact on settlement patterns in the area.

5.2.2 The study site is situated on the gravel terrace to the south of the north Southwark eyots and would have once overlooked the Thames. There are a number of Palaeolithic findspots within the vicinity of the site, with flint tools recovered to the south at Kennington Park Road (MLO7763) and to the west at Kennington Road (MLO4086). These discoveries suggest that the gravel terrace was being used by hunter gatherers during the Palaeolithic period.

5.2.3 There is however an absence of findspots dating to the later prehistoric periods of the Mesolithic, Neolithic, Bronze Age and Iron Age. Some of the only archaeological evidence relating to any of these phases was discovered during an earlier watching brief undertaken on the site in 1976. These works revealed a peat horizon which is believed to have formed during the Bronze Age (MLO63726). This 'Tilbury Peat' deposit is believed to have accumulated through the decomposition of plant remains and other organic materials and is representative of a waterlogged marshland. As such, the area is unlikely to have been attractive in terms of settlement.

5.2.4 Elsewhere within the vicinity of the site a number of archaeological investigations have produced evidence of deposits and cut features associated with both marshland and agricultural environments. None of these discoveries have been securely dated to a specific period, yet they are believed to be broad ranging in date, spanning the prehistoric, Roman, Saxon, medieval and post-medieval periods. Findspots include a SW-NE orientated water channel identified to the north of the site at the London College of Printing (MLO75032), a number of wooden water pipes recorded to the

south-east of the site on Newington Butts (MLO13166), wooden piles and marshland/flood deposits to the north-east on Tarn Street (MLO98785) and ancient cultivated soils in the surrounding vicinity (MLO73281 / MLO58638 / MLO63995).

5.3 Roman

- 5.3.1 The Roman presence in Southwark is well documented and numerous excavations have revealed the presence of an extensive settlement on the southern side of the Thames. The main area of settlement was focused on north Southwark, stretching at least as far south as Tabard Square where 2nd century Roman clay and timber buildings have been discovered along with a later religious complex.
- 5.3.2 Extending south from Southwark was the Roman road of Stane Street which continued on towards Chichester, roughly following the line of the modern Kennington Park Road. The conjectured alignment places Stane Street to the immediate east of the study site. Two archaeological investigations conducted within the vicinity of the Leisure Centre have recorded *in situ* Roman road surfaces and it is possible that these metallised horizons represent evidence of the Roman road (MLO4183 / MLO5660).
- 5.3.3 The proximity of the site to Roman Southwark suggests that a roadside settlement within Newington area would have been unlikely, although a number of localised findspots are indicative of human activity. To the north of the site, excavations conducted on Skipton Street revealed several large ditches from which complete pots, a cremation and two limestone statues were recovered (MLO22242). Roman pottery was also retrieved during an evaluation along Newington Causeway (MLO61092) and further material including Roman tesserae and tile was recovered during both an archaeological evaluation and excavation at the London College of Printing in 2001 (AOC 2001). Two dog skeletons and three complete pots are recorded as found buried within a wooden box at Elephant and Castle (MLO4356) whilst Roman pottery and glass has been found elsewhere within the area (MLO11405 / MLO7806 / MLO11430).
- 5.3.4 To the south of the site Roman ditches and a pit (MLO63706), deposits (MLO63270) and pottery and glass (MLO13517 / MLO4362) have all been recovered from within the Newington Butts area.

5.4 Saxon

- 5.4.1 Nearby Walworth is believed to have originated as a farm during the Saxon period. It is recorded as 'Wealawyr' in AD 1086 and was granted by Hitard (jester to Edmund Ironside) to Christ Church, Canterbury in AD 1052 (Darlington 1955c). The farm is

also referenced in the Domesday Survey of AD 1086. There is however no contemporary reference to Newington and it would seem that neither a settlement nor a farm stood within the immediate vicinity of the site during the Saxon period.

5.5 Medieval

- 5.5.1 Although Newington is not mentioned in the Domesday Book, the 11th century manor of Walworth is described as having 8 acres of meadow. As such, the size of the manor may have been sufficient to incorporate the site and there is therefore a possibility that the church listed as part of the Walworth Manor in fact refers to an 11th century predecessor of St Mary Newington. Alternatively, this church may have been located elsewhere within the manor.
- 5.5.2 Either way, the village of Newington and its parish church were established at the start of the 13th century when the construction of Lambeth Palace by the Archbishop of Canterbury increased the importance of roads converging on the Newington area (Darlington 1955c). Newington is first recorded as Niwetun in the 'Book of Fees' in 1212.
- 5.5.3 A number of important medieval locations have been identified in the vicinity of the site, including the three medieval roads of Kennington Lane, Walworth Road and Lambeth Street (MLO7626 / MLO13551 / MLO13563). The medieval village of Newington itself is identified at a short distance to the south (MLO14259), whilst the medieval parish church of St Mary Newington is located to the immediate south-east (MLO11400). The medieval history of the church is poorly documented although it is spoken of as being at Newington and is in the Archbishop of Canterbury's Register (Barlow 1874; cited in Walford 1878).
- 5.5.4 Medieval findspots in close proximity to the site include a number of intercut pits and postholes which were recorded during the archaeological investigations at the London College of Printing (MLO75034). Pits, ditches and pottery have also been found at Newington Butts (MLO63707 / MLO13517) whilst evidence of a possible medieval water channel has additionally been recorded (MLO7636).

5.6 Post-medieval (general)

- 5.6.1 The first reference to Newington Butts is variably documented as either AD 1512 (Darlington 1955c) or AD 1558 (Lysons 1792), and the name is likely to have originated from archery training. An alternative possibility suggests that the place name derived from the Butts family who owned an estate in the area (Walford 1878), or simply from the convergence of two roads in the area which formed a triangle of land (Darlington 1955c).

-
- 5.6.2 Between AD 1566 and AD 1580 a theatre was built on the east side of Walworth Road close to the junction with the New Kent Road by Richard Hickes (one of the Queen's Yeomen of the Guard) (MLO73238). The playhouse was situated on land leased from the Dean and Chapter of Canterbury and was subsequently demolished sometime before AD 1599. Early 17th century houses have also been recorded on Kennington Park Road and Kennington Lane (MLO4092 / MLO4137).
- 5.6.3 During the Civil War (AD 1642-1646) London was the parliamentary capital and an extensive network of defences was introduced in order to protect the city. Constructed beyond the city limits, these defences comprised a circuit of ditch and bank earthworks along with strategically located forts, redoubts and batteries. There are no contemporary maps of the defences, although the Scottish traveller William Lithgow described the circuit in AD 1643 and retrospective plans were produced during the 18th century. Running through the Elephant and Castle, London's southern defences are thought to have been located at Newington Causeway (MLO11403), Lambeth Road / Newington Causeway (MLO30382) and at Newington Causeway / Tabard Street (MLO30383). As yet however, no archaeological evidence for the Civil War defences has been discovered within the Elephant and Castle area.
- 5.6.4 Evidence of 17th century activity in the environs of the site comprises a number of Delft wasters discovered during a watching brief on Brook Drive (MLO63253). Similar ceramic material has been observed within contemporary road surfaces where it had been used as hardcore in the road makeup (MLO8849). The presence of wasters suggests that pottery manufacture was undertaken within the area, a premise further supported by the discovery of post-medieval kiln sagger fragments (MLO4111) and an assemblage of 18th century pothouse waste from an excavation at Albert Embankment (MLO77511).
- 5.6.5 Further post-medieval sites close to the Leisure Centre comprise a village at Kennington Lane (MLO4139), a private road used for state occasions at New Kent Road (MLO12337), the 18th/19th century turnpike at Elephant and Castle (MLO4147) and an 18th/19th century public house at Tam Street (MLO98795).
- 5.6.6 The 'Elephant and Castle' coaching inn was converted from a smithy in c. AD 1760 and eventually gave its name to the area after remaining in use during the 19th century and early 20th century (MLO4057). Historical records document that the inn was a celebrated 18th century coaching house and was a 'well know locality to every traveller going anywhere south of London' (Walford 1878).
- 5.6.7 By the mid 19th century the population of Newington Butts had reached 54,606 inhabitants and had become one of the most populous districts in the suburbs of the metropolis. Industries in the area at this time included an oil factory, lead and antimony smelting-house, tannery, glue factory, clay tobacco pipe maker, carpet

maker and carriage maker, whilst a 'common gaol' for 156 prisoners was located at the northern limit of the parish (Lewis 1848).

- 5.6.8 A block of almshouses owned by the Fishmongers' Company was also located close to the north-east corner of the site prior to their demolition in AD 1851 (MLO22057). The almshouses were replaced with the Metropolitan Tabernacle which was completed in AD 1859 and incorporated a chapel for 6,000 people, a lecture hall for 900 and a schoolroom for 1,000 (MLO92188 Walford 1878). The Tabernacle is Grade II listed.
- 5.6.9 Following the construction of Elephant and Castle Railway Station in AD 1863 (MLO74730), the role and character of the Elephant and Castle coaching inn changed significantly as a result of the decline in road traffic (Walford 1878). The inn was eventually demolished in the early 20th century.
- 5.6.10 A number of archaeological excavations within the vicinity of the site have identified evidence of post-medieval activity. These include an 18th century well and cess pits at Elephant and Castle (MLO20128), 18th century dumps at Meadow Row (MLO64014), 18th/19th century pits, dumps and a brick drain at Manor Place (MLO58634, MLO58639, MLO58640), 18th/19th century walls on Walworth Road (MLO76274, an 18th/19th century ditch at Amelia Street (MLO99252), 18th and 19th century pits, a ditch, soakaways and masonry at Newington Causeway (MLO61093), 19th century dumps at All Saints Annex (MLO73282) and 19th century soakaways and drains at London Road (MLO63996).

5.7 Post-medieval: St Mary's Church and Rectory

- 5.7.1 Alterations were made to St Mary's Church in c. AD 1600 by Henry Brawne, with repairs also undertaken in AD 1704 and a further phase of rebuilding recorded in AD 1720/21 (MLO4096). The church was described during the 18th century as 'an extremely plain, though very decent and convenient church' (Noorthouck 1773).
- 5.7.2 Old Parsonage House, a timber building surrounded by a moat with bridge crossings, was located to the north of St Mary's church and is reputed to have been 16th century in origin (Lewis 1848; Darlington 1955a).
- 5.7.3 Rocque's map of AD 1738 shows the study site as occupied by 'Parsonage House', its associated gardens and additional land to the south. The map also appears to depict the grounds of Parsonage House as bordered by large boundary ditches which seemed to feed into a moat which partially surrounded the house and led to a bigger pond in the east. A late 18th century document describes the rectory as follows: 'built of wood, appears to be very ancient; (and) it is surrounded by a moat, which has four bridges' (Lysons 1792).

5.7.4 An Act of Parliament passed in AD 1790 gave permission for St Mary's Church to be rebuilt and the work was completed in AD 1792/3 (Lysons 1792; Walford 1878). The rectory was also partially rebuilt sometime after AD 1794 (Darlington 1955a; Malden 1912). Horwood's map of AD 1792-99 suggests that the gardens of the rectory were altered at around the same time and neither the moat nor the pond is present on this map. Newington churchyard also appears to have been enlarged by this point in time as it is now shown as extending right up to the edge of the rectory garden and into the southern portion of the site. On the south-east corner of the site boundary a row of terraced houses are shown as fronting onto Parsonage Walk - an east-west aligned road or path which led to the now expanded churchyard.

5.7.5 By AD 1871, the proximity of the church to the main road had become an issue and the Board of Works, under the 'Metropolitan Improvements Act' proposed that it should be removed in order to enable the widening of Newington Butts (Walford 1878; Darlington 1955a). The rectory was removed at around the same time and the following extract describes the house and gardens prior to demolition:

"...formerly intersected by numerous ditches, some of which existed till quite recent times. They ran in various directions, completely surrounding the rectory grounds. To reach the 'Queen's Head' tea gardens, which occupied the site of the present National Schoolroom, it was necessary to cross some of these ditches by a small wooden bridge. The tea-gardens were in a line with Temple Street, at the western end of the Metropolitan Tabernacle. Indeed, so well watered was the neighbourhood of Newington Butts, that, if we may believe tradition, in 1571 occurred a great flood, so that the people were obliged to be conveyed in boats from the church 'to the pinfolds, near St George's, in Southwark'" (Walford 1878).

5.7.6 In AD 1875 St Mary's was rebuilt close to Kennington Station, and in AD 1876 the materials of the old church were auctioned. Soon after, c. 500 bodies were exhumed from the churchyard and interred in a vault. The former churchyard was subsequently 'enclosed by some neat railings' and opened as a public garden (Walford 1878; Darlington 1955a)

5.7.7 The church of St Gabriel was consecrated as a 'chapel of ease' to St Mary's parish in AD 1874. The chapel was built in brick in the 'style of the 13th century' and was located in the north of the old churchyard (Malden 1912). The chapel was redundant by AD 1936 and was demolished in AD 1937. The land was sold to Southwark Council for £4 in 1939.

5.8 Modern

5.8.1 By the time of the Ordnance Survey map of AD 1897 the site had been fully developed with terraced housing fronting onto St Gabriel Street, a north-west south-

east aligned road which ran across the centre of the site. On the eastern side of the site the National Schools, which first appear on the Ordnance Survey map of AD 1879, are still extant.

- 5.8.2 The character of the Elephant and Castle was significantly altered during the Second World War, and bomb damage during the Blitz (September 1940 - May 1941) was substantial. Although the site itself was not too badly affected the area around it was, and proposals for redevelopment were approved during the 1950's. By the time of the 1968 map the site is shown as completely clear and it remained so until the construction of the Leisure Centre between 1978 and 1980.

6 ARCHAEOLOGICAL METHODOLOGY

- 6.1** The excavation followed an earlier evaluation (Seddon 2011) which had identified the presence of post-medieval archaeology on the site. Both a Written Scheme of Investigation (Brown 2012) and a Construction Phase Plan (Brown & Meddens 2012) were prepared prior to the fieldwork commencing, detailing the methodology required for the excavation of the specified area.
- 6.2** This report details the archaeological excavation undertaken to the south of the former Elephant and Castle Leisure Centre Sports Hall. Additional work was conducted on the site at the same time and included a six trench evaluation within and to the north of the Sports Hall (30th July – 29th August 2012), and a two trench evaluation conducted in the eastern portion of the site as part of the Lend Lease development (13th – 17th August 2012). Both of these evaluations have been reported previously under Barrowman 2012 (six trench evaluation) and Archer 2012 (Lend Lease Development) and have not been included as part of this excavation assessment. The six trench evaluation was however recorded under the same site code as the excavation (SMC 11), whilst the Lend Lease evaluation was given the site code EPT 12.
- 6.3** Initial archaeological works began on the 30th of July 2012, with this part of the investigation commencing up until the 2nd of April 2013. The primary works involved the demolition of a footbridge connecting the Sports Hall to a footpath on the northern edge of St Mary's churchyard. Following demolition, excavation began with the use of a 13 tonne 360 degree mechanical excavator fitted with a grading bucket. Machining took place in spits of up to 30cm until archaeological horizons were reached. The spoil was moved by a dumper and mounded at the eastern end of the excavation area.
- 6.4** The machining revealed a series of 25 brick crypts, the footings of St Gabriel's Church and a cemetery wall. To the east of the cemetery wall the rear yards of 19th century terraced houses fronting onto St Gabriel Street were identified. The yard area was recorded quickly and excavation began within the cemetery plot where burials were identified. As the crypts were found to contain both lead coffins and charnel, a specialist exhumation group (BGS) were called in to remove the disarticulated human remains. Care had to be taken with the lead coffins, particularly where the vaulted crypt roofs were still intact. In such instances the front of the crypt was broken open with the use of 3 tonne machine fitted with a breaker. The crypt was then filled with demolition crash bags (stuffed with polystyrene chips) and a wooden board was placed on top of them. The roof was then broken by machine and the brickwork was removed by hand. Once the crash bags were lifted the lead coffins could then be reached. Rubbings of the name plates were taken on tracing paper with graphite, and

the coffins were lifted. The charnel and the coffins were reinterred at the St Pancras and Islington Cemetery, East Finchley, London N2 9AG. In several instances spatially arranged charnel was revealed within the crypts. This patterned material was recorded before being lifted and was subject to osteological examination. Once emptied the crypts were also recorded.

6.5 Within the cemetery area it quickly became apparent that the inhumations continued beneath the footings of St Gabriel's and that considerable ground reduction would be required to reach them. The depth of the burials also meant that shoring would be necessary and works ceased on October 19th once the excavation area had been covered and backfilled.

6.6 During this hiatus the brick footings of St Gabriel's were recorded before they were removed and the final three crypts (Crypts 23, 24 & 25) were opened up on December 3rd. These crypts originally continued beneath the footpath, a strip of land which was not deconsecrated until late 2012. Charnel and inhumations were again revealed in the final three crypts, but on this occasion the archaeological contractor removed the disarticulated human bone. Whilst the crypts were being recorded, the pile driven sheet piling was installed along the edge of the footpath. The ground was then reduced to the top of the burials with the use of a 5 tonne 360 degree machine fitted with a grading bucket and archaeological excavation resumed on December the 13th.

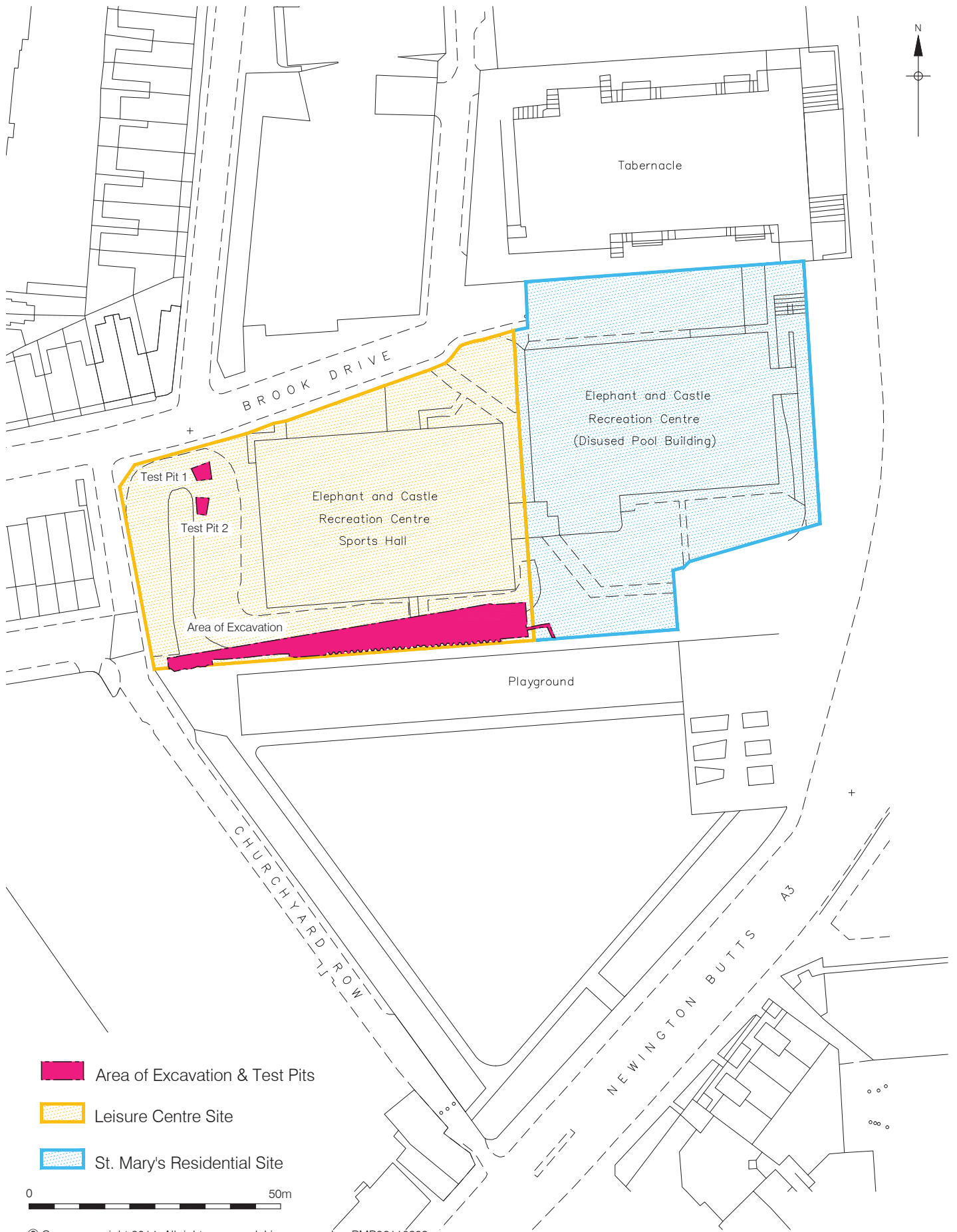
6.7 Once the burials had been removed and the ground reduced to a significant depth, the presence of both the concrete pads which formed the foundations of St Gabriel's and the crypts themselves made excavation problematic. For this reason the areas between the footings and at the eastern end were then slot excavated by both hand and, when required, by machine. For the purposes of this report the slots have been numbered from east to west as follows:

- Slot 1 – Grid Squares 100/200; 105/200
- Slot 2 – Grid Square 100/200
- Slot 3 – Grid Square 95/200
- Slot 4 – Grid Square 90/200
- Slot 5 – Grid Square 85/200
- Slot 6 – Grid Square 80/200
- Slot 7 – Grid Squares 70/200, 75/200

6.8 The documentation format used was the single context recording system, with individual descriptions of all archaeological features and strata excavated and exposed entered onto pro-forma recording sheets. All plans and sections of archaeological deposits and features were recorded on polyester based drawing film, the plans being drawn at a scale of 1:20 and the sections at 1:10. The OD height of

all principal strata was calculated and indicated on the appropriate plans and sections. Features that were evidently modern were not given context numbers and were recorded as modern intrusions in plan.

- 6.9** A grid was established in the excavation area with the use of a Total Station. Throughout the excavation GPS surveying equipment was used to survey in the limits of excavation, brick structures and targets used during the rectified photography process.
- 6.10** A total of five Temporary Bench Marks (TBM's) were established on the site with the use of the GPS surveying equipment. These had values of 4.14m OD, 4.20m OD, 3.41m OD, 4.04m OD and 3.11m OD.
- 6.11** Photographs, comprising colour slide, black and white print film and digital formats were taken of the archaeological features and deposits where relevant. A professional archaeological photographer visited the site when required in order to take large format shots of areas or specific features. Site staff used 35mm and digital cameras on a day-to-day basis, and the professional photographer used 35mm, medium format (120mm) and digital cameras.
- 6.12** The skeletons were recorded by rectified photography. This system involves the use of a number of targets placed around the individual inhumation which were then photographed from directly above. The targets were then surveyed in with the use of the GPS equipment. An on-site target register was used throughout the excavation.
- 6.13** A total of 3 bulk samples and two column samples were taken during the excavation in order to recover environmental information. After processing these were transferred to Quaternary Scientific (QUEST), University of Reading, for sub-sampling and assessment.
- 6.14** In this report, contexts are shown by square brackets, e.g. [100]
- [1] – [5] are from the initial evaluation of 2011
 - [6] – [1269] are from the subsequent evaluation and excavation of 2012 - 2013



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Figure 2
 Trench Location
 1:1,000 at A4

7 PHASED ARCHAEOLOGICAL SEQUENCE

7.1 PHASE 1 – NATURAL

7.1.1 The earliest deposits encountered during the excavation comprised the Pleistocene (Devensian) Kempton Park River Terrace Gravels. Described as a coarse to compact horizon of light to mid yellow brown sands and gravels, this natural layer was observed along the length of the excavation area. The top of the gravel was recorded at a highest level of -0.06m OD in Slot 5 in the central excavation area [1172], and at a lowest level of -0.33m OD at the eastern end [326]. At the western end of the excavation it was observed at -0.28m OD [1178] in Slot 7.

7.1.2 Due to the limited size of the excavation area, where observed the gravels offered little insight into the underlying natural topography of the site. They did appear to be at their highest within the central zone of the excavation however, and sloped downwards towards both the west and east.

7.2 PHASE 2 – UNDERLYING LAYERS

7.2.1 Sealing the natural gravels was a layer of firm to compact, yellow to mid brown-grey blue clay with occasional lenses of sand and gravel. Measuring between 0.39m [1263] and 0.72m [1160] in thickness, the top of this deposit was observed at a highest level of 0.62m OD [1161] in Slot 5 in the central area of the excavation and at a lowest level of 0.06m OD at the eastern end [325]. At the western end a series of deposits which formed part of the same sequence were recorded within a machine sondage in Slot 6. At the base of this sequence was [1154], a light orange grey deposit of silty sand which measured 0.24m in thickness at 0.34m OD. This was sealed by [1158], a light green to grey deposit of silty clay which was up to 0.38m thick at 0.42m OD. Overlying [1158] was [1159], a disturbed deposit of light brown silty clay which measured up to 0.25m thick and was in turn sealed by [1160], the same blue clay which was recorded within the rest of the excavation area as sealing the natural gravels at 0.50m OD.

7.2.2 The only diagnostic material retrieved from these deposits comprised nine intrusive pottery sherds dating to between AD 1830 and AD 1850 which were recovered from [1160]. The nature of the clay horizon did however suggest that its deposition was most probably water influenced, although this is likely to have been under low energy conditions. As with the natural gravels, the clay deposits did not offer a significant insight into the underlying topography of the site, although again they did appear to be at their highest within the centre of the excavation area and sloped down towards the west and the east.

- 7.2.3 At the eastern end of the excavation area, a further series of deposits was recorded as sealing the blue clay. These included a firm deposit of yellow brown sand and clay in Slots 1, 2 and 3 (respectively recorded as [1262], [1168], [1257]) which measured between 0.31m and 0.53m in thickness and was observed at between 0.57m OD and 0.68m OD. Sealing this layer was a horizon of firm to friable dark grey sandy clay (again in Slots 1, 2 and 3 - [1261] [1156], [1256]) which measured between 0.12m and 0.27m thick at between 0.76m OD and 0.78m OD. Forming the final part of this sequence in Slots 1 and 3 was a layer of blue grey sandy clay ([1234], [1255]) which measured up to 0.70m thick at 1.26m OD. Unfortunately no diagnostic material was recovered from any of these deposits.

An alluvial sequence (Fig. 3)

- 7.2.4 During demolition, works to remove the footings of the Leisure Centre to the north-east of the excavation area revealed an alluvial sequence which was observed in section only. Time was afforded by the demolition contractor to record this sequence which was drawn in section and partially column sampled. The earliest deposit encountered was [812], a firm deposit of light blue grey sandy clay which was observed at a highest level of 0.35m OD. This was sealed by [811], a stiff horizon of dark brown to black peaty clay which measured up to 0.29m thick at 0.53m OD. Sealing [811] was [810], a soft to friable deposit of light brown grey clay sand which was up to 0.33m thick at 0.82m OD and was in turn overlain by [809], a stiff brown deposit of grey silty clay which was up to 0.40m thick at 1.17m OD. The final horizon in the sequence [808] was recorded as a mid brown grey layer of clay silt which was up to 0.37m thick at 1.48m OD.

7.3 PHASE 3 – MID 18TH TO MID 19TH CENTURY

A linear feature and a dump layer

- 7.3.1 An east-west aligned linear feature [1155] was recorded in Slot 2 and extended into the southern limit of excavation. As seen it measured 2.20m in length, 1.10m in width and 0.18m in depth at 0.76m OD and had steeply sloping sides which descended onto a concave base. It was not observed in either Slot 1 to the east or Slot 3 to the west, which suggested that it did not continue for a considerable distance in either direction. It was filled by [1143], a soft deposit of light grey sandy silt which unfortunately did not contain any diagnostic material. With so little of this feature revealed it could not be accurately interpreted and it therefore remains enigmatic in terms of function.
- 7.3.2 Sealing [1143] was [1121], a friable mid brown grey layer of clay silt, which extended 1.98m from north to south and 2.28m from east to west as seen and measured up to

0.29m in thickness at 1.04m OD. A very small quantity of pottery was recovered from this context, providing a likely deposition date of between 1760 and 1780.

A ditch (Fig. 3)

- 7.3.3 The most significant feature discovered on the site belonging to Phase 3 concerned an east-west aligned ditch which cut the underlying Phase 2 deposits as well as the dump layer in Slot 2. Extending for at least 24.3m in length as seen only the southern side of ditch cut was revealed in Slots 1, 2 and 3 at the eastern end of the excavation area, with the northern side continuing beyond the limit of excavation. Fills associated with the ditch were also recorded in Slots 4 and 5, although the cut itself was not exposed in these instances as both the northern and southern sides of the linear feature were located beyond the excavation boundaries. Further to the east, initial ground reduction works early on in the excavation process failed to identify the ditch cut, although this was not surprising given the depth at which the ditch survived.
- 7.3.4 At its widest point in Slot 2 [1247] the ditch measured at least 4.06m in width and was recorded as up to 1.07m in depth at 1.14m OD. It was slightly deeper in Slot 3 [1254] where it extended up to 1.44m in depth at 1.57m OD, whilst in Slot 1 [1233] it was recorded at 0.87m in depth at 1.08m OD. In all instances the southern side of the cut was described as stepped with a gradually sloping edge. The base was only revealed in Slots 1 and 2 where it was respectively recorded as either flat or slightly concave.
- 7.3.5 Extending along the top of the cut in Slot 1 was a series of five stakeholes which represented a fenceline or barrier associated with the ditch itself. Running over a distance of 5.45m these stakeholes were circular in shape with the largest [1230] measuring 0.11m in diameter and 0.50m in depth at 0.97m OD, and the smallest [1228] measuring 0.04m in diameter and 0.20m in depth at 1.08m OD. All five were filled by a soft, dark brown deposit of decomposed timber and no finds were retrieved from any of the features. No further stakeholes were observed in Slot 2 to the west, although at this point the fenceline may have continued south beyond the limit of excavation.
- 7.3.6 A primary fill of the ditch was recorded in Slots 1 and 5 and was described as a friable to loose deposit of dark grey to yellow brown clay silt and sand. In Slot 1 the fill [1209] measured up to 0.95m in thickness at 1.18m OD and sealed the stakeholes which ran along the top of the ditch. This suggested that the ditch was most probably maintained throughout its existence before gradually falling into a state of ill maintenance. In Slot 5 the primary fill [1152] measured up to 0.04m in thickness at 0.64m OD and also contained inclusions in the form of CBM and oyster shell. Within Slot 2, two fills were identified as contemporary with the deposits in Slot 1 and 5. The earliest [1157] was described as a friable deposit of mid brown orange silty clay and

measured up to 0.18m in thickness at 0.51m OD. This was sealed by [1101], a loose deposit of mid yellow brown sand which was 0.13m thick at 1.24m OD.

7.3.7 Diagnostic material was recovered from these early fills along the length of the ditch and included pottery with a likely deposition date of between AD 1820 and 1840 along with clay tobacco pipe dated AD 1730-1780 in [1209] (Slot 1), pottery dating to between AD 1612 and 1800 in [1157] (Slot 2), pottery dating to between AD 1780 and 1830 along with clay tobacco pipe dated AD 1700-1740 in [1101] (Slot 2) and pottery dating to between AD 1815 and 1840 in [1152] (Slot 5). When compared to the pottery the slightly earlier date of the clay tobacco pipe is noteworthy, and certainly suggests that the ditch was open and in use during the mid to late 18th century. The largest ceramic assemblages were recovered from contexts [1209] and [1101], which therefore suggests that the primary fills of the ditch began to accumulate during the late 18th to early 19th century, most probably at some point between AD 1780-1840.

7.3.8 Cutting primary fill [1209] in Slot 1 was a rectangular posthole which measured 0.48m from north to south, 0.28m from east to west and 0.40m in depth at 1.09m OD. Located to the immediate south of earlier stakehole [1224] it was filled by [1221], a loose black deposit of clay silt which contained pottery dating to between AD 1760 and 1830. The presence of this posthole suggests that, despite some infilling within the ditch, an attempt may have been made to maintain a barrier along the southern side. Alternatively the posthole may have related to a bridge or crossing point, yet with no other associated features identified this interpretation could not be verified. The presence of the posthole did however suggest that the ditch continued in use after some infilling had taken place.

Plate 1: Ditch [1233] in Slot 1. Looking West



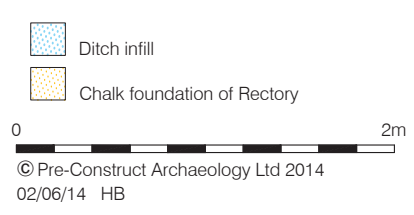
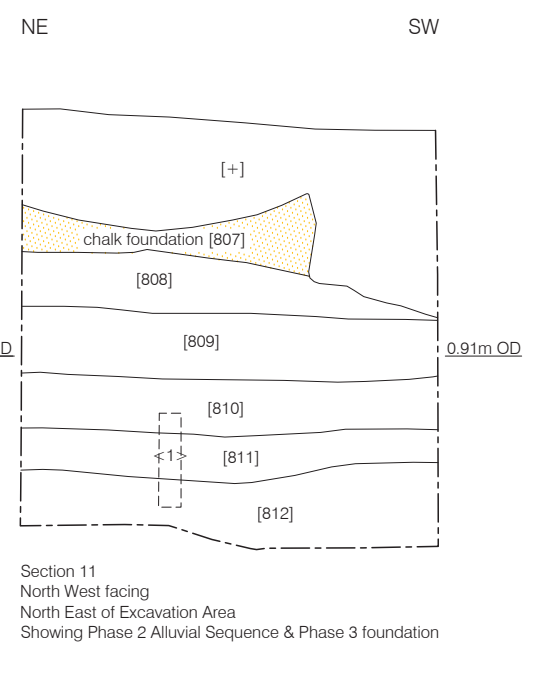
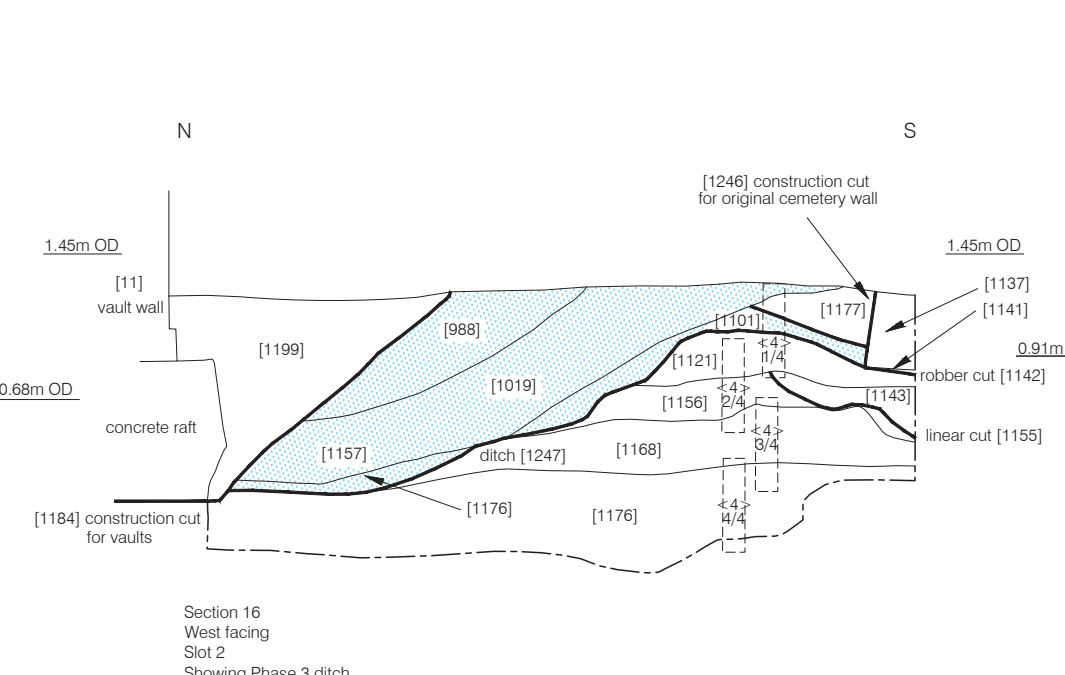
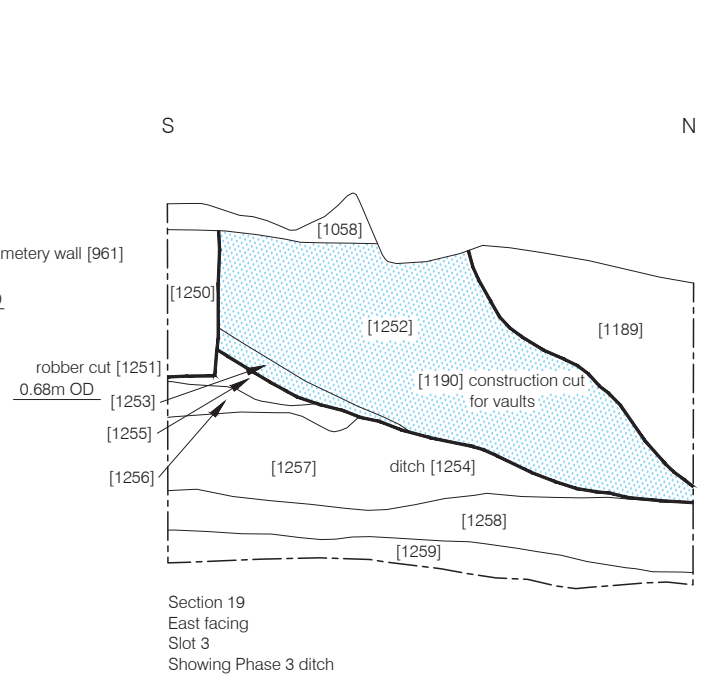
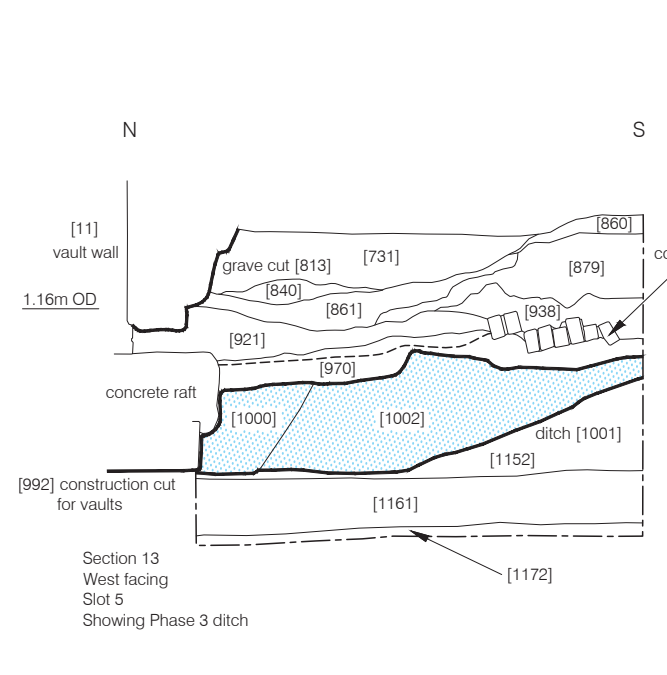
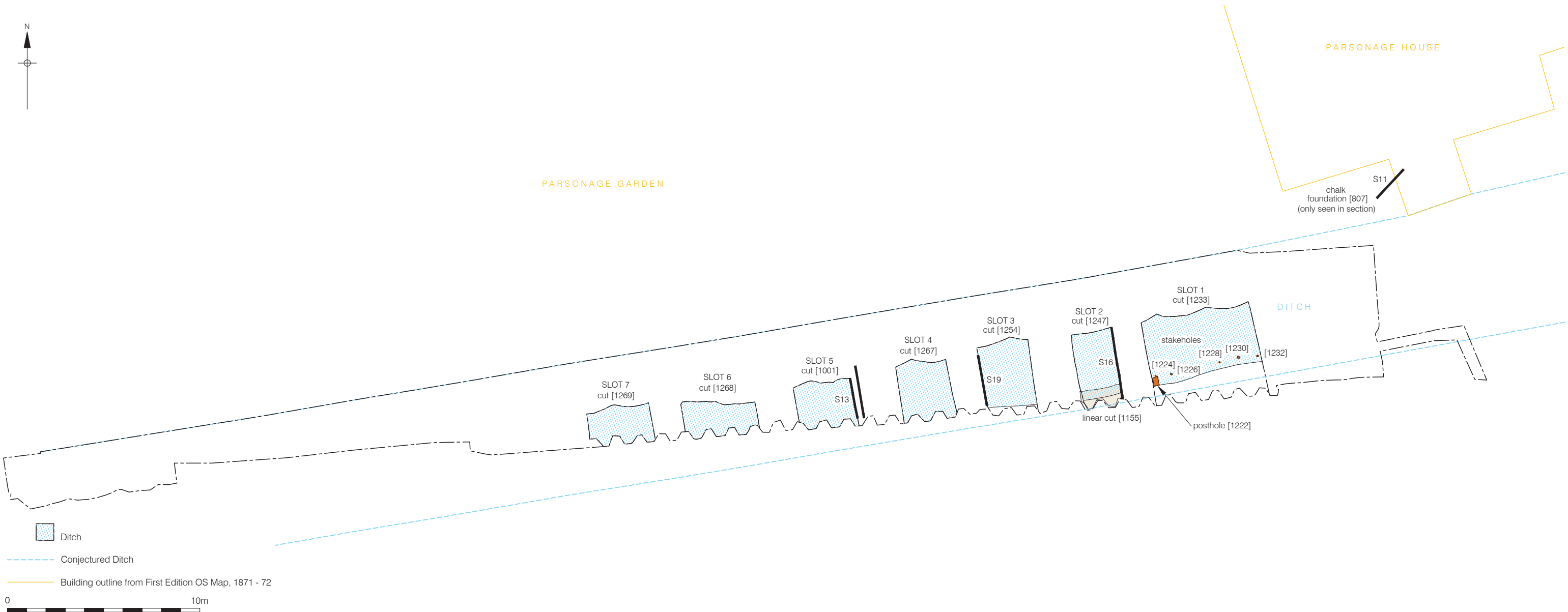


Figure 3
Phase 3a; Mid 18th - Mid 19th Century
Plan 1:200 & Sections 1:40 at A3

A wall (Fig. 4)

- 7.3.9 Cutting posthole [1222] in Slot 1 and the early ditch fills within Slot 2 was a linear east-west aligned cut which extended for 9.75m as seen. Recorded as [1214] in Slot 1 and [1246] in Slot 2, this feature measured up to a maximum of 0.66m in width and 0.37m in depth at between 1.17m OD and 1.28m OD. With vertical edges and a flat base which gradually sloped down towards the east, the cut itself had been heavily impacted upon by a subsequent episode of robbing and demolition. At the very eastern end of the cut the function of the linear became clear where it housed the remnants of [9], a brick wall constructed of red, frogged bricks. The impact of robbing and demolition meant that the wall had been completely truncated at its western end, leaving the remnants of the construction cut which then continued into the southern limit of excavation.
- 7.3.10 To the east the wall remained upstanding however, measuring 0.35m in width and bonded with a mid yellow lime mortar in a Flemish pattern. During the initial phase of excavation it was recorded at a highest level of 3.64m OD, meaning that in total it stood at 2.87m in height. The wall continued for a distance of 10.85m to the east, at which point it returned towards the south-east for 2.85m and then continued into the southern site boundary. Much of this portion of the wall was revealed under watching brief conditions conducted during investigative works associated with the new development.
- 7.3.11 A backfilled deposit was recorded within the construction cut and was described as a mid green grey deposit of silty clay. This context was respectively given the numbers [1213] in Slot 1 and [1177] in Slot 2. Pottery recovered from [1213] provided a deposition date of between AD 1770 and 1820.

Inhumations (Fig. 4)

- 7.3.12 On the southern side of the construction cut for the wall, an east-west aligned grave cut [1191] was recorded and continued into the southern limit of excavation. Measuring 2.26m in length and 0.58m in width, this cut was recorded with vertical sides and a flat base and extended up to 0.10m in depth at 1.03m OD. The inhumation [1211] at the base of the cut had been heavily disturbed by the shoring, but as seen lay in a supine and extended position with the right leg crossed over the left. Post-excavation analysis of the skeleton has determined that the burial was of a mid adult of indeterminate sex with a severe infection within both the left ulna and tibia (possibly osteomyelitis). The remnants of a wooden coffin [1210] were recorded in association with [1211], although this was in poor condition and an associated fill [1212] produced no diagnostic evidence.

-
- 7.3.13 Situated directly above [1211] within the same grave cut was [1193], another inhumation which was again resting in a supine position with the head in the east and the feet at the west. As with [1211], [1193] had been truncated along the right side and only 45% of the skeletal remains were recovered. These remains have been identified as most probably belonging to a mid adult female with evidence of ante-mortem tooth loss. The wooden coffin [1192] associated with [1193] was very poorly preserved and no diagnostic material was recovered from [1194], the upper fill of [1191].
- 7.3.14 Cutting [1194] and directly overlying [1191] (although aligned slightly more along a north-east south-west axis) was a secondary grave cut [1185], which also extended into the southern limit of excavation. Measuring 1.44m in length, 0.46m in width and 0.19m in depth at 1.50m OD this cut was recorded with vertical edges and a flat base and contained the skeletal remains of [1187], a mid to old adult of indeterminate sex. Only 25% of the inhumation was recovered due to truncation, but some evidence for the thickening of the frontal bone cortex was discovered during post-excavation analysis. As with the earlier burials, the remains of the wooden coffin [1186] belonging to [1187] were in a very poor state of preservation. Backfilling the cut was [1188], a mid brown grey deposit of silt, sand clay which contained pottery dating to the late 18th century.

A chalk foundation

- 7.3.15 The only other feature relating to Phase 3 concerned a chalk foundation situated above Phase 2 layer [808] in the alluvial sequence observed to the north-east of the excavation area. This foundation was seen in section only, but as recorded measured 1.57m from north-east to south-west and was 0.43m thick at 1.77m OD. It survived in a poor condition but was constructed from chalk blocks bonded with a light yellow sandy mortar.



PARSONAGE GARDEN

PARSONAGE HOUSE

SLOT 7

SLOT 6

SLOT 5

SLOT 4

SLOT 3

SLOT 2

SLOT 1

DITCH

S11
chalk
foundation [807]
(only seen in section)

S16

construction
cut [1246]
(only seen in section)







grave cut [1185]

grave cut [1191]

construction
cut [1214]

cemetery wall [9]

ST MARY'S NEWINGTON CHURCH YARD

-  Ditch
-  Conjectured Ditch
-  Grave cut
-  Cemetery wall
-  Conjectured cemetery wall
-  Building & wall outlines from First Edition OS Map, 1871 - 72

0 10m

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Figure 4
Phase 3b; Mid 18th - Mid 19th Century
1:200 at A3

7.4 PHASE 4 – MID 19TH CENTURY

The infilling of the ditch

- 7.4.1 The mid 19th century represented an important period of change in this area of the site as the landscape along the northern boundary of the churchyard underwent most significant alterations. The first phase in this process of transformation involved the backfilling of the large ditch situated to the north of the churchyard wall. Within Slots 1 and 2 a series of up to three deposits were recorded as filling the ditch and sealing the backfills of the construction cut for the wall. These were described as loose to stiff deposits of either mid green grey to yellow brown clay silt sand or stiff to friable fills of dark black to red brown silt clay sand. The earliest deposit in the sequence [1206] measured up to 0.21m in thickness and was sealed by [1019] which extended up to 1.05m in depth at 1.67m OD. The final ditch fill within these slots [988] was 0.68m thick at 1.99m OD. Both pottery and clay tobacco pipe were recovered from [1019] and [988] and provided a likely deposition date of between AD 1825 and 1845.
- 7.4.2 Fills of the ditch were again observed within Slot 3 where they were recorded in section only, with [1253] equating with [1206] and [1252] recorded as a soft dark grey silty clay which was 1.44m thick at 1.57m OD. No diagnostic material was recovered from these deposits although they clearly formed part of the same fill sequence observed further to the east.
- 7.4.3 Excavation of the ditch in Slot 5 again recorded a series of deposits along with a sequence of tip lines which suggested that the ditch was rapidly backfilled. A total of four fills were recorded within this slot and were variously described as mixed friable sands and clays, dark grey black to grey brown in colour with inclusions comprising fragments of CBM, oyster shell and sub-rounded pebbles. The earliest deposit within the sequence [1053] measured up to 0.33m thick at 0.97m OD and was sealed by [1038] at 1.17m OD. The final two fills were recorded as [1002] which was up to 0.81m thick and was in turn sealed by [1000] at 0.86m OD. The pottery and clay pipe recovered from these deposits was somewhat varied, with the clay pipe ranging from an earliest date of AD 1700 up to a latest date of AD 1860. When combined with the ceramic evidence however, a likely deposition date of between AD 1820 and 1840 does seem to be most likely.
- 7.4.4 In Slots 4, 6 and 7 the ditch proved somewhat more difficult to identify, yet deposits described during the excavation as 'levelling horizons' were most likely to represent fills of the long east-west aligned linear. In Slot 6 two such deposits were recorded, with the earliest, [1173], described as a dark grey brown clay containing occasional fragments of CBM. Observed at up to 0.10m thick at 0.65m OD [1173] was sealed by [1010], a dark brown to black peaty deposit of sand silt containing fragments of CBM. This fill was identical to both [1097] in Slot 4 and [1174] in Slot 7 which were recorded

at between 0.45m and 0.88m in thickness at a highest level of 1.13m OD. Clay tobacco pipe and pottery again provided diagnostic evidence from these contexts and implied a deposition date of between AD 1825 and 1840.

- 7.4.5 When combined, all of this evidence suggested that the ditch was deliberately infilled at some point between AD 1825 and 1840. The ceramic material recovered from the various slots along its length proved most interesting and included white lead making industrial forms and flowerpots. Italian oil jars were also retrieved implying the proximity of a colour / pigment or paint shop, whilst tankards, mortars and tongue pans are likely to represent waste material from a drinking establishment. The animal bone assemblage was also interesting and included the remains of at least two adult equids. Poultry and cattle were also present but of most interest was the considerable quantity of cat and dog bones. These included the skinned skull of a cat from the eastern end of the ditch which may well imply the proximity of a furrier to the site during the mid 19th century.

Robbing of the cemetery wall (Fig. 5)

- 7.4.6 Cutting into the backfilled deposits of the ditch at the eastern end of the site was the robber cut for the cemetery wall of St Mary's churchyard. Excavated in both Slots 1 and 2 this cut was originally given two separate context numbers and was recorded as [1251] (filled by [1250]) in the west facing section of Slot 2. In plan however the cut was given the number [1142] and was recorded as up to 9.5m in length with near vertical sides and a flat base. Measuring 0.86m in width and 0.85m in depth at 1.61m OD it contained two fills, with the primary deposit [1141] described as a loose, mid grey yellow sandy mortar deposit. At up to 0.14m in thickness, [1141] was overlain by [1137], a firm grey deposit of clay silt which contained pottery and clay tobacco pipe dating to between AD 1770 and 1840.
- 7.4.7 The removal of the wall in this area of the site clearly represented a significant change in terms of land boundaries, particularly when viewed in association with the backfilling of the ditch. Notably the wall was not removed at its eastern end however and in fact remained standing.
- 7.4.8 Cutting into [1137] was a further, slightly irregular east-west aligned cut [987] which measured 5.72m in length, 1.44m in width and 0.54m in depth at 1.99m OD. With sharply sloping sides and a flat base it was filled by [979], a mixed, loose deposit of brick and rubble which contained pottery dating to between AD 1775 and 1840. This linear cut is again believed to have been associated with the removal of the cemetery wall and most probably formed part of the same demolition episode as [1142]. The fill of [987] was distinct from [1137] however, and the far wider nature of the cut at this point suggested that whereas [1142] represented the original footing of the wall itself,

[987] depicted the far wider cut excavated in order to grub out the lower portions of the wall.

- 7.4.9 The only other deposit recorded in association with the robbing of the cemetery wall was [1058], a firm deposit of dark blue silty clay which was observed in Slot 3 and measured 4.12m from north to south, 5.00m from east to west and 0.22m in thickness at 1.80m OD. No diagnostic material was recovered from this horizon which was laid down following the backfilling of the ditch and the removal of the wall.

The construction of the Vaults (Figs. 5 & 6)

- 7.4.10 Cutting through the backfill of the ditch and the levelling layer [1058] observed in Slot 3 was a long linear east-west aligned construction cut. This cut must have extended over a distance of at least 63.25m, yet it was only observed in Slots 1 and 2 where it was given the number [1184], in Slot 3 where it was given the number [1190], and in Slot 5 where it was given the number [992]. Unfortunately it was not observed in Slot 4, yet the slightly irregular nature of the cut often made it difficult to accurately identify.
- 7.4.11 As with the earlier ditch, the construction cut was not fully revealed and could only be determined over a distance of 24.5m. At its widest point it measured 3.38m and was found to return at its eastern end along a north-south aligned axis, forming an 'L' shape in this specific area of the site. It extended up to 1.48m in depth at 1.68m OD and was recorded with a steeply sloping, stepped southern edge which descended onto a flat base where present. Both the northern side of the ditch and the eastern side along the north-south return extended beyond the limits of excavation.
- 7.4.12 The cut had been excavated in order to construct a series of 25 brick Vaults (or crypts), which ran parallel with the earlier cemetery wall and marked a marginal expansion of the church grounds towards the north onto land formerly associated with the Parsonage. At the base of the cut along the east-west alignment was a large mortared raft [324] which continued over a distance 63.25m at between 0.81m OD and 1.15m OD. Measuring up to 0.80m in thickness this solid block was 2.60m wide and formed the basis from which the vaults were constructed.
- 7.4.13 The Vaults were initially revealed at various stages of the excavation and for this reason were given two separate context numbers, [15] and [11]. Built from red and yellow frogged bricks bonded in an English pattern with a lime mortar, the main structure comprised a linear east-west aligned northern wall which was built on top of the mortar raft and extended along its length. At 0.45m in width this wall was paralleled by the southern wall which was built in a repeating curved pattern and provided each individual vault (or crypt) with an apsidal end. Separating each of the Vaults were north-south aligned walls which were bonded into both the northern and

southern counterparts, suggesting that the Vaults themselves were completed in a single build phase. This provided each individual crypt with internal dimensions of c. 1.81m from north to south, 2.27m from east to west and 2.65m in depth. Both the southern and internal dividing walls measured 0.35m in width.

- 7.4.14 The Vaults were numbered during the excavation in sequence from 1 to 25, starting with Vault 1 at the eastern end and ending with Vault 25 at the western end. The wall forming the eastern side of Vault 1 (and hence the end of the Vaults) continued southwards for 3.65m where it abutted and was joined into the remaining section of the Phase 3 cemetery wall [9]. This extension explained the 'L' shaped construction cut for the crypts at this end of the site and implied that the northern expansion of the cemetery was limited to the area now occupied by the Vaults and the sliver of land to the south. The eastern end of the original cemetery wall remained standing and the boundaries associated with the north-eastern corner of the churchyard therefore remained unchanged.
- 7.4.15 Across the top of the northern wall of the Vaults and the internal partition walls, an iron ringplate [1266] was attached at 3.16m OD. This ringplate extended along the length of the entire Vault structure, with each strip measuring 0.09m in width. The ringplate acted as a solid foundation for the construction of the angled springers or 'skewbacks' which formed the basis for the 25 barrel Vaults which covered each of the individual crypts. These vaulted arch roofs [198] were two bricks thick (arranged in a header formation) and extended up to 0.24m in thickness, with the crest of each Vault recorded at c. 3.83m OD. Each vaulted roof was recorded with dimensions measuring 2.55m from north to south, 1.80m from east to west and 0.68m in total depth. On either side of each of the roofs a small square brick vent was present which provided access to the two adjoining crypts. These vents were keyed into the brickwork above the springers and measured 0.34m from north to south and 0.46m from east to west with internal dimensions of 0.10m by 0.22m at c. 3.85m OD.
- 7.4.16 Following the introduction of the vaulted roofs, the final phase in the construction of the Vaults involved the raising of both the northern and southern walls to the top of the arches. Sitting directly on top of the northern wall, [201] again measured 0.45m in width and was constructed from the same brick type as used throughout the Vault structure. Bonded with the same lime mortar and again in an English pattern, this wall measured up to 0.48m in thickness as seen at 3.60m OD. The southern wall [209] mirrored its northern counterpart in terms of material used and bond pattern, measuring 0.35m in width and 0.65m in depth at 3.84m OD. Once these walls had been built, the Vault structure itself was complete. The final episode involved the deposition of [208], a levelling deposit of brick rubble and mortar which acted as a spandrel between the various arches and surrounded the upstanding vents creating a flat, solid surface. This levelling deposit was observed at a highest level of 3.81m OD.

Access into each of the individual vaults was provided by brick openings on the southern wall, and will be discussed in greater detail later on.

- 7.4.17 The construction cut was backfilled with mixed deposits of soft to friable silts, sands and clays described as mid blue grey brown in colour. Inclusions within these contexts comprised brick rubble and mortar along with fragments of chalk, slate and charcoal. Pottery was recovered from [1199] in Slots 1 and 2, [1189] in Slot 3 and [970] in Slot 5 suggesting a deposition date of between AD 1820 and 1900. Much of this material is likely to have been redeposited from the underlying ditch fill.
- 7.4.18 One final feature was noted in association with the construction of the Vaults and took the form of a trapezoidally shaped cut [1183] which was recorded along the western side of the wall which linked Vault 1 to the earlier cemetery wall [9]. The precise function of this cut remains unclear, although in impacting upon the backfill of the Vault structure's construction cut it clearly post-dated the initial building phase. It is quite possible that [1183] represented an early repair or final build episode associated with the bonding of the cemetery wall to the new Vault structure. The cut itself measured 1.32m from north to south, 1.10m from east to west and 0.27m in depth at 1.70m OD. It was filled by [1182], a soft blue deposit of yellow clay which contained a small amount of pottery dating to between AD 1770 and 1845.

Plate 2 – The Vaults. Looking North



Levelling layers

- 7.4.19 Following the completion of the Vaults, the land to the south of the new structure was raised with a sequence of levelling layers. These deposits were particularly prevalent at the western end of the excavation, an area which was subject to less subsequent truncation than the area to the east. In the east a single deposit [975] was recorded directly above the backfill of the robber cut for the cemetery wall. Described as a dark grey brown clay sand silt, this layer was 0.15m thick at 1.95m OD.
- 7.4.20 In Slot 5 a sequence of eight deposits was recorded, with these contexts mostly described as friable grey brown or grey yellow deposits of silt, sand and clay. The earliest layer in the sequence [921] sealed the backfill of the Vault construction cut and measured up to 0.28m in thickness at 1.39m OD. Containing pottery dating to between AD 1790 and 1830, this was overlain by [961], a section of the demolished cemetery wall which was 0.16m thick at 1.18m OD and extended 0.82m from north to south and 1.13m from east to west. A further section of collapsed wall [938] sealed [961] at 1.40m OD and was in turn overlain by levelling deposit [879] which was 0.15m thick at 1.55m OD and contained pottery dating to between AD 1820 and 1900. Also overlying [921] was [878], a spread of crushed mortar which was 0.13m thick at 1.55m OD. Context [861], an additional levelling deposit of crushed mortar and CBM sealed both [878] and [879] at 1.35m OD. This layer was in turn sealed by both a deposit of dark grey brown sandy clay [859] and another crushed mortar and CBM horizon [860] which was recorded at a highest level of 1.73m OD and contained pottery dating to the mid 19th century.
- 7.4.21 In Slot 6 five deposits which formed part of the same levelling sequence were observed at between 0.84m OD and 1.35m OD. Again described as yellow blue to brown grey deposits of mixed silts, sands and clays, the earliest horizon in the sequence [1007] measured up to 0.29m in thickness and contained pottery dating to between AD 1770 and 1900. This was sealed by [978] which contained pottery dating to between AD 1780 and 1830. Within this slot tip lines ([977] and [917]) were observed, suggesting that the levelling episodes were representative of dumping as a means of ground raising. Context [976] overlay [977] and was in turn sealed by [968] at 1.35m OD. Tip line [917] was next in the sequence and was sealed by deposit [915].
- 7.4.22 An identical deposit of blue grey silty clay which formed part of the same sequence was observed in Slot 7 [1151] and in Slot 6 [850] where it sealed [915]. Containing pottery dating to between AD 1810 and 1840 this layer measured up to 0.81m in thickness in Slot 7 where it was recorded at a highest level of 1.67m OD. In Slot 6 [850] was overlain by a further section of the collapsed / demolished cemetery wall [876] which measured 0.14m by 0.74m and 0.07m in thickness at 1.62m OD. Sealing the section of wall in Slot 6, the silty clay in Slot 7 and [859] in Slot 5 was a layer of

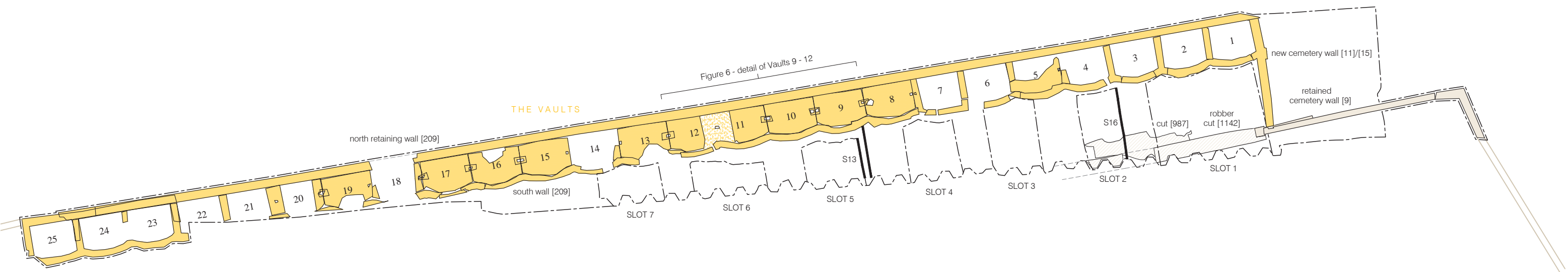
rubble which was respectively recorded as [1264] / [848], [1066] and [858]. Measuring up to 0.50m in thickness no diagnostic material was recovered from this layer which was then sealed by a further deposit of mid grey brown silty clay. This horizon was again observed in Slot 7 [1016], Slot 6 [824] and Slot 5 [840] and was up to 0.32m thick at a highest level of 1.70m OD. Pottery recovered from [824] has been dated to between 1810 and 1840.

- 7.4.23 The final deposits associated with this episode of levelling were recorded in Slot 5. Context [800] was described as a friable, dark yellow brown sandy clay and sealed [840] at 1.66m OD. The final horizon in the sequence [731] was recorded as a loose, dark brown grey sandy clay which was 0.27m thick at 1.64m OD.





PARSONAGE HOUSE

PARSONAGE GARDEN



ST MARY'S NEWINGTON CHURCH YARD

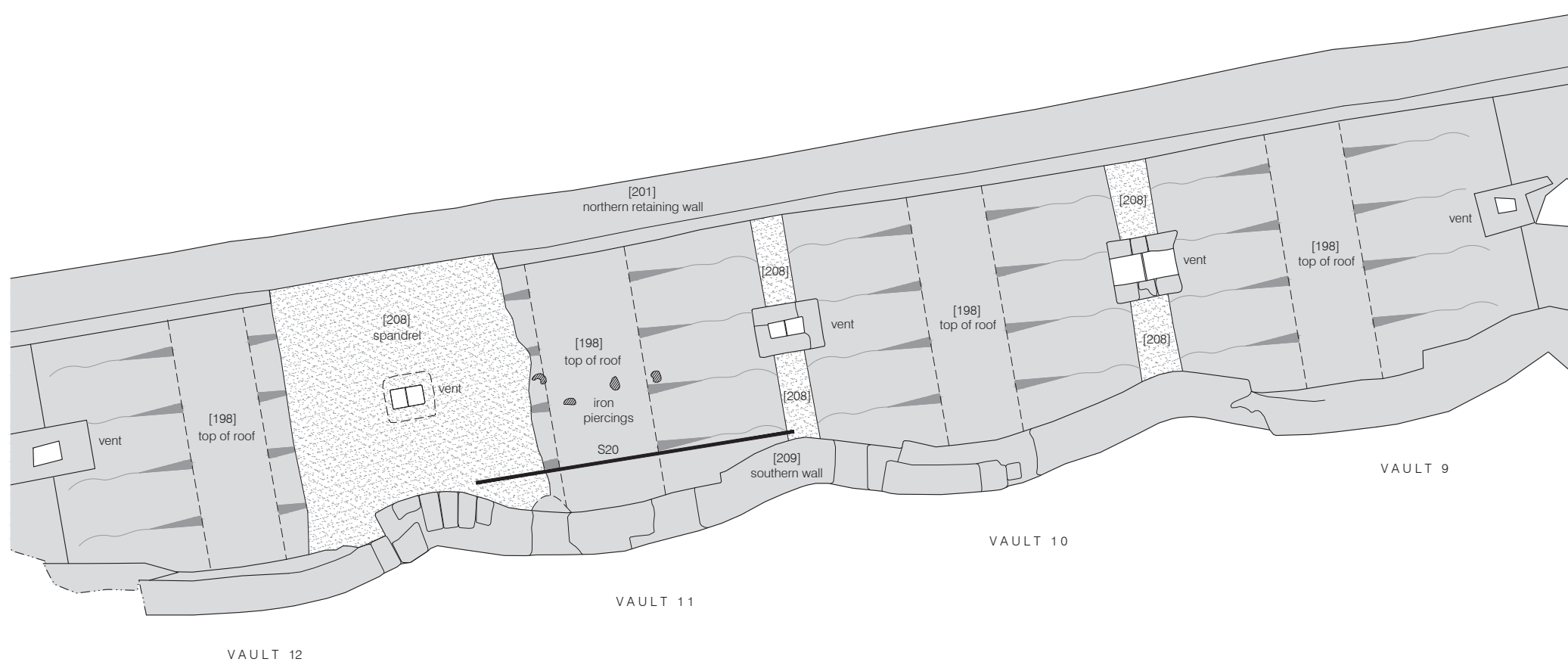
-  Retained cemetery wall
-  New cemetery wall & vaults

Building & wall outlines from First Edition OS Map, 1871 - 72

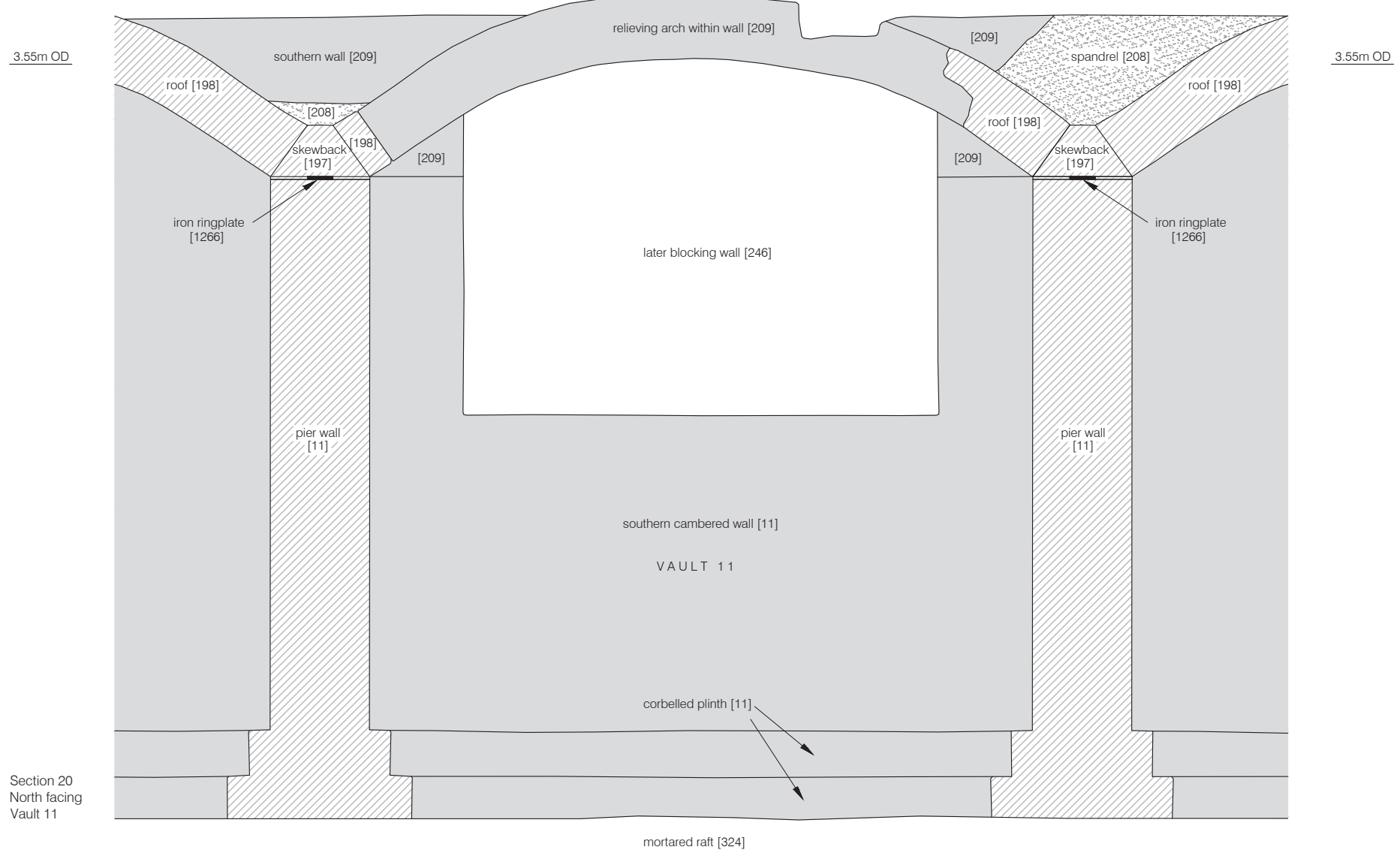


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Figure 5
Phase 4; Mid 19th Century
Plan 1:200 at A3



E W



- Vault masonry
- Vault masonry in cross section
- Spandrel



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Figure 6
Detailed Plan of Vaults 9 - 12 & Section 20
Plan 1:40 & Section 1:20 at A3

7.5 PHASE 5 – MID TO LATE 19TH CENTURY (Figs. 7-10)

7.5.1 Following the expansion of the cemetery and the construction of the vaults along with the associated episode of ground raising, the area to the north of the cemetery wall and to the south of the crypts began to be used for the purposes of inhumation. In total, 300 burials dating to the period between the construction of the vaults (AD 1834 – 1835) and the final order of cessation for the purposes of burial (AD 1854) were removed during the excavation process. Excavation of the inhumations was complex, and as a result attempting to define phases of burial and specific burial plots has proved difficult. Preservation was particularly poor in regards of the coffins and their associated furniture, meaning that in only one instance was a breastplate identifiable. Episodes of stacking had led to grave collapse with numerous skeletons situated directly on top of one another, whilst subsequent phases of re-cutting and inhumation had also led to the truncation of earlier burials. In addition, the later footings of St Gabriel's had impacted significantly on this area of the cemetery, and the requirement for sheet piling along the southern edge of the excavation area also led to further burial truncation.

7.5.2 What follows describes the use of this area of the cemetery belonging to St Mary's Newington during the mid to late 19th century. Full descriptions of the inhumations are presented in the human bone report (Appendix 2) whilst the associated coffin furniture and fittings are presented in Appendix 3. For the purposes of reference the age ranges of the burials, as defined in the human bone report, are as follows (percentage of burials within cemetery shown in brackets):

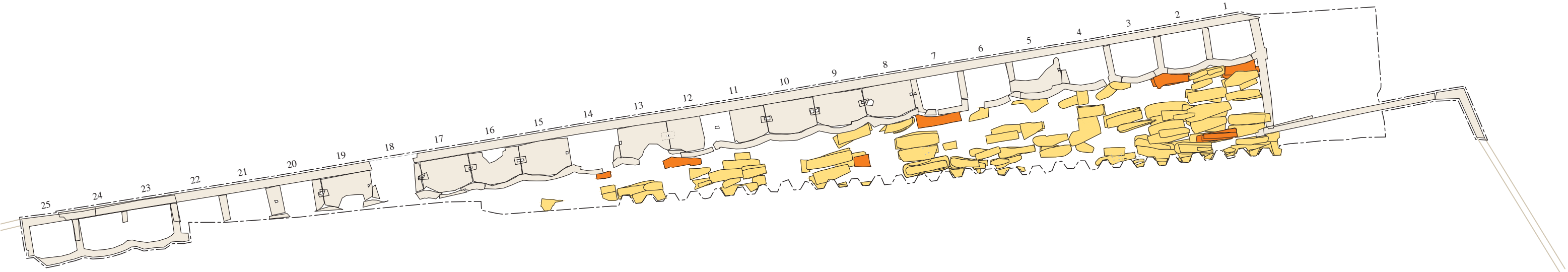
- Neonate = ≤ 1 year old (3.48%)
- Infant = 1-5 years old (7.28%)
- Juvenile = 6-12 years old (16.46%)
- Adolescent = 12-20 years old (1.27%)
- Young Adult = 20-35 years old (10.44%)
- Middle Adult = 35-50 years old (21.52%)
- Old Adult = 50+ years old (10.44%)

The gender of a large proportion of the inhumations could not be determined. When they could be sexed, 34.25% of the skeletons were identified as female and 25.57% as male. The vast majority of the burials were interred in the Christian tradition and were laid out in a supine and extended position within a coffin, with the head located in the west and the feet to the east.






PARSONAGE HOUSE

PARSONAGE GARDEN



ST MARY'S NEWINGTON CHURCH YARD

-  Grave cuts
-  Grave cuts containing skeletons subject to post-mortem dissection
-  Retained cemetery wall & vaults

Building & wall outlines from First Edition OS Map, 1871 - 72



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Figure 7
Phase 5; Mid to Late 19th Century
1:200 at A3

The initial burials (Fig. 8)

- 7.5.3 The earliest deposit encountered in regards of the cemetery was [1064]. Described as a loose, mid brown grey silt sand, this layer was observed in grid square 95/200 and as seen measured 1.52m x 2.64m and 0.29m in depth at 1.75m OD. No other deposits forming part of the same horizon were observed across the length of the excavation.
- 7.5.4 The very first burials were primarily situated at the western end of the excavation and comprised grave cuts [746], [778], [836] and [907]. Both [778] and [836] were badly truncated, but all four graves were observed at between 1.57m OD and 1.69m OD and extended up to a maximum 0.71m in depth in the case of [836]. The largest example [907] measured 2.04m in length and 0.74m in width. These primary burials appear to have been organised into east-west aligned rows, with [907], [778] and [836] forming one row, and [746] situated to the north. As throughout the entire excavation the graves were generally rectangular in shape with vertical edges and flat bases. Stacking appears to have been practiced from very early on, with both [907] and [836] containing a total of five burials ([1147], [1124], [1088], [984], [906] / [834], [846], [881], [890], [931] respectively), whilst [778] contained two ([780] & [798]). Grave [746] contained a single burial [745], an old adult male. Interestingly all of the burials within [907] were young adults and, although three were indeterminate, two were identified as female. Both of the skeletons within [778] were mid adults, at least one of which was female, whilst [836] contained four young to mid adults, at least two of which were female. The final inhumation within this stack was an adolescent [834], also possibly female.
- 7.5.5 Only one early grave [983] was identified within the central area of the excavation, although this cut was heavily truncated by the modern shoring. The grave contained the remains of two skeletons ([981] & [1008]), both of which were juveniles.
- 7.5.6 Towards the eastern end of the excavation in grid square 95/200 the burials were somewhat different. One of the earliest graves [1035] contained the remains of an infant [1033] and was directly overlain by [952], another grave cut which again contained an infant inhumation [950]. In all likelihood, these two cuts most probably formed the same grave, measuring just 1.14m in length, 0.54m in width and 0.48m in depth at 1.71m OD. A miniature bone fork was recovered from this grave and had been buried with [1033]. As with the burials to the west, the graves in this area again appeared to be aligned in rows, with [1235] situated to the west of [1035]/[952] and containing an infant burial. Directly above [1235] was another grave cut [1195] which, as with the grave to the east, most probably formed part of the same stack as [1235]. Cut [1195] contained three inhumations ([1196], [1207] & [1215]) comprising two mid adults and one young adult. Two of these burials were identified as female and the young adult [1215] had evidence of a severe hip dislocation or fracture.

7.5.7 The row to the north of [1035]/[952] and [1235]/[1195] aligned with the row to the west comprising [836], [778] and [907]. This row consisted of grave [1132] (which contained a mid adult female [1144] along with a neonate [1129] and an infant [1163]) and grave [1217] (which contained a single juvenile [1218]). A further east-west aligned row to the north comprised grave [1057] (which contained four adults – [1021], [1036], [1045] & [1055]) and grave [983] (which contained two juveniles). All of the graves in this area of the site were observed at between 0.98m OD and 1.80m OD and measured up to a maximum of 0.90m in depth.

Secondary burials (Fig. 8)

7.5.8 A small number of secondary burials were recorded which appeared to have been interred slightly later than the primary inhumations. At the western end of the site cut [1049] truncated the southern side of earlier grave [907] and contained two adult inhumations ([1059], [1071]), one of which was a young adult [1071]. To the east grave [796] also truncated the south side of [836] and contained three adult burials ([794], [837] & [929]). Burial [929] was identified as a young adult of petite stature. Both of these secondary graves were observed at between 1.56m OD and 1.65m OD and again appeared to be aligned in an east-west row, slightly offset and to the south on the earlier burial line which they truncated. The fact that they cut earlier burials suggested that an effort was being made to squeeze burials into any available space.

7.5.9 At the eastern end of the excavation a similar situation was observed. Grave [1084] cut the northern side of earlier grave [1195]/[1235] and extended up to 0.49m in depth at 1.65m OD. This grave contained six burials ([966], [945], [1054], [1026], [1073] & [1180]) which comprised two juveniles, a young adult, two mid adults and an old adult male. Grave cut [947] has been interpreted as forming part of the same stack which appeared to have been squeezed into the area between two previously established burial rows.

Cemetery soil – [192]/[471], [574], [651], [910]

7.5.10 Sealing the early graves and observed along the length of the excavation area was a deposit of mid grey brown sand clay silt which contained inclusions of oyster shell, and fragments of CBM and charcoal. Observed at between 1.99m OD and 2.34m OD this deposit measured up to 0.39m in thickness and contained pottery dating to between AD 1820 and 1850. Small finds recovered included a bone domino gaming piece and a halfpenny token for 'Kellys patent sadlery & c'.

Third phase of burials (Fig. 8)

- 7.5.11 A number of graves were observed at the western end of the excavation area and cut through the horizon of cemetery soil. Recorded at between 1.83m OD and 2.09m OD, these graves appeared to represent intensification in terms of burial density, with cemetery space utilised to its full potential and stacking a most common occurrence. Directly overlying earlier graves [907] and [1049] was [737], the position of which may have represented an attempt to re-cut [907]. This grave contained two burials, an adult female [735] and a young adult female which displayed possible evidence of rickets [736]. To the west of [737] and forming part of another east-west aligned row was [1024], a truncated grave cut which contained the remains of two adult burials ([1022] & [1039]). The final grave cut in this row [1091] to the west of [1024] contained five burials, three of which were young adult males ([1102], [116] & [1128]). At the base of the stack was an adult [1126], whilst the final burial was a young adult female [1089]. Positioned within the pelvic region of [1089] was [1090], a neonate. This suggested that [1089] had died during childbirth and was buried with [1090] still situated within the womb.
- 7.5.12 The final two graves forming part of this group were of particular interest. Situated right up against the vaults, and hence forming another row, they both contained numerous stacked inhumations, many of which had been subject to post-mortem dissection. Grave [716] contained four burials, the lowest of which [732] was an old adult female. This individual was overlain by [706], a mid adult who had undergone a craniotomy and post-mortem dissection of both the left femur and a rib shaft. This skeleton also displayed evidence of a severe infection in the left leg. Above [706] were the remains of an infected partial right leg and foot, which most probably belonged to [680], another mid adult which had also been subject to post-mortem dissection of the mandible and left femur. This inhumation also displayed evidence of infection in both the left and right femora. The final burial within this stack was [654], an adult who had been subject to post-mortem dissection of both the left and right femurs.
- 7.5.13 To the west of [716] was [741], another grave stack which contained five adult burials. At the base of the stack was [884] which had undergone post-mortem dissection of the distal end of the left femur. This was overlain by [887], a burial which had been subject to post-mortem dissection of the distal end of the right femur. Burial [753] rested above [877] and displayed evidence of infection within the left tibia. The final two burials within [741] comprised [739] and [740], the last burial which has been identified as female.
- 7.5.14 To the east of [716], grave [627] contained a single infant inhumation [626] and was just 0.10m deep at 1.90m OD. Grave [560] appeared to align with [737] and also contained an individual adult inhumation [559].

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- 7.5.15 Cutting the cemetery soil within grid square 85/200 were a series of graves aligned in rows and observed at between 1.56m OD and 1.97m OD. Right up against the vaults was [813], a slightly offset north-east south-west aligned grave which was 0.85m deep and contained three young to mid adult inhumations, two of which were female ([698], [699] & [828]). To the east of [813] was [823], a grave which was again up against the vaults and contained three adult burials ([788], [789] & [822]). Subsequent grave cuts [641] and [558] are believed to have formed part of the same stack, with [558] containing a young adult female [556]. To the south of these two graves was [790], which formed another row of inhumations and measured 0.66m in width, 1.70m in length and 0.72m in depth at 1.97m OD. The size of this grave was quite unusual given the fact that it contained a single infant inhumation [792]. To the west of [790] and forming part of the same row was grave [667], although this cut was so heavily truncated that no skeletal remains were recovered from it. This situation was repeated to the south, where grave [901] was heavily impacted by the steel shoring.
- 7.5.16 In grid squares 90/200 and 95/200 attempts to maintain the earlier organisation of rows continued, although overlaying and intercutting again suggested that space within the cemetery was already becoming an issue. A total of 13 graves were identified in association with this phase of burial and all survived at between 1.47m OD and 2.01m OD. Along the shoring to the south, four graves were recorded: [769] (containing [767], a juvenile which had been subject to a post-mortem skull dissection, and [805]), [993] (containing [994], a juvenile with an abscess on the mandible) and both [1108] (containing [1109]) and [1104] which contained three adults ([1105], [1133] and [1169]). A further row to the north aligning with [901] comprised two graves; [689] which contained three burials ([687] – a juvenile, [718] – an infant, and [719], an adult) and [801] which held two inhumations ([662] – an adult and [802] – an infant).
- 7.5.17 To the north of this row and aligning with [760] and [667] to the west were a further five graves which were directly above an earlier row of burials. Grave [1070] contained two adults, [1082] and [1067], a young adult female described as a petite individual with possible evidence of corset deformation on the ribs, whilst [634] contained three inhumations. At the base of this stack was [1099], a young adult female, which was overlain by an old adult male [632]. Interestingly, the final burial observed in this grave was that of an infant [631], which was noted by the excavator as appearing to rest within the arms of [632] and both skeletons are recorded as buried in the same coffin. Also within this row were [1063] which contained two adult burials ([1061] & [1065]) and graves [940] and [1031]. The relationship between these final two intercutting graves could not be determined. Grave [940] contained two adult inhumations ([853] & [920]) as well as a juvenile [883], whilst [1031] contained three adults ([1029], [998] & [997]).

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- 7.5.18 Two graves were present against the edge of the vaults, with [777] containing two juveniles ([762] & [775]). Grave [704] represented a particularly large stack and contained six individuals. At the base was [815], an adult male who was overlain by another adult [748]. Above this was [734], a mid adult who had been subject to post-mortem dissection of the fibula shaft. Next in the stack was [722], a mid adult who had also undergone post-mortem dissection of the skull, right femur and left tibia. This inhumation was overlain by an adult female [702] who had also been subject to post-mortem dissection of both the left and right femur and a craniotomy. The last burial in the grave was [673], a juvenile.
- 7.5.19 Burial only started at the eastern end of the excavation area during this tertiary phase of inhumation and one of the earliest graves [1115] contained a single young adult [1113]. The initial burials within this area often consisted of individual inhumations, and the graves were observed at between 0.84m OD and 2.34m OD. Along the southern edge a row of graves comprising [1241], [936] and [1240] was heavily truncated by the shoring, yet [936] was found to contain two adults [933] & [948]) and a juvenile [1078], whilst [1241] contained two adults ([1243] & [1244]).
- 7.5.20 To the north and aligning with [993] to the west were a further two graves which each contained two adult burials. Cut [609] held [607] and [649], whilst [1117] contained [1139] and [1119], a young to mid adult male which had a healed fracture on the right ulna and whose sacrum was fused to the right pelvis. To the north of [609] was [1006], a small grave which contained a juvenile [1004].
- 7.5.21 Aligning with grave [1115] and forming part of the same row were a further two graves. Cut [871] contained a single adult, whilst small grave [231] contained two neonates ([229] A & B), perhaps suggesting that these individuals were twins.

Fourth phase of burials (Fig. 8)

- 7.5.22 At the western end of the excavation area a series of five graves ([671], [960], [534], [526] & [572]) were recorded overlying earlier graves [737] and [1024]. Aligned in a one row, these graves contained single individuals, with [572] and [534] containing adults, whilst [671] contained a juvenile [669]. A gold finger ring was recovered from the left hand of [570] in [572]. Grave [960] held two adults ([967] & [958]), whilst [526] contained an adult [759] and an adolescent [524]. Observed at between 1.53m OD and 2.06m OD the inhumations appeared to represent a less intense use of this area of the cemetery, presumably because it was already beginning to get quite full. Grave [572] actually cut [534], yet the close alignment of these two features suggested that they belonged to the same phase of burial.
- 7.5.23 Within grid square 85/200 a series of six graves were observed at between 1.67m OD and 1.99m OD. Graves [894] and [887] formed one row, although both were heavily

truncated by the shoring. Grave [894] was positioned directly over earlier grave [901] and contained an adult inhumation [918], whilst [887] contained juvenile [885]. To the west of [894] heavily truncated grave [764] contained no identifiable human remains. Also truncating an earlier grave [790] were two further graves which formed another row. Cut [666] contained a mid adult female [679] and a neonate [678], whilst [486] contained two adults. The lower inhumation [488] was a young adult male with a severe infection of the left humerus. This individual was overlain by [484], a mid to old adult female who had been subject to post-mortem dissection in the form of a craniotomy. Along the edge of the vaults and directly above [813], grave [568] contained two adults, the lower of which [587] displayed evidence of a treponemal disease.

7.5.24 Only four graves were recorded in association with this phase of burials in grid squares 90/200 and 95/200. Individual burials were present within graves [585] and [539] and respectively comprised a young to mid adult female with a withered right arm [564] and a juvenile to adolescent with deformation of the cervical vertebral articular facets [537]. Whilst [585] represented a possible re-cut of [1031], [539] also directly overlay [1070]. All four of the graves in this area of the site were observed at between 1.59m OD and 2.13m OD. In the case of [854] a total of five burials were observed within the grave which was 0.70m deep. During excavation each of these burials an individual cut number was given, although it was clear that they were in fact all within a single stack. The primary burial within [854] was an old adult male who appeared to have a healed fractured rib. Overlying this was [771], a mid adult male whose right femur was fused to the acetabulum, possibly as a result of femoral neck trauma. Adults [727] and [623] were next in the sequence, with [598], a mid adult with a severe infection of the right tibia, representing the last burial within the stack. The other grave in this area [925] contained two adults ([903] & [926]), and as with [854], inhumation [903] had been given a separate cut number during excavation.

7.5.25 Although there was some evidence for an attempt to maintain an order to the burial sequence at the eastern end of the excavation, with graves [965] and [399] seemingly aligned in a row along the southern edge, by this stage the inhumations already appeared to be becoming slightly more haphazard. Grave [399] represented a particularly large cut which, although truncated, measured 1.72m in width, 1.38m in length and 0.54m in depth and contained two grave stacks. The southern stack comprised adults [243] and [291], whilst at the base of the northern stack was a young adult [311] who displayed possible evidence of either rickets, brittle bone disease or acondroplasia. This burial was overlain by [294], a mid adult female, who was in turn sealed by [78]. This final burial consisted of two mid adult female inhumations which were so intermixed they could not be separated during excavation.

7.5.26 Both graves [965] and [479] contained two burials with [965] holding two adults ([963] & [1202]), and [479] containing two juveniles ([473] & [481]). Grave [899] contained a stack of four adults ([1075], [1077], [900] & [897]). One final burial which can be associated with this phase of inhumations concerns infant [575]. Although a coffin was present [576] no grave cut could be found in association with this burial, which perhaps suggests that the inhumation was not part of a stack, but instead represented a single grave.

Fifth phase of burials (Fig. 8)

7.5.27 The final graves at the western end of site comprised [492] and [498] which were found at between 1.95m OD and 2.01m OD. These two cuts overlay fourth phase grave [572] and respectively contained burials [491] and [497], both of which were juveniles. In grid square 85/200 the last inhumations relating to the cemetery comprised graves [725] and [614]. Grave [614] may have represented a re-cut of earlier grave [666] and at a highest level of 1.83 contained three burials, the lowest of which was a juvenile [629] overlain by two adults ([541] & [509]). Recovered in association with [629] was a coronation token of William IV. To the south of [614] grave [725] contained a single mid adult female [750].

7.5.28 In grid square 90/200 two graves were recorded within this burial phase at between 1.86m OD and 2.14m OD. At 0.45m in depth grave [605] contained a young adult [620] and a juvenile [603] whilst infant [636] is also likely to have been interred within the upper reaches of the stack. A hair clip was recovered in association with [603]. Grave [550] contained a juvenile [549] which showed evidence of a possible fracture and infection on the left humerus, whilst the right humerus similarly displayed signs of infection.

7.5.29 At the eastern end of the excavation only three inhumations were recorded in association with this phase of burials. All three were located along the southern edge and were observed at between 1.65m OD and 1.90m OD. Very little of [863] was revealed meaning no skeletal remains were recovered, although the position of the cut above earlier grave [899] suggested a possible re-cut. Grave [914] contained adult inhumations [912] and [923], whilst [875] contained skeleton [873] which had a severe infection of both the left and right femora and possibly of the right humerus.

Sixth phase of burials (Fig. 8)

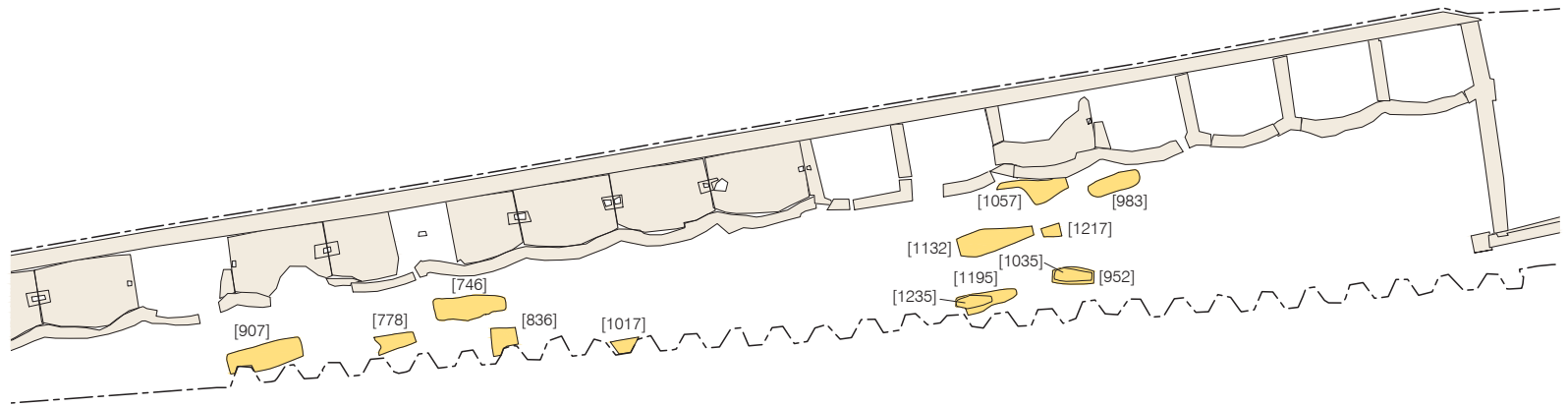
7.5.30 In grid square 90/200, [738] contained a total of five inhumations. Measuring 2.46m in length, 0.70m in width and 0.80m in depth, the grave was recorded at a highest level of 2.13m OD. At the bottom of the stack, old adult individual [696] displayed evidence of a possible abscess and infection on the mandible. A severe dislocation of the left

elbow had also led to subsequent deformation of the joint surfaces. The remaining burials within the grave were all adults ([520], [578], [617] & [695]).

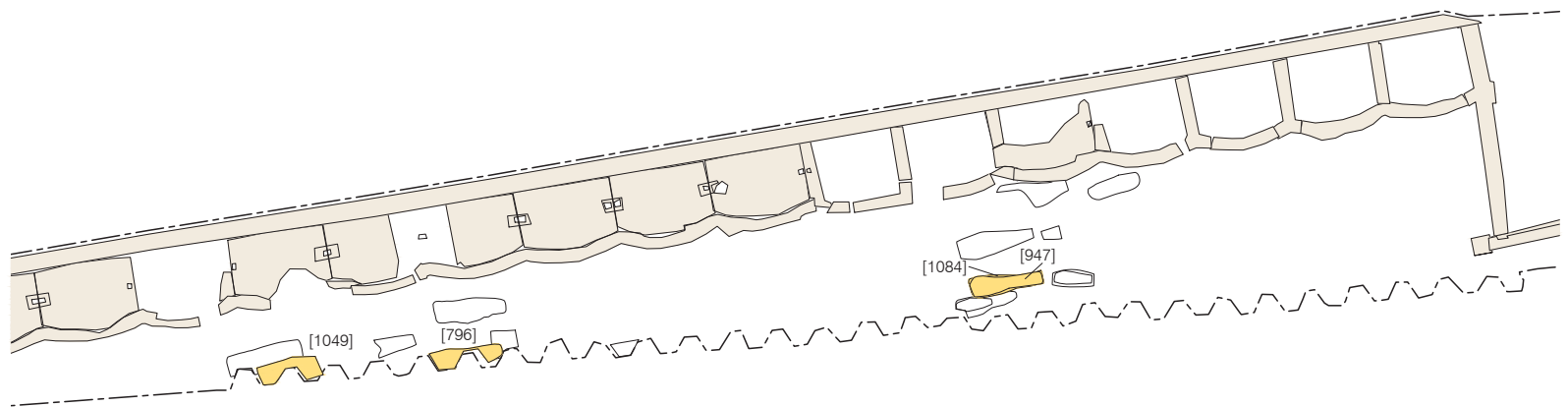
- 7.5.31 At the eastern end of the excavation area two graves were recorded at between 1.96m OD and 2.24m OD. Grave [1044] contained a young adult female [1042] whilst [865] contained adults [851] and [830].



First Burials



Second Burials



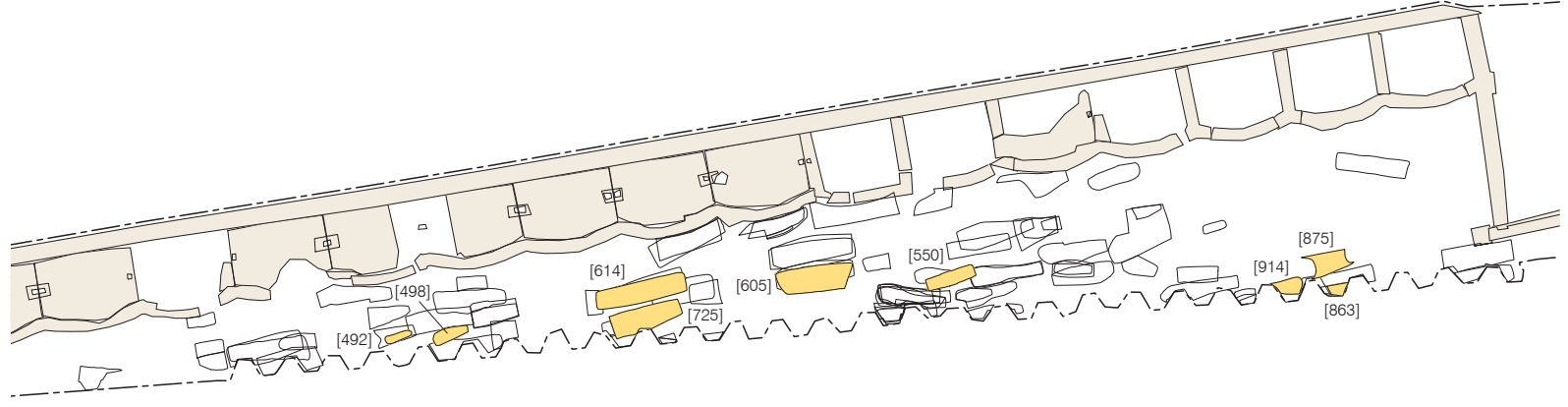
Third Burials



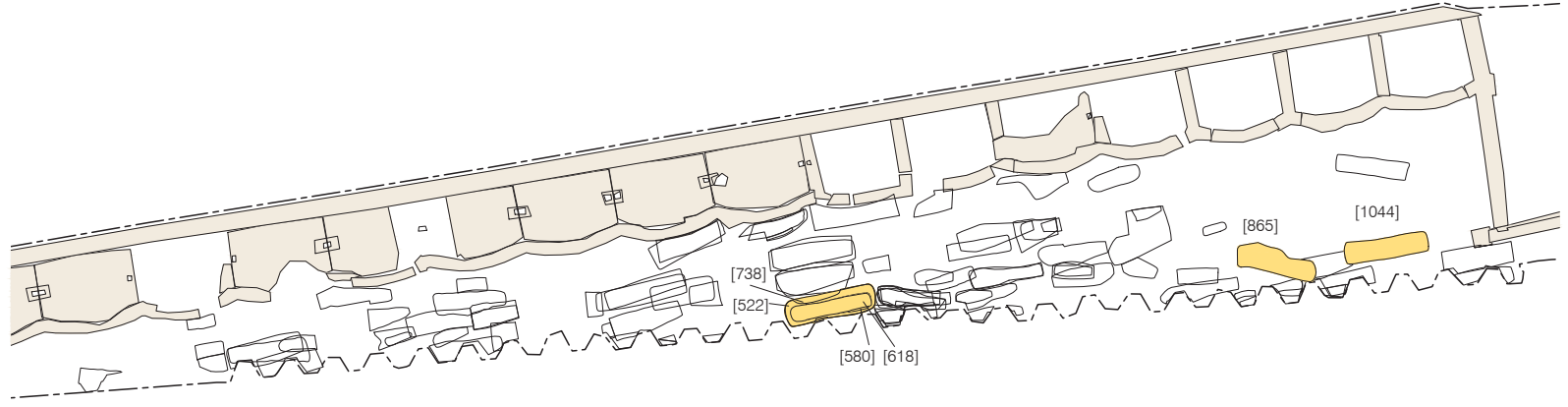
Fourth Burials






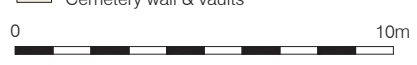
Fifth Burials



Sixth Burials



-  Grave cuts
-  Grave cuts containing skeletons subject to post-mortem dissection
-  Cemetery wall & vaults



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Figure 8
Phase 5; Mid to Late 19th Century
First to Sixth Burials
Plan 1:200 at A3

Seventh phase of burials (Fig. 9)

7.5.32 From this point on in the sequence the inhumations were limited to the eastern end of the excavation. Burial in this area of the site is likely to have been intense with graves excavated in quick succession. Stratigraphically the intercutting nature of the grave cuts has been taken into account however, and this is reflected in regards of the burial sub-phases. Grave [693] was 0.94m deep at 2.34m OD and contained a mid adult male [990] and a juvenile [691].

Eighth phase of burials (Fig. 9)

7.5.33 Grave [743] directly overlay earlier grave [865] at 1.95m OD which implied that it was a possible re-cut. The similar offset north-west south-east alignment as the earlier cut may however suggest that it did in fact form part of the same stack. Two burials were recorded within [743] and included an old adult with a possible abscess in the mandible [818] and an infant [507]. A similar situation was observed in regards of grave [956] which overlay [965] at 2.34m OD. These may again have formed part of the same grave, and a single adult inhumation [954] was observed within the cut. To the north of [956], grave [715] contained a single adult inhumation [713]. This grave had been truncated by a later inhumation at the western end however, and the head of [713] had been completely removed. Immediately adjacent to the northern side of [715] was a further grave [530] which was observed at a highest level of 2.29m OD. Although these two graves intercut, their relationship could not be determined Three inhumations were interred within [530] and included adults [1094] and [528] along with juvenile [1081].

Ninth phase of burials (Fig. 9)

7.5.34 Only two graves were recorded in association with this phase and were observed at between 2.09m OD and 2.34m OD. Grave [1014] cut earlier grave [715] and contained an old adult male with a healed fracture of the left fibula [1012]. Grave [943] was directly above [956] but survived in a poor condition. Although the fill [941] contained human remains, only disarticulated bone was recovered.

Tenth phase of burials (Fig. 9)

7.5.35 Recorded in association with this phase of burial were a number of levelling layers ([467], [267] & [366]) which were observed at between 1.62m OD and 2.16m OD. Layer [267] sealed graves [530], [715], [743], [983] and [1115] yet heavy truncation as a result of re-cutting and subsequent grave intrusion made interpretation difficult. It is therefore quite possible that these horizons represented redeposited contexts within intercutting graves, and they were thus removed in spits in order to identify graves

which were potentially cut from higher up in the sequence. A total of twelve graves were recorded in association with this phase, and all were observed at between 1.86m OD and 2.38m OD, extending up to a maximum of 1.44m in depth. Along the southern edge grave [708] directly overlay [943] and again only disarticulated remains were recovered from the fill of this cut [707]. To the west grave [711] cut earlier grave [743] and contained a stack of five inhumations including adults [684], [562] and juvenile [543]. The upper burials were both neonates, numbered [495] (which had a cut on the left frontal of the skull) and [494].

7.5.36 To the north of [708] was grave [298], which overlay [530] and contained a juvenile [336], a mid adult [306], and an adult with a drill hole in the right ilium and a healed fracture of the right radius [297]. The final two burials within this grave were both infants ([299] & [300]). A further row of graves to the north of [298] comprised [235], [266] & [287], all of which contained individual inhumations. Adolescent [233] was in [235], whilst mid adult male [264] in [266] had an abscess on the mandible and a healed fracture of the left tibia.

7.5.37 The final row within this area comprised four graves situated right up against the Vaults. Both [411] and [196] respectively contained an individual adult [409] and a juvenile [194], whilst [123] contained an infant [181] and a juvenile [122]. Grave [165] however was subject to stacking. It also seems likely that grave [126] formed part of the same stack as [165] and has therefore been included within this grouping. At the base of the grave was an adult [435] which was overlain by another adult [432] which had no associated skull. Recovered in association with [432] were two copper alloy crucifixes and a copper alloy chain. Above [432] was another adult [424] which was beneath [420], another adult which had been subject to post-mortem dissection of both the left tibia and right humerus. The final burials within the stack were adults [163] and [124]. Situated between [411] and [165] was slightly offset grave [403] which contained an adult [401]. Immediately to the south of [411] was [430], which contained adult [428].

Eleventh phase of burials (Fig. 9)

7.5.38 At the eastern end of the excavation a series of nine graves were recorded at between 1.68m OD and 2.34m OD with five containing single inhumations. Graves [217], [377], [398] and [613] all contained adults, and skeleton [215] in [217] displayed evidence of a possible infection in the right ulna. Grave [261] contained a juvenile [259]. Grave [677] also contained a juvenile [1205] along with some disarticulated remains, whilst truncated grave [390] held adults [360], [370] and [385]. Skeleton [385] displayed evidence of a severe fracture of the left leg. Some alignment was present here, with [677] and [615] potentially forming a row to the south. Grave [377] lay directly over earlier burial [1115] and formed a row with [261], [217] and [390].

Grave [394] was slightly offset to the south of this row however, and contained a total of seven burials. At the base of the stack were two adults [1165], which were so intermixed that they could not be separated during excavation. These were overlain by [1149], a mid adult female which was in turn beneath infant [1162]. Above [1162] was an old adult male [1135] which lay beneath juvenile [1134]. The final burial within the stack was a neonate [758]. Cutting earlier burial [196] right up against the vaults was [102]. This grave survived in a particularly poor state, but the fill [101] contained quantities of disarticulated human bone, suggesting that it once contained at least one adult, a juvenile, an infant and a neonate. Recovered from the backfill of [196] was the only breastplate retrieved from the cemetery which read as follows:

*“Will,
Thorowgood
Brewingtier
Died 25 Dec
1843
Aged 3 mths”*

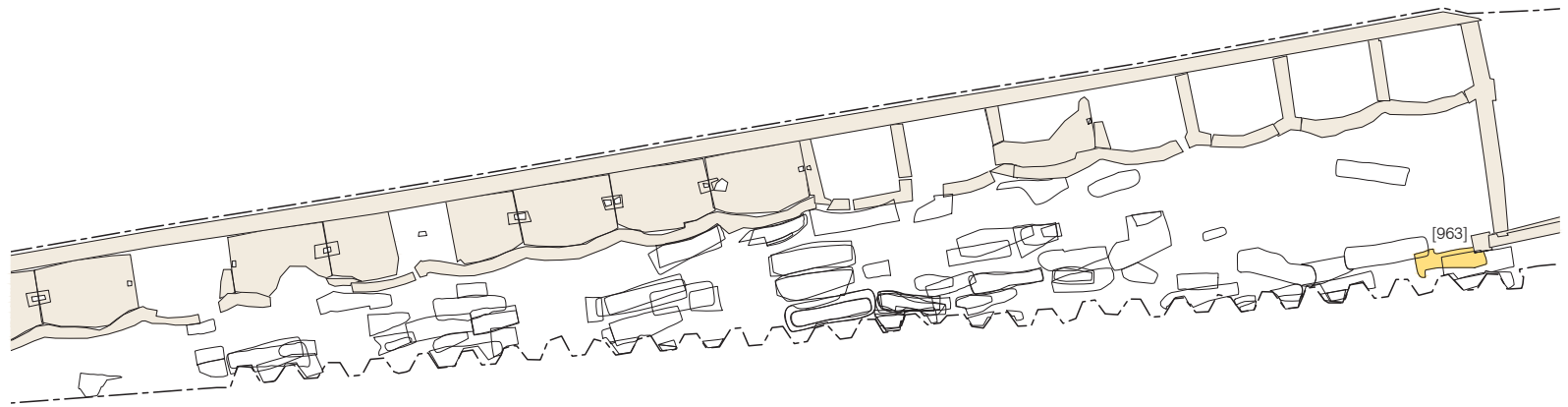
7.5.39 As there were no neonates within [196] it seems most likely that the breastplate recovered from [196] did in fact relate to the neonate within [102].

Twelfth phase of burials (Fig. 9)

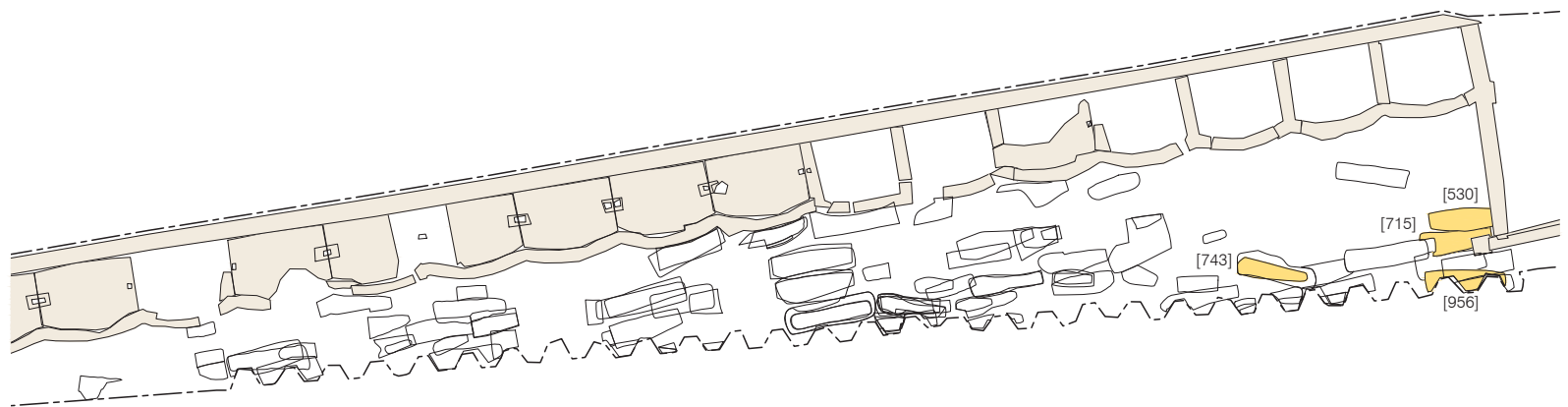
7.5.40 A total of seven graves were recorded in association with this phase of inhumation and extended up to a maximum of 0.76m in depth at between 1.61m OD and 2.41m OD. By this stage burial was certainly more haphazard with graves being fitted in wherever possible, although the position of grave [169] directly over earlier grave [235] suggested re-cutting. Five graves contained single individuals, with both [169] and [844] containing adults. A tortoiseshell comb was recovered from [169] and belonged to individual [167]. Truncation had separated graves [596] and [584] which formed the same cut and also contained the remains of an adult. Graves [757] and [239] respectively contained juveniles [755] and [237], with [755] displaying evidence of rickets. Stacking was still taking place at this stage, and grave [660] held adults [645] and [658]. Grave [365] was situated in the very north eastern corner of the cemetery and at the base of the stack was an old adult who had suffered from severe osteo arthritis [353]. This skeleton was overlain by a mid adult female [351] who was missing a skull. The final inhumation [329] was a young adult male who had been subject to a post-mortem craniotomy. The absent skull in relation to [351] was most interesting, particularly as this grave had not been truncated.



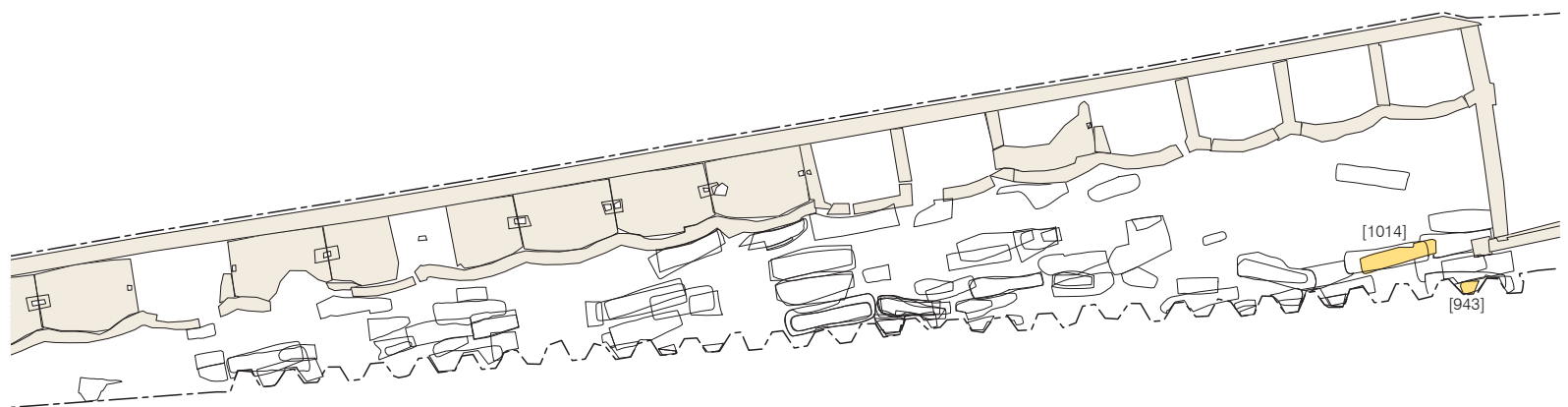
Seventh Burials



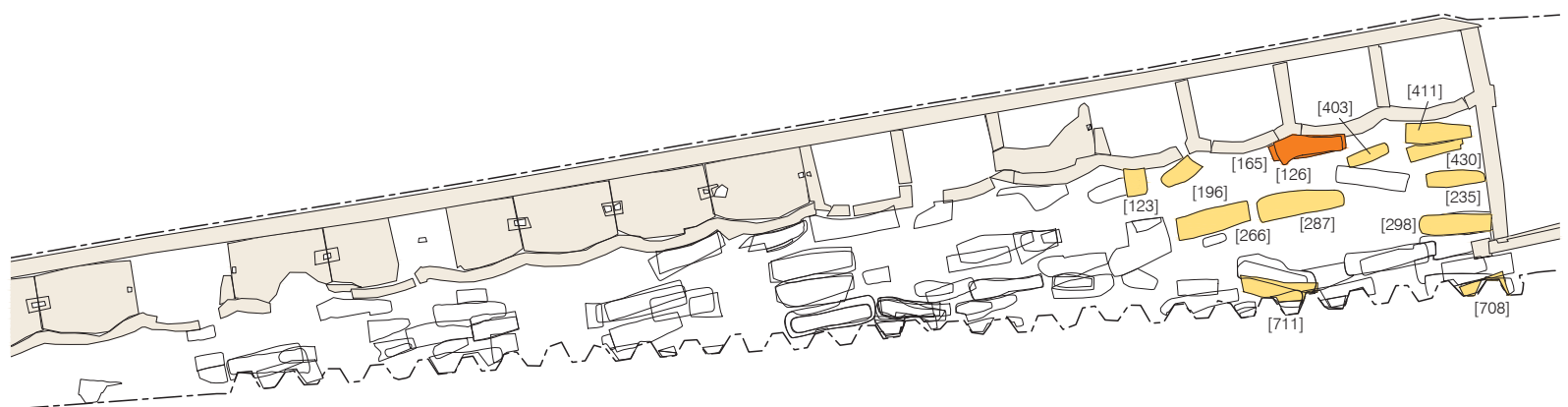
Eighth Burials



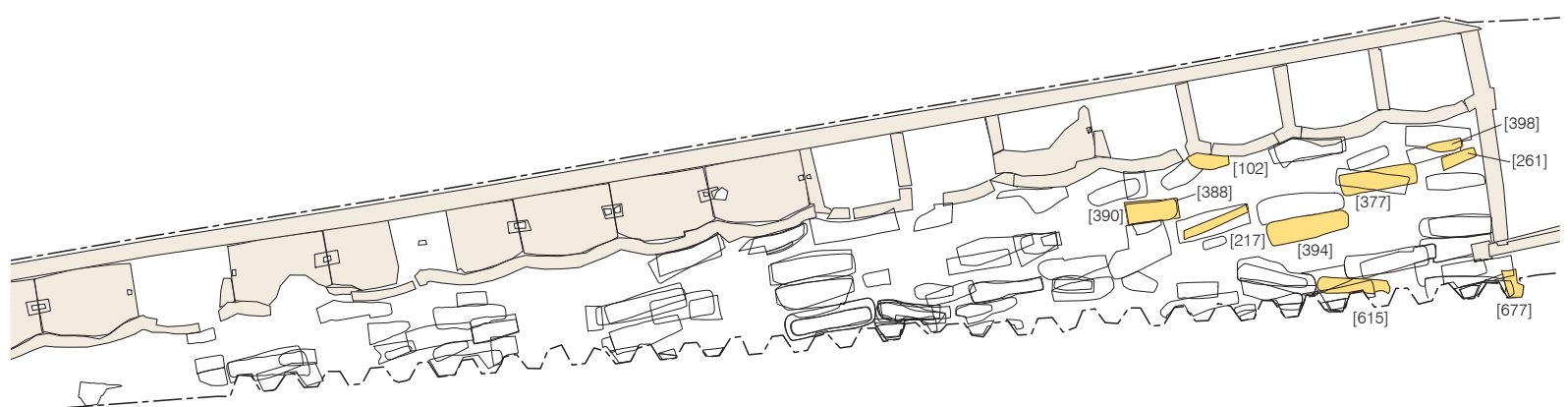
Ninth Burials



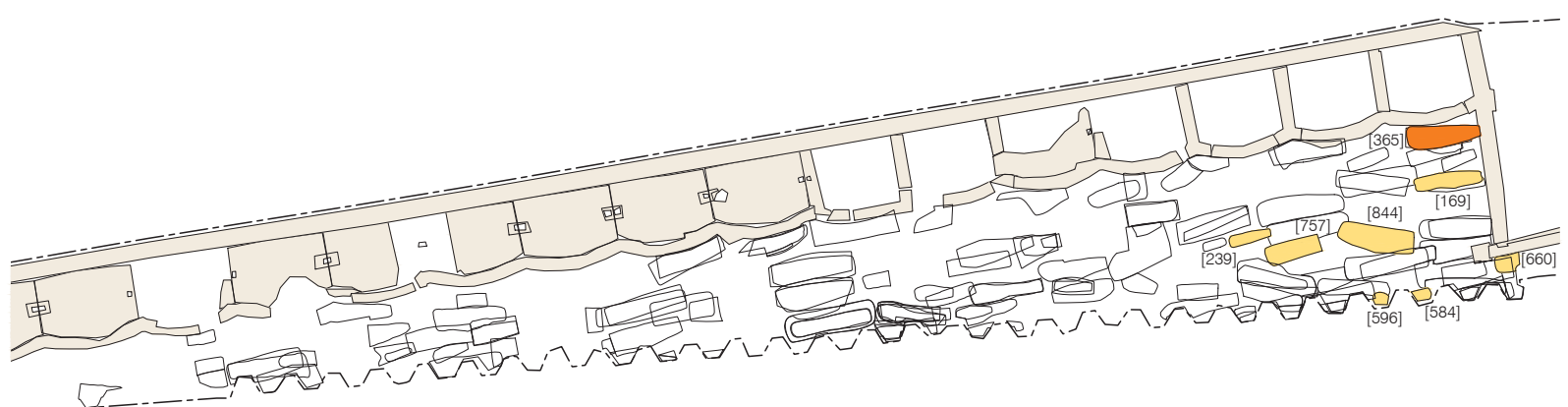
Tenth Burials






Eleventh Burials



Twelfth Burials



-  Grave cuts
-  Grave cuts containing skeletons subject to post-mortem dissection
-  Cemetery wall & vaults

0 10m

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Figure 9
Phase 5; Mid to Late 19th Century
Seventh to Twelfth Burials
Plan 1:200 at A3

Thirteenth phase of burials (Fig. 10)

7.5.41 The thirteenth phase of burials comprised six graves which were recorded at between 1.96m OD and 2.32m OD. Two of these graves contained single burials, with [786] holding a young adult male [784] and [161] holding a mid to old adult. Grave [161] was situated above earlier grave [365] suggesting a possible re-cut, and the associated skeleton had been subject to post-mortem dissection in the form of a craniotomy and a potential alteration of the left tibia. Situated above earlier grave [584]/[596], truncation had again separated cuts [518] and [591] which also represented a single grave and contained the partial remains of two adult individuals. Grave [463] was located in the south-eastern corner of the excavation area and contained adults [468] and [462], along with a juvenile [455]. Graves [104], [106] and [227] belonged to the same stack and contained juveniles [225], [88] and [86], the latter of which had a deformed mandible. The largest grave [544], which appeared to be a re-cut of [1014] contained a total of six burials and extended up to 1.03m in depth. At the base of the stack was an old adult [826] who had been subject to post-mortem dissection in the form of a craniotomy. Both the sternum and right humerus proximal shaft had also been cut. Overlying [826] was [825] a mid to old adult who had also undergone post-mortem dissection of the midshaft femur and midshaft right tibia. This inhumation was overlain sequentially by adults [552], [573], [447] and [211]. The final burial [211] had also undergone a post-mortem craniotomy and the skull appeared to have been reattached with the use of copper pins or hinges. Cut [786] was located directly above earlier grave [844] which may also indicate a re-cut.

Fourteenth phase of burials (Fig. 10)

7.5.42 By this stage many of the burials were being crammed in at the very eastern end of the excavation. Only four graves were recorded in association with this phase, with individual adults present within graves [504], [478] and [405]. All four cuts were observed at between 1.72m OD and 2.26m OD and [61] was found to contain both a young adult male [59] and a neonate [70]. Notably [478] directly overlay earlier grave [613], suggesting a possible re-cut of the plot.

Fifteenth phase of burials (Fig. 10)

7.5.43 Only two graves were associated with this phase and [466] was directly above [478]. This implied that [466] formed part of the same grave or was another re-cut. At 0.29m deep at 2.24m OD two inhumations were recorded within this grave and included an adult [465] and an infant [458]. Grave [323] represented a re-cutting of [405] and was 0.56m deep at 2.03m OD. At the base of the stack was adult [321] who was overlain by another adult [302]. The final inhumation [281] actually comprised both a young

adult male and an infant which could not be separated during excavation. The young adult skeleton had suffered from both severe rickets and gout.

Sixteenth phase of burials (Fig. 10)

7.5.44 Grave [257] was the only inhumation recorded in association with this phase of burial. At 2.03m OD it cut [323] and contained a mid adult male [255]. Directly above this was inhumation [240], a mid adult recorded at 2.26m OD which displayed evidence of a healed broken femoral neck. In all likelihood, [240] was situated within [257]. Also sealing graves [554], [323] and [298] was [200], a deposit of dark grey brown cemetery soil which was up to 0.33m thick at a highest level of 2.58m OD. This layer is again likely to have formed as a result of re-cutting and intercutting graves and was removed by hand in order to identify the grave cuts lower down in the sequence.

Seventeenth phase of burials (Fig. 10)

7.5.45 By this stage the cemetery was clearly full beyond capacity, and grave [223] was squeezed into the remaining space available confirming either the existence of above ground grave markers or of detailed plot plans. Measuring 1.94m in length, 0.80m in width and 0.76m in depth at 2.21m OD, this was a large grave and contained a total of six inhumations. These burials were recorded in two stacks which may have formed as a result of slumping following coffin collapse. One stack comprised a young to mid adult female [330] which was overlain by adults [327] and [317]. The second stack comprised juvenile [368] and infant [367]. Above both [367] and [317] was another adult skeleton which displayed evidence of a healed fractured rib [221]. Sealing this grave along with [239] and [266] was [262], a layer of sandy silt which was 0.01m thick at 2.04m OD.

Eighteenth phase of burials (Fig. 10)

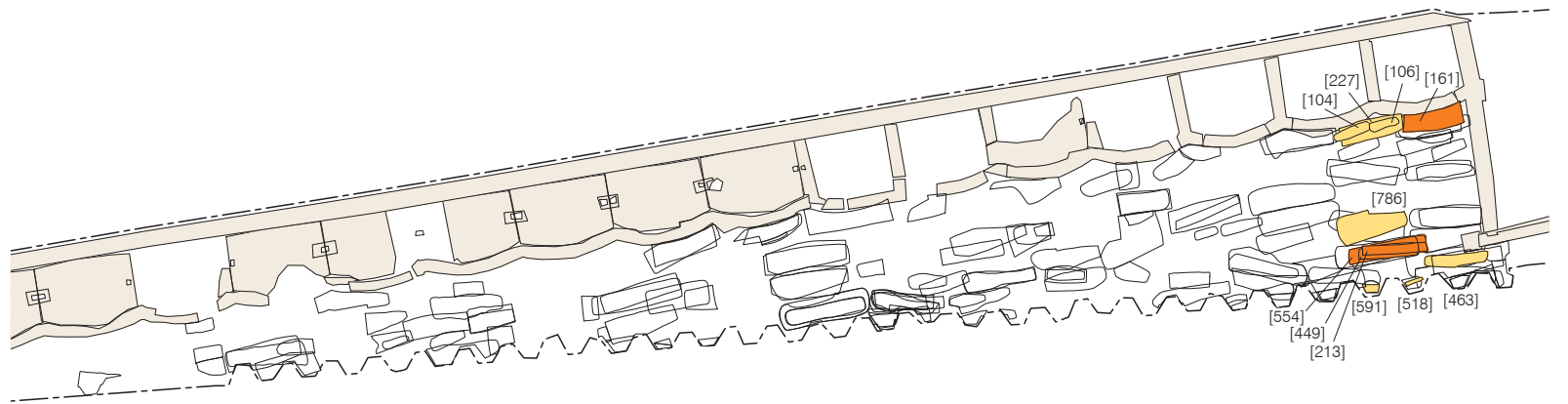
7.5.46 Two graves were recorded in association with this phase at between 2.22m OD and 2.24m OD. Cut [207] directly overlay [217], although in cutting layer [262] it is likely to have been a re-cut rather than forming part of the same stack. Only one adult inhumation was present within [207], a mid adult female [205]. Grave [252] was located to the south-east of [207] and contained an old adult female. Sealing graves [207], [231], [479], [399] and [711] was a layer of silty sand [199], which was up to 0.25m thick at 2.47m OD.

Nineteenth Phase of burials (Fig. 10)

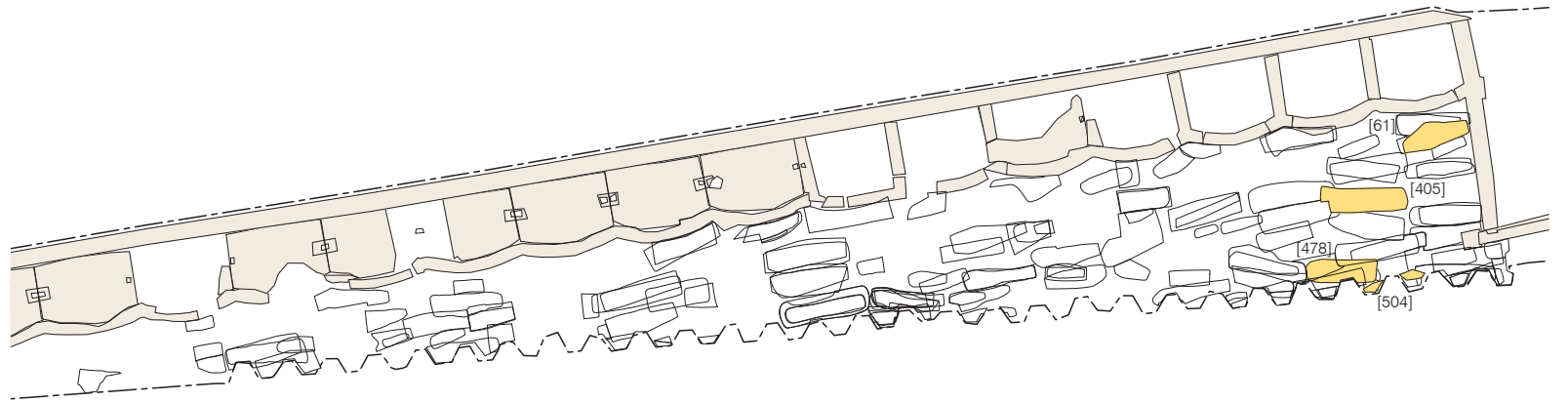
7.5.47 The very final burials recorded within the cemetery consisted of grave [190], which contained juvenile [188], and grave [187] which contained a young to old adult [183] and a young adult [155]. These graves were respectively observed at 2.11m OD and 2.62m OD.

7.5.48 The final cut recorded in association with the cemetery was slumped feature [593] which overlay graves [636] and [1063]. This was filled by [592], a dark grey brown sand clay silt. Covering the excavation area was cemetery soil [26] which was up to 0.61m thick at 2.91m OD. At the eastern end of the excavation area skeletal remains were recovered from this soil and they were given the context number [445]. The remains actually comprised two infants and a neonate, suggesting that the three inhumations were situated within a grave which could not be identified during the excavation process.

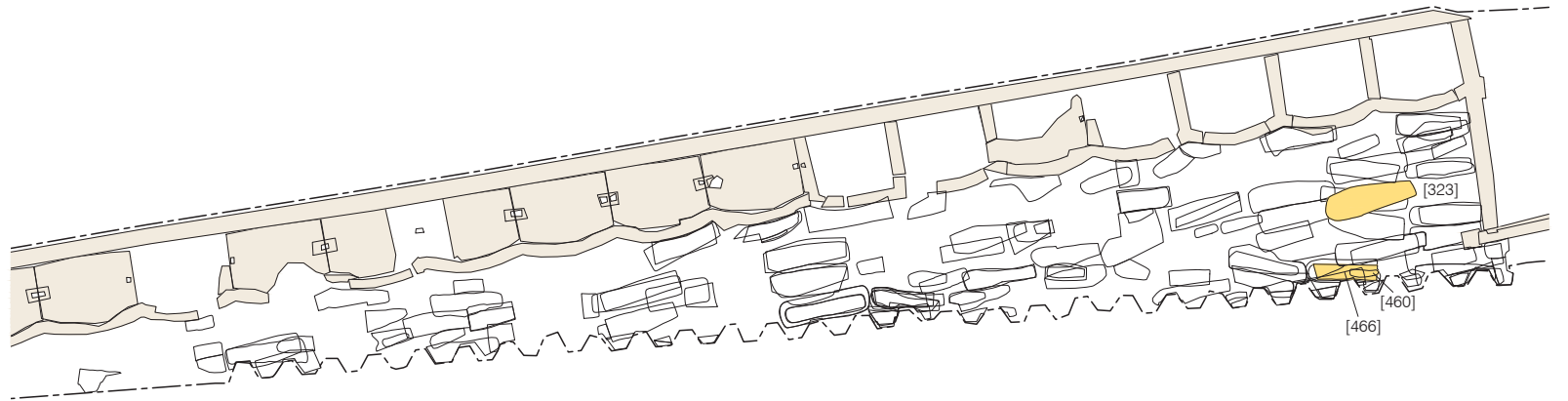
Thirteenth Burials



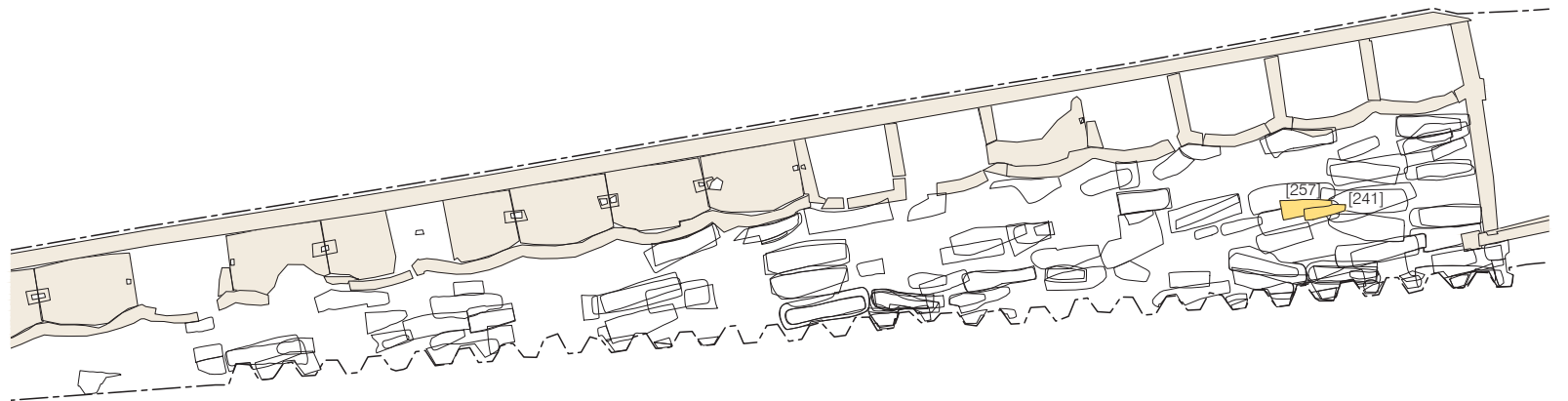
Fourteenth Burials



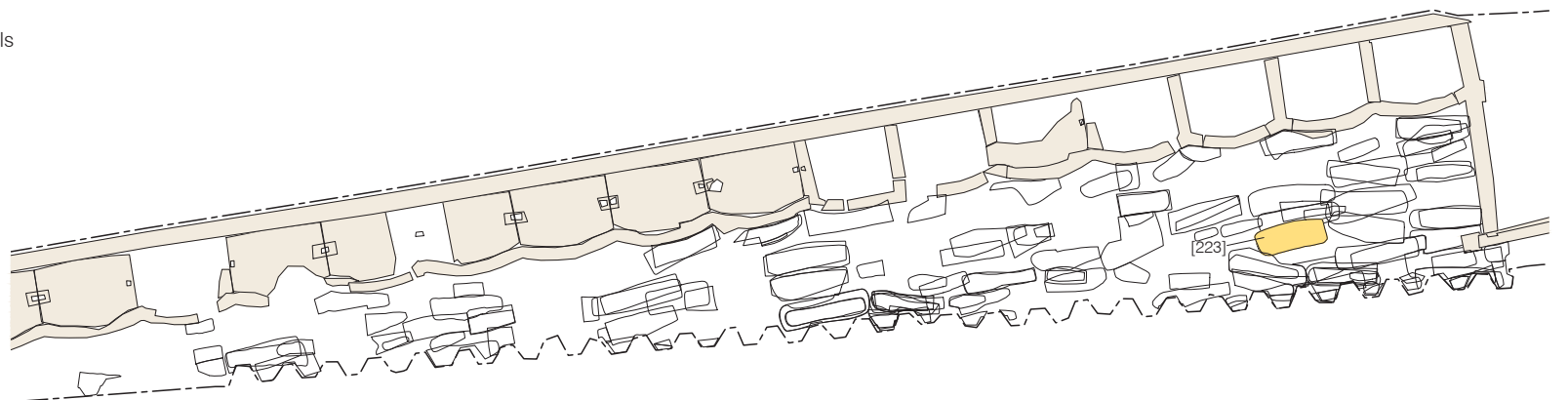
Fifteenth Burials



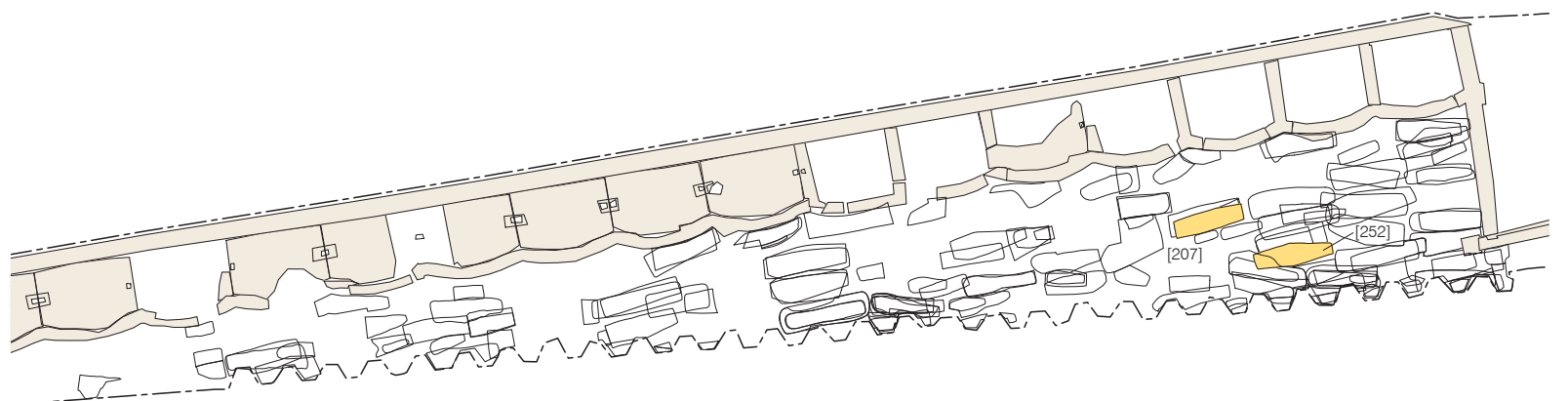
Sixteenth Burials



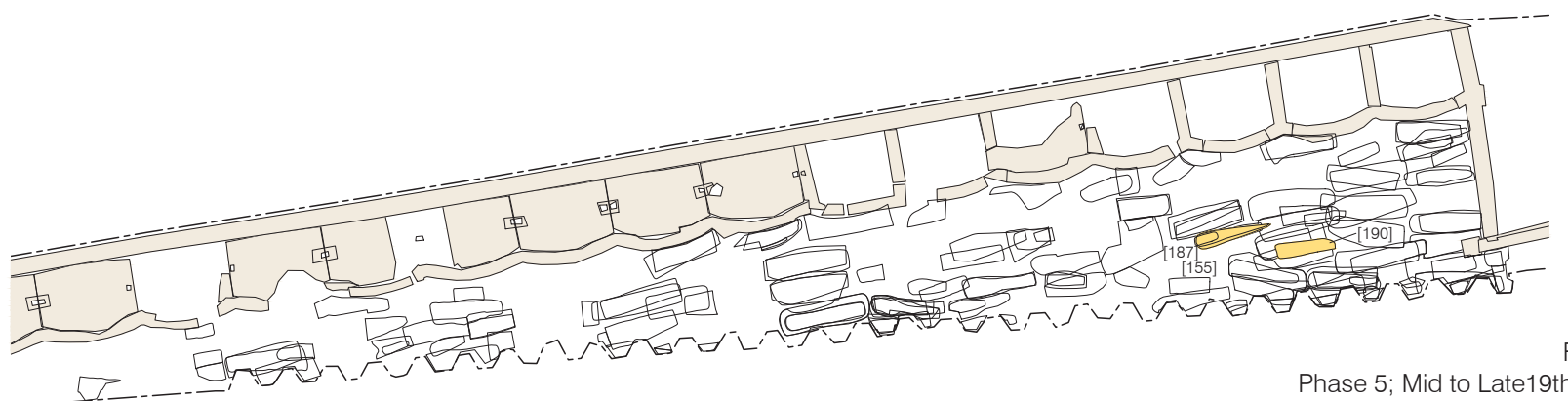
Seventeenth Burials



Eighteenth Burials



Nineteenth Burials



- Grave cuts
- Grave cuts containing skeletons subject to post-mortem dissection
- Cemetery wall & vaults



Figure 10
Phase 5; Mid to Late 19th Century
Thirteenth to Nineteenth Burials
Plan 1:200 at A3

7.6 PHASE 6 – LATE 19TH CENTURY (Fig. 11)

St Gabriel's Church

- 7.6.1 Once the cemetery was full and a stop order had been placed in regards of further inhumation, this area of the graveyard remained undisturbed for a number of years. By AD 1871 the proximity of St Mary's church to the main road had become an issue however, and a decision was made to remove the church in order to widen the road. The demolition of the church duly followed, and it was subsequently rebuilt close to Kennington Station. A new church was then erected within the northern area of the churchyard, and St Gabriel's was consecrated as a chapel of easement to St Mary's Parish in AD 1874. This church ran directly parallel with the earlier Vault structure at a distance of just 1.05m to the south of the Phase 4 edifice.
- 7.6.2 The construction of this new church had a considerable impact on the cemetery, and the foundations of the north-eastern corner of St Gabriel's were revealed during the excavation. These foundations comprised a series of deep concrete pads measuring c. 1.75m from east to west, 1.32m from north to south and 2.48m in depth at 2.25m OD. Assigned the group number [342] they were spaced at regular intervals of approximately 3m and were constructed from a loose, pebble rich concrete mixture. Extending down to a depth of -0.16m OD, the foundations had severely impacted upon the cemetery and had truncated numerous burials during the construction process. A total of six pads were revealed, and a construction cut associated with the north-eastern foundation was given the context number [347] in section and [77] in plan.
- 7.6.3 The footings of the church [340] were built with red and yellow frogged bricks bonded in an English pattern with a firm yellow white mortar containing frequent flecks of chalk. The footings themselves were constructed directly off the foundation pads, measuring 0.50m in width and extending 26.10m in length from east to west and 2.87m from north to south as seen at a highest level of 4.03m OD. Rising from the concrete pads were stepped, corbelled brick bases consisting of four courses which rose to a height of 0.37m. These were then linked by a series of segmental arches resting on brick skewbacks which spanned the pads and measured c. 3.43m in width with a rise of 0.77m. The arches were built with an order of three concentric brick rings arranged in a rowlock header formation and had clearly been designed as the load bearing structural support base for the upstanding church. In total, five of these arches were revealed along the northern section of the footings, with a further arch revealed along the eastern portion.
- 7.6.4 Facing the spandrels between the arches and resting directly on top of the corbelled brick bases was a series of brick abutments which varied in width from between 0.9m

and 1.5m. Stepping out 0.30m from the main footings, these buttresses would also have acted as support columns for the church.

- 7.6.5 Backfilling construction cut [347] was fill [346], a deposit of mid black brown clay silt which was 0.57m thick at 2.34m OD and was equivalent to [76] which filled [77]. Secondary fill [345] sealed [346] at 2.69m OD and was a dark grey brown sand silt. Sealing [345] and abutting both the footings of St Gabriel's and the Vaults was [348], a loose, yellow white deposit of mortar which was 0.06m deep at 2.73m OD. This thin layer may have functioned as a temporary work surface during the church construction. Sealing [348] was [344], a deposit of dark grey brown sandy clay which was 0.33m thick at 3.02m OD. This was in turn overlain by [343], a loose make up layer of mixed concrete, brick rubble and pebbles which was 0.61m thick at 3.60m OD. Sealing the make-up layer were the remains of a brick path [349] which was again situated directly between St Gabriel's and the Vaults. This path was constructed from unbonded red and yellow frogged bricks and as seen measured 1.07m from north to south, 0.85m from east to west and 0.19m in depth at 3.79m OD.

Plate 3 – The footings of St Gabriel's Church – Looking South



Closure of the Vaults

- 7.6.6 During the demolition of St Mary's and the construction of St Gabriel's, the Vaults situated along the northern boundary of the cemetery were finally closed. As a result

of the impact caused by the new church footings the chambers, many of which were empty at the time of closure, were utilised for one concluding matter. The clearance of the cemetery to the south had resulted in the requirement for reburial, and a number of lead coffins were subsequently moved from their original locations and placed within the available Vaults. In Vault 2 at least five coffins were revealed, although most of these were in poor condition and only one breastplate could be identified. This read

'Mrs Sarah Poignand

Died 23rd March 1826

Aged 25 years'.

7.6.7 In Vault 3 a solitary coffin was present and the breastplate read as follows:

'Fran Talbot

Esq

Died 30 May

1838

Aged 18? Years'.

The final vault found to contain lead coffins was Vault 12, which housed a total of three burials. The earliest of these belonged to

'Master Will Sedgwick

Died 10th Sept

1832?

Aged 1 year

8 months'.

William's coffin was resting on top of his sister's coffin, the breastplate of which read as follows:

'Elizabeth Lee Sedgwick

Died 29 July

1837

Aged 12 months

& 10 days'.

The final coffin within this vault was situated to the south of the two children, and again a breastplate was present:

'Susannah Watts

Died 31 August

1845

Aged 84'.

Plate 4 (below) – Francis Talbot (Vault 3). Looking South



Plate 5 (below) – Susannah Watts (top), William Sedgwick (bottom left), Elizabeth Lee Sedgwick (bottom right). Vault 12. Looking South



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- 7.6.8 A number of vaults had therefore clearly been used to re-inter burials from the cemetery, and these coffins may once have been situated within upstanding tombs which were levelled during the demolition of St Mary's. Perhaps more unusual however were the considerable numbers of vaults which contained disarticulated human remains in the form of charnel. These included Vaults 4, 5, 13, 17, 18, 19, 21, 22, 23, 24 & 25, with the upper levels of the human remains variously identified at between 1.97m OD and 2.65m OD. As the footings of St Gabriel's clearly truncated the earlier burials, large quantities of human remains must have been disturbed during the construction process and the empty vaults would have provided a convenient place to store them once exhumed.
- 7.6.9 Slightly more unusual however was Vault 15 which, following the partial removal of the northern Vault wall revealed an upper level of carefully arranged charnel. This suggested that the chamber had been used as an ossuary and that again, the remains present were most probably recovered during the construction of St Gabriel's. The upper levels of the charnel were recorded at between 2.64m OD and 2.74m OD and comprised three rows of up to twelve skulls positioned along both the western and eastern edges of the Vault. Within the centre of the Vault between the skulls was a long row of both femurs and tibias which were all aligned east-west. Resting on top of the skulls along both sides and between the central rows of skulls and the long bones were numerous ilium bones which had also been arranged with the crests resting on the skulls and the lower ends facing towards the longbones.
- 7.6.10 Once this arranged charnel was removed, a layer of chalky mortar was revealed which sealed a deposit of more disarticulated human remains along with fragments of coffin. Immediately beneath this material was an articulated skeleton of an adolescent to young adult [332] which was aligned north-south with the head at the north end. Resting in a supine position this inhumation was observed at 2.59m OD and appeared to be slightly slumped with the head facing towards the west and the right arm also falling in this direction. This suggested that the skeleton was still situated within a coffin when placed into the Vault, and was in a complete state. Once [332] was lifted, further disarticulated human bone filled the Vault and was removed by the body removal specialists.
- 7.6.11 A similar situation was observed in Vault 16, whereby charnel had been arranged with two rows of east-west aligned longbones positioned along the eastern and western sides of the chamber with a series of skulls positioned within the centre of the Vault. A number of these skulls had undergone craniotomies. Unfortunately, slumping within the centre of the Vault had resulted in much of the arranged charnel collapsing and the reasons for this occurrence were revealed once the charnel was removed. At the base of the Vault were a number of inhumations, all of which had been reinterred. The coffins had rotted to no more than a stain, and in most instances

the skeletal remains were laid out with their heads in the east and their feet to the west. Three stacks were observed, with mid adult female [372] overlain by young adult male [362], which was in turn sealed by mid to old adult [338] at 1.76m OD. The second stack comprised an old adult [380] which was overlain by juvenile [378] at 1.41m OD. The final stack consisted of skeleton [406] which was sealed by inhumation [391]. The remains of a further juvenile [387] were also revealed.

7.6.12 Further arranged charnel was also encountered in Vault 20, although this collection was not quite so well organised. Here a number of skulls were positioned along the northern side of the chamber facing south, whilst a collection of iliums were located along the eastern edge. Longbones made up the rest of the collection and were aligned in a north-south grouping to the south of the skulls and to the east of the pelvic bones. Again, a number of the skulls had been subject to post-mortem dissection.

7.6.13 In Vault 23 further inhumations were revealed at the base of the chamber. Again, bodies appeared to have been reinterred within their coffins yet only the legs, pelvis and vertebrae of mid adult [442] survived. This individual was overlain by mid adult male [441], although again only the right arm, pelvis and legs of this skeleton were present. The final burial within the stack was young adult [439], which was observed at a highest level of 1.20m OD. Of note, a section of the brickwork in between Vaults 23 and 24 appeared to have been removed down to near floor level during the closure of the Vaults. Measuring 0.56m in width and 0.88m in depth the reasons for the creation of this gap were unclear. All of skeletal remains were sealed by [438], a yellow brown grey to red brown clay silt deposit which was recorded at a highest level of 1.51m OD.

7.6.14 The final phase in the closure of the Vaults concerned the blocking of the openings on the south side of each individual chamber. In every instance a separate context number was given to the blocking episode, with all of the Vaults sealed by one phase of brickwork apart from Vault 4 which comprised two phases ([268] & [418]). The blocking was generally undertaken with the use of red and yellow frogged bricks bonded in an irregular pattern with variable mortar types. Although the size of the blocking also varied from chamber to chamber, in general the brickwork sealing the openings measured c. 1.65m in width and 1.25m in depth. In total, only eight Vaults were empty in regards of charnel, coffins or articulated skeletons and comprised Vaults 1, 6, 7, 8, 9, 10, 11 and 14.

Plate 6 – Arranged charnel Vault 15. Looking North



St Gabriel Street

- 7.6.15 On the eastern side of the Vaults and to the north of cemetery wall [9], brickwork associated with properties fronting onto St Gabriel Street was identified. A made ground deposit of mid grey brown to black silt clay sand [334] formed the base for these structures and extended up to 1.67m in thickness, abutting the Vaults at 2.67m OD. Sitting on top of this made ground and again abutting the north-eastern corner of the Vaults was a north-west south-east aligned wall [7] which formed the rear of at least two properties. Extending 6.1m in length and 0.30m in width, this wall was constructed from stock bricks bonded in an English pattern with Portland cement. Recorded at 2.78m OD it was 0.49m deep and was abutted to the north by north-east south-west aligned wall [19]. This wall formed the partition between the two properties and as seen measured 2.7m in length, 0.45m in width and 0.50m in depth at 2.72m OD. It was constructed from precisely the same materials as [7].
- 7.6.16 Abutting the western side of [19] and the northern side of [7] was a rectangular brick structure [17] which was again constructed from frogged brick set in an English bond with Portland cement. This structure extended 0.9m in width and 1.5m in length and was recorded at a highest level of 2.72m OD. Identified as a fireplace, the remnants of a similar structure were also observed on the eastern side of [19] although in this instance the brickwork survived in a poor condition and was recorded as part of [7].
- 7.6.17 To the south of [7] and again abutting the property wall, a north-south aligned wall [8] extended 2.7m in length and adjoined cemetery wall [9] to the south. Measuring

0.20m in width and just 0.07m in depth at 2.67m OD, this wall formed part of an outhouse block in the rear yard of the Gabriel Street properties. Forming part of the same structure was an east-west aligned section of wall which abutted the Vaults and extended 1.2m in length and 0.30m in width. Covering [8] was a concrete yard surface which was 0.10m thick at 2.79mOD and measured 2.54m from north to south and 4.50m from east to west. The only other context recorded in association with the Gabriel Street properties was [16], which represented the last remaining fragment of a brick yard surface. This again abutted the Vaults just to the south of [7] and was recorded at 2.61m OD.

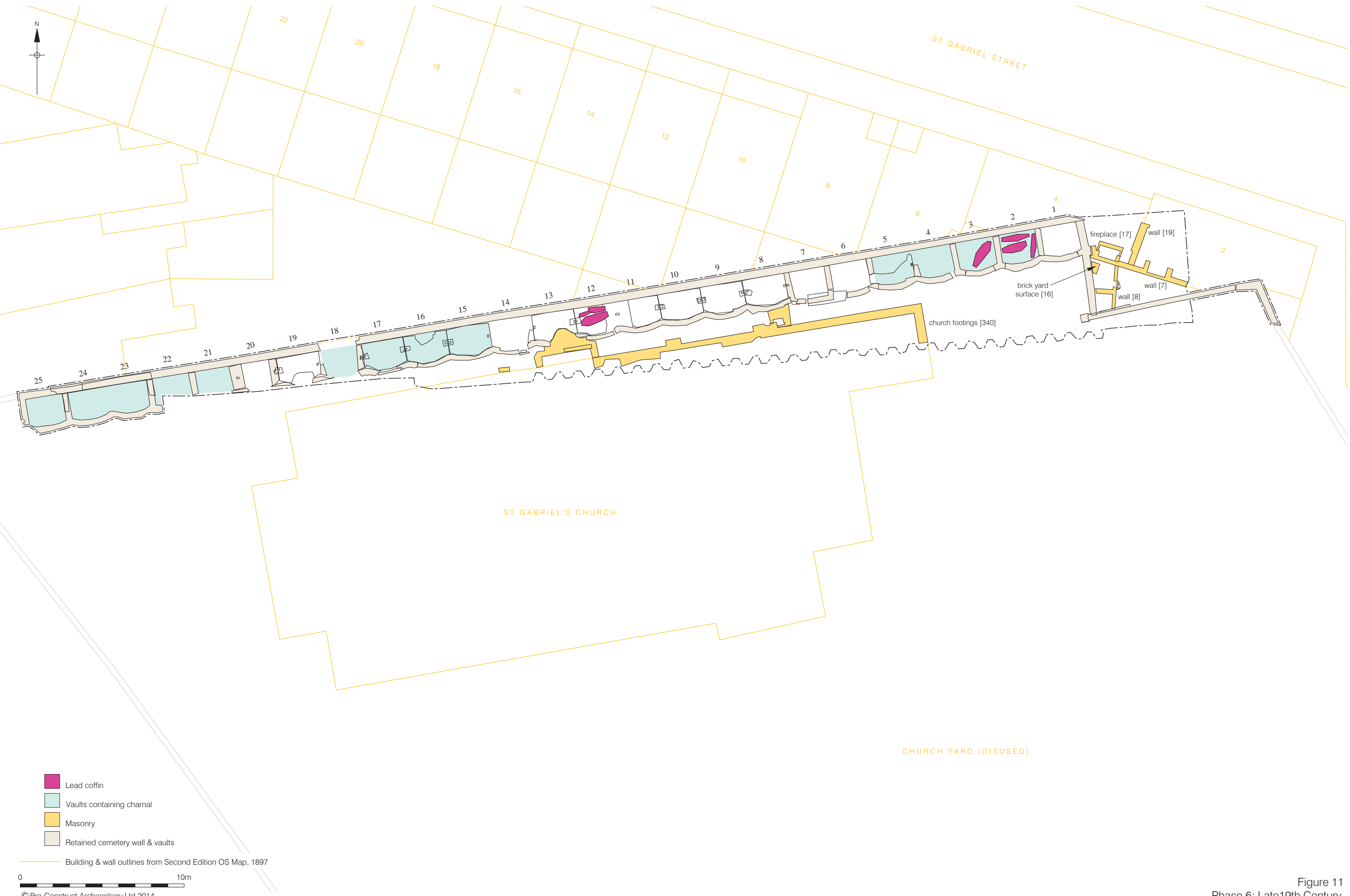


Figure 11
Phase 6; Late 19th Century
Plan 1:200 at A3

0 10m
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7.7 PHASE 7 – MODERN

A concrete structure

- 7.7.1 The only feature recorded in association with Phase 7 concerned a concrete structure located at the eastern end of the excavation area. Assigned the context number [10], this structure survived in a poor condition and was situated directly above the cemetery soil [26]. Truncated to the north it extended into the southern limit of excavation and measured 1.90m from north to south, 2.16m from east to west and 0.86m in depth at 3.57m OD. The western and eastern sides of the structure were formed by concrete walls which rested above a concrete base and measured 0.25m in width. Situated in between these two walls, although slightly offset towards the west, was a further concrete wall of a similar width. The structure was backfilled with modern material including rusted iron bars.
- 7.7.2 Two test pits excavated along the western perimeter of the site to a maximum depth of 3.12m failed to reveal anything other than modern makeup at a lowest level of 0.12m OD.

8 ARCHAEOLOGICAL PHASE DISCUSSION

8.1 Discussion of Phase 1 – Natural

8.1.1 The natural horizons observed during the excavations at the Elephant and Castle Leisure Centre comprised the Pleistocene (Devensian) Kempton Park River Terrace Gravels. Although the natural topography of Southwark is somewhat complex, the Holocene landscape to the north of the borough is generally accepted to have comprised sand and gravel islands dissected by braided channels and tributaries of the Thames. These watercourses produced a landscape of low lying islands or 'eyots' which were also separated by mudflats and marshes (Cowie & Corcoran 2008, 161). The site at the Elephant and Castle Leisure Centre lies on the gravel terrace to the south of the north Southwark eyots, although the levels taken on the gravel are low, particularly when compared to the upper levels of the gravel on the Bermondsey eyot which have been recorded at +2.2m OD (Cowie & Corcoran 2008, 161).

8.1.2 This suggests that the site was on low lying ground, an interpretation which appears to be corroborated by the conjectured route of Lock Stream (the upper part of the Neckinger River) to the immediate north of the study site along Brook Drive. A watching brief undertaken during groundworks for the Leisure Centre in the late 1970's revealed a peat horizon from which wood was sampled and produced a calibrated radiocarbon date of 1200-850 BC (uncalibrated - 2910±70 BP). Pollen analysis produced evidence of both alder and aquatics, suggesting that the site was fairly wet during this period (Tyers 1988, 6-9).

8.2 Discussion of Phase 2 – Underlying layers

8.2.1 As discussed above, the deposits immediately overlying the gravels appeared to relate to a damp environment. Work by Devoy (Devoy 1979) on Flandrian sea level changes within the lower Thames estuary led to the development of the Thames/Tilbury model which identified four regression phases (Tilbury I - IV) and four transgressions (Thames I – IV) as well as a possible fifth in each case (Tilbury V and Thames V – we are in effect still in the latest transgression, Thames IV or V). Based on this model, episodes of transgression are represented in the archaeological record by olive green to blue/grey silts/clays and silts, whilst episodes of regression are represented by fibrous, dark brown organic peats (Tyers 1988, 5). Whereas the clays and silts were formed in a brackish water environment, the peat deposits are the product of *Phragmites* (reed) and saltmarsh peats. The Devoy model is currently known to oversimplify the succession sequence on a local level (Sidell *et al* 2002, 55).

8.2.2 As such, the blue silts and clays observed as sealing the natural gravels in the excavation area are likely to relate to transgressive episodes, most probably

associated with either the Thames itself or a relict channel such as Lock Stream. With no dating evidence retrieved from these deposits however, they cannot be placed within a specific period of activity. Nonetheless, the discovery of the peat deposit within the alluvial sequence may perhaps offer some insight into the date range of the deposits. The watching brief undertaken on the Leisure Centre during the late 1970's dated the peat discovered during these investigations to Tilbury IV, placing it within the Mid to Late Bronze Age at between 1,200 and 850 BC (Tyers 1988, 6). The levels at which the peat was recorded were between 0.35m OD and 0.60m OD, which is comparable to the peat horizon observed during the recent excavation (0.53m OD). If this is the case, then the peat recorded in the section to the north-east of the excavation area is likely to be of a contemporary date, with the silt and clay deposits sealing the peat relating to subsequent transgressive episodes.

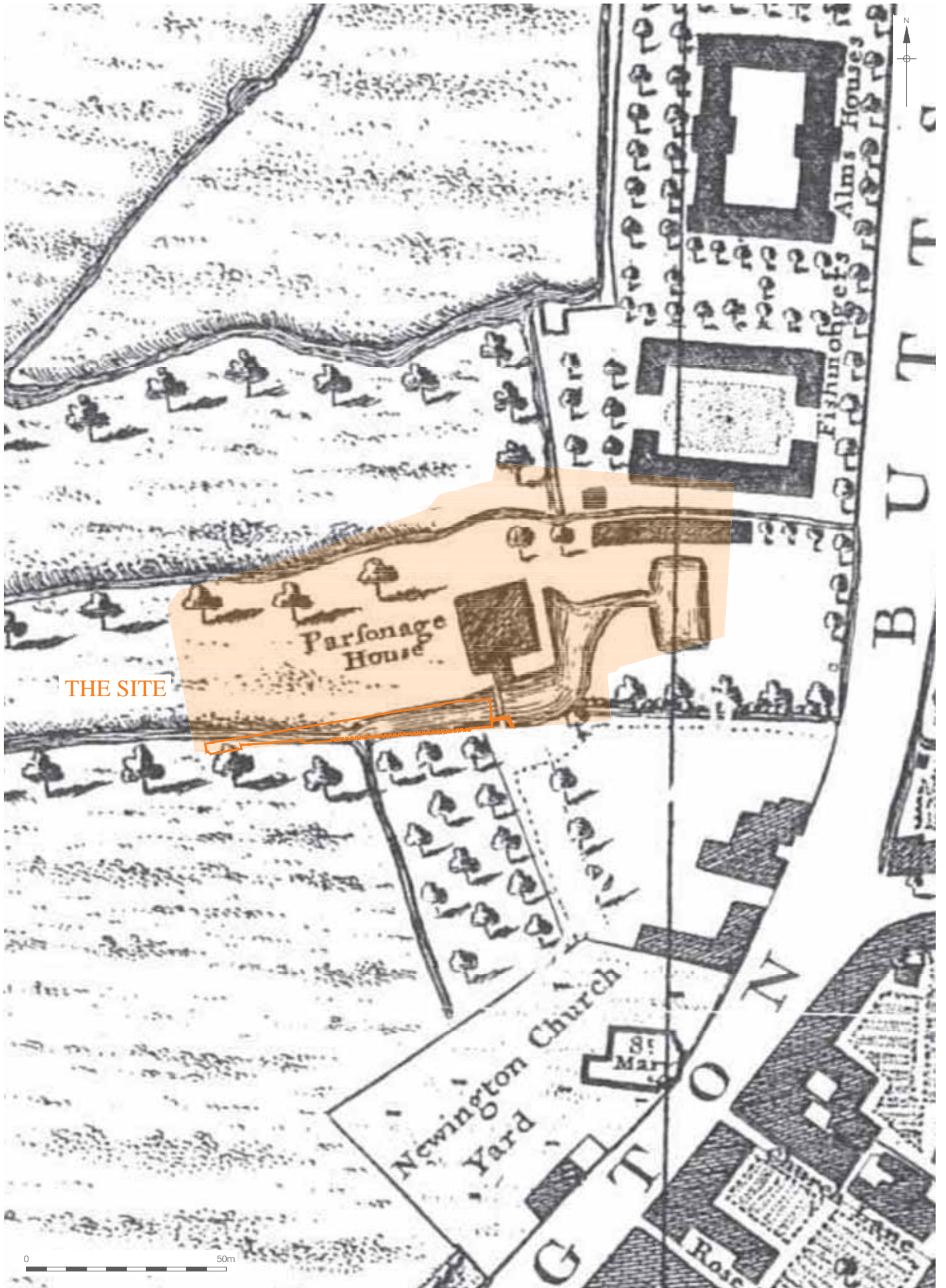
- 8.2.3 Work by Sidell *et al* suggests that a permanent positioning of the tidal head of the Thames on the Southwark/Lambeth stretch of the river was not established until c. 1,100 BC (Sidell *et al* 2002, 32). The majority of peat units studied within the Southwark and Lambeth area also appear to have been submerged c. 1,000 cal BC, which again fits in with the date of the peat discovered during the previous investigations at the Leisure Centre (Sidell *et al* 2002, 33). This would suggest that the clays and silts sealing the peat related to the upstream progression of the tidal head during the late 2nd millennium cal BC, an event which resulted in substantial lateral flooding across the Thames floodplain (Sidell *et al* 2002, 44). Unfortunately, with no peat observed within the excavation area itself, the blue clay which sealed the gravel still cannot be dated to either the period before or after the Mid to Late Bronze Age. The levels of this clay are more comparable with the clay deposit recorded in section beneath the peat however, which perhaps suggests that it was earlier in date and that the subsequent deposits at the eastern end related to transgression following the peat formation. The absence of peat within this area of the site may have been due to erosion as a result of these transgressive episodes, a factor which has previously been equated with variation in the height of the peat horizons with the Southwark and Lambeth region (Tyers 1988, 11).

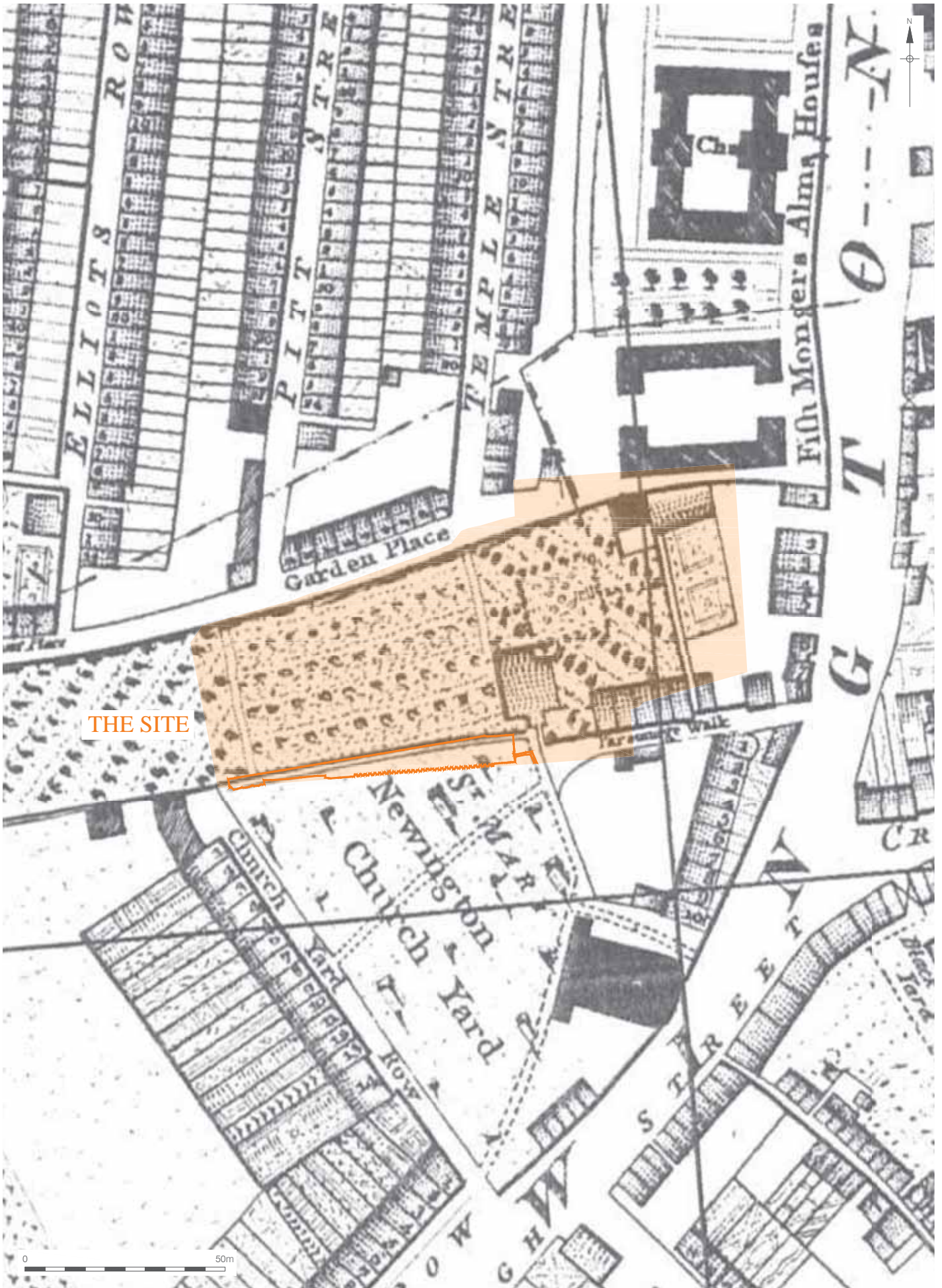
8.3 Discussion of Phase 3 – Mid 18th to Mid 19th century

- 8.3.1 Other than some sherds of residual medieval pottery which were recovered from later features during the excavation process, there was no evidence for a human presence on the site until the 18th century. Little can be said about the linear feature and dump layer recorded in Slot 2, although the presence of a small quantity of pottery dating to between AD 1760 and 1780 in the dump implied that it was deposited during the mid to late 18th century.

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- 8.3.2 The ditch recorded along the length of the excavation area was clearly a significant and substantial feature, extending beyond 24.3m in length and 4.06m in width and up to at least 1.44m in depth. This ditch is believed to have been associated with Parsonage House which is clearly present on Rocque's map of AD 1738. The construction date for the building itself is uncertain, although Walford claimed that it was possibly 16th century in origin (Walford 1878). During the late 18th century, Daniel Lysons described the house as built of wood and surrounded by a moat with four bridges (Lysons 1792). The ditches forming this 'moat' are again very clear on Rocque's map of AD 1738, and it does seem most likely that the ditch discovered during the excavation represents the long east-west aligned linear depicted to the south of the Parsonage on this piece of cartographic evidence. The date of the pottery within the earlier dump layer which was cut by the ditch may indicate that this material was intrusive, yet it is apparent that apart from some slightly earlier clay tobacco pipe, the majority of the ceramic material recovered from the primary fills of the ditch post-dated AD 1780. This suggested that this section of the ditch was either kept very clean, or that it was perhaps re-cut or widened during the latter part of the 18th century.
- 8.3.3 The primary fills of the ditch also offered little to suggest that they formed part of a moat or belonged to a water management system. Comprising grey to brown orange mixed clays, silts, sands and gravels they did not appear waterlain and instead seemed to have gradually accumulated as fill material. The function of the 'moat' around the Parsonage therefore remains obscure, although it has previously been claimed that in wet seasons these ditches extended across St George's Fields to the Dog and Duck (Darlington 1955a). This suggests that they were designed to function in a drainage capacity, at least during periods of inclement weather.
- 8.3.4 If the evidence from the primary fills of the ditch fails to support the drainage interpretation of this large linear, the use of the ditch as a boundary marker is unequivocal. This is again clear on Rocque's map, with the land to the north of the ditch occupied by the Parsonage, and the land to the south depicted as open land, possibly in the form of an orchard. The use of the ditch for land division would also appear to be supported by the fenceline identified on the top of the south side of the cut. This barrier is likely to have been as much about edge protection as a liminal plot, with the ditch being particularly deep and therefore hazardous at this point, especially during periods when it was full of water. The fenceline eventually fell out of use, most probably in a state of disrepair judging from the remnants of the wooden stakes within the stakeholes, and deposits began to accumulate within the base of the ditch. The introduction of the large rectangular posthole did however suggest that some form of barrier was maintained and that the ditch remained open, although it is also possible that this rather large and isolated posthole belonged to a bridge or crossing point linking the Parsonage with the plot of land to the south.
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- 8.3.5 The introduction of the substantial wall to the south of the ditch can be related to the expansion of the cemetery belonging to St Mary's during the latter part of the 18th century. There are clear differences in this area of the site between Rocque's map of AD 1738 and Horwood's map of AD 1792-99, with the latter showing Newington churchyard as extending across the former open land to the south of the Parsonage and right up to the boundary of the Parsonage itself. This suggests that the large red brick wall was constructed as part of the cemetery expansion and was erected to demarcate the northern boundary of the new graveyard. At this time the ditch to the north of the wall appears to have remained open, making for an interesting topographic contrast with a high wall standing immediately adjacent to a deep ditch.
- 8.3.6 The precise date for the expansion of the cemetery remains elusive, although there are recorded enlargements in AD 1637, 1665, and 1757 and later on in AD 1821 and 1834 (Woollacott 2012, 54). The expansion of AD 1757 may in fact have been undertaken slightly earlier in AD 1756 when an Act of Parliament was passed on the 25th March for this purpose, a process which also required the consent of the Bishop of Worcester (Thompson, this report). Given the cartographic evidence the expansion of 1756/1757 would appear to be the most likely, although the construction of the wall could relate to later episodes of building work associated with the church which took place between AD 1792 and 1793 (Lysons, 1792). The Rectory (Parsonage) was also rebuilt at around this time in AD 1794 (Malden, 1912), and a potential late 18th century date for the wall not only fits comfortably with the recorded construction work which took place during this period, but also correlates with the archaeological sequence. It is also possible that the chalk footing situated above the alluvial sequence to the north-east of the excavation area was associated with the re-building of the Rectory.
- 8.3.7 The final archaeological evidence relating to this phase of activity concerned the burials on the south side of the wall. These burials obviously post-dated the construction of the wall and represented inhumations which were interred at the northern limit of the now expanded churchyard. The two earliest burials were clearly stacked and are likely to have been buried at or around the same time. The practice of 'stacking' is a common feature of contemporary London burial grounds, with the grave pits being kept open until they were full (Miles & Connell 2012, 22). Evidence from the proximate New Bunhill burial grounds suggested that most of the stacked graves on that site were backfilled after no more than a week, although there was also some evidence for the reopening of plots (Miles & Connell 2012, 22). This process of grave reopening may explain the slightly later inhumation which was situated directly above the two Phase 3 stacked burials on the study site.





8.4 Discussion of Phase 4 – Mid 19th century

- 8.4.1 The mid 19th century represented a period of significant change on the site as the large east-west aligned ditch was deliberately backfilled and the land was prepared for re-landscaping. The ceramic assemblage recovered from the ditch suggested that this episode occurred at some point between AD 1825 and 1840, with the backfilled material also providing an insight into contemporary activity within the immediate environs of St Mary's. Although this assemblage was most unlikely to have derived directly from either the church or the cemetery, it is quite possible that the flowerpots were discarded from the Parsonage. Alternatively these vessels may represent waste from a local pottery. In terms of the remaining material, the tankards, mortars and tongue pans are believed to have originated from a local drinking establishment, whilst the industrial vessels suggest the proximate manufacture of white lead. The Italian oil jars can be associated with a nearby colour shop, whilst the horse remains suggest that a knackers yard was situated in close proximity to the site. Of particular interest was the assemblage of dog and cat bones, including the skinned cat skull, which may imply that a furrier was operating nearby.
- 8.4.2 This, perhaps somewhat mixed collection, therefore indicates that the ditch was deliberately backfilled in a single episode and that waste material collected from local industries and establishments was used in the process. Given the large quantities of spoil required to fill such a substantial ditch it is unlikely that this waste was collected from a significant distance away (especially if it was being brought in by cart), and the ceramic and animal bone collections recovered therefore offer an insight into local activity within Newington during the mid 19th century.
- 8.4.3 Following the backfilling of the ditch a large section of the mid to late 18th century cemetery wall was removed as part of the same landscaping process. The eastern section of the wall was left upstanding however at a height of up to 2.87m. The reasons behind the backfilling of the ditch and the removal of the wall can clearly be associated with the construction of the 25 vaults (or crypts) which were subsequently erected on an east-west alignment in this area of the site. The erection of the vault structure represented an expansion of the church grounds to the north, with the eastern end of the vaults subsequently tied in to the remaining upstanding portion of the 18th century cemetery wall. Unfortunately, as subterranean features these vaults are not depicted on any contemporary maps, which initially made it difficult to determine precisely when they were built. As previously stated, there is clear evidence of cemetery expansion in the period between Rocque's map of AD 1738 and Horwood's map of AD 1792-99. By the late 18th century St Mary's cemetery had increased significantly in size and is depicted as abutting the perimeter of the Parsonage to the north. It is challenging to determine any significant changes in the

period between Horwood's map and the Ordnance Survey of AD 1879 however. The latter map does suggest that the Parsonage building itself had been expanded, yet the northern boundary of the churchyard does not seem hugely dissimilar to the earlier depiction.

8.4.4 Nonetheless, it is clear from the archaeological excavation that the churchyard was expanded in the period between these two maps, and the ceramic evidence from the backfill of the large ditch suggests that this episode occurred between AD 1825 and 1840. During this period the substantial vault structure was constructed with at least 25 individual crypts built as part of a single edifice upon a large mortar raft. This building project cannot have been a low-cost enterprise, with the curving southern wall providing each crypt with an apsidal end and the repeated vaulted roofs reflecting an aesthetic quality to the functional structure. The subsequent levelling of the roofs with a crushed mortar deposit suggested that a flat surface capped the vaults, yet access was clearly provided on the south side implying that they must have been at least partially upstanding. The construction programme was completed following the deposition of a number of levelling layers on the south side of the vaults which raised the contemporary ground surface by approximately 1.11m. Many of these deposits contained crushed mortar and CBM along with large sections of the demolished cemetery wall itself.

8.4.5 Following excavation, historical research has provided considerable insight into the vault construction, and thanks are expressed to Mr Stephen Humphrey, the former Archivist at Southwark Local Studies Library. Following on from a discussion with the author at a lecture on the study site at the Southwark and Lambeth Archaeological Society on the 11th of February 2014, Mr Humphrey conducted his own documentary research into the vaults and discovered some most important information. In the Vestry Minutes for the parish on Wednesday the 26th of February 1834 (Southwark Archives 1037, Vestry Minutes for 1832-46), the following excerpt is recorded:

'The Chairman produced a plan and Estimate of the Works proposed to be done in the Church Yard when it was Moved Seconded and unanimously Resolved That the Church Wardens be empowered to take upon the terms of an Act of Parliament of the 10th George the 4th entitled an Act for enabling the Rector for the time being of Saint Mary Newington in the County of Surrey to make certain confirmations Leases and Assurances of certain parts of the Glebe Land belonging to the Rectory and for other purposes therein described at a Rental not exceeding two Pounds Per Annum a certain piece of the said ground described in the second schedule of the said Act and they are further authorised to enclose the said piece of Ground and to Erect Vaults in conformity to a plan and specifications prepared by Mr. Christopher Edmonds and presented at this Vestry and connected in accordance with the

proposed estimate not exceeding the Sum of Five Hundred and twenty five Pounds.'

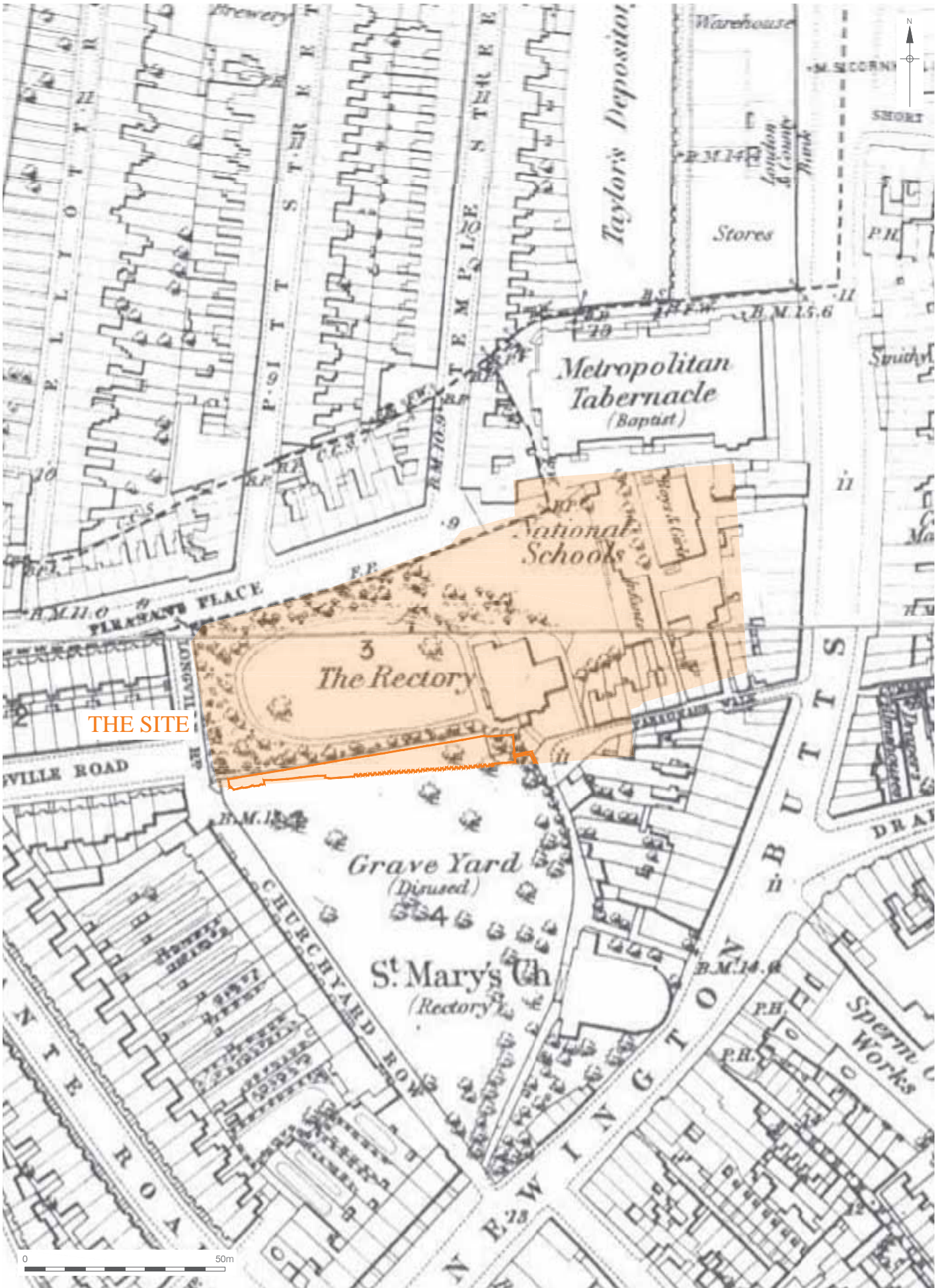
The Vestry voted in favour after discussing amendments about contracting and met again on May 2nd 1834

'To make a Rate for defraying the expenses of Erecting a Wall and Vaults on the North Side of this Parish Church Yard, agreeably to the Resolutions of Vestry on the 26th day of February last, and in accordance with the Act of Parliament 10th Geo. 4th Cap. 49 for all other Contingent charges in reference thereto.'

A rate of 3d in the £ was duly approved.

- 8.4.6 The construction of the vaults had therefore been approved in early AD 1834 and works are likely to have been begun shortly after May of the same year. The completion of the vault structure is thus believed to have taken place at some point between AD 1834 and 1835, and this would certainly fit with the ceramic evidence from the backfill of the ditch. The minutes confirm that part of the rectory land was handed over for this purpose, and that the design of the vaults was provided by a Mr. Christopher Edmonds.
- 8.4.7 Historical research into the background of this individual has proved most compelling, and he appears to have been a member of the congregation. Born in AD 1773 in Bishopstone, Wiltshire, Mr Edmonds eventually became an architect and is recorded in AD 1800 as living in the parish of St Mary Magdelene in Bermondsey. In the same year he married his first wife, Susanna Mary Pearson at St Saviour's in Southwark. Susanna died in AD 1812 and the couple had produced no children, yet Christopher was soon to marry again. He wedded his second wife, Peggy Larrat Robins (christened AD 1797 in Christ Church, Southwark), at St Mary Newington on the 30th of December AD 1815 and together they had a total of eight children (at least three of whom died before reaching 10 years of age).
- 8.4.8 By the time of the AD 1841 census the Edmonds family are recorded as living at Penton Row, Newington, Surrey, whilst Christopher practised as an architect from premises at 2 Bridge Street, Southwark. Interestingly Christopher also appears to have been involved in the construction of St Paul's church in Clapham SW4. This was built as a Chapel of ease to the new Holy Trinity Parish Church in AD 1815 and was designed by Mr Edmonds at a cost of £5,000. The Wellington Testimonial Clock Tower which was built on the corner of Duke Street at London Bridge in AD 1854 was also designed by Mr Christopher Edmonds (recorded as the Surveyor to the Board), although this structure was taken down in AD 1867 and the remnants of it now reside in Swanage (The Builder Vol X No 488 12th June 1852, p377).

8.4.9 Peggy died on the 19th of September AD 1851 and was buried at St Peter's in Walworth. In the same year, the census recorded the Edmonds family as living at 34 Newington Place. Christopher Edmonds passed away on the 30th of August AD 1853 and was buried in the same church as his wife. The fact that the couple were residents of Newington and married in St Mary's does suggest that they were probably members of the congregation however, and their burial at St Peter's may have related to the cessation of inhumations within the grounds of St Mary's.



8.5 Discussion of Phase 5 – Mid to Late 19th century

- 8.5.1 Following the construction of the vaults, the empty plot of land situated between the former cemetery boundary wall and the new structure was quickly put to use for the purposes of inhumation. An attempt has been made within the phased archaeological sequence of this report to separate the burials into various phases of interment based upon the stratigraphic relationship between the grave cuts. This process was complicated by the intensity of burial within such a small area, particularly at the eastern end of the excavation. The burial sub-phasing within Phase 5 therefore represents a best fit pattern rather than a wholly accurate interpretation. What can be stated however is that all of the burials post-date the construction of the vaults and therefore date to AD 1835 at the earliest. Burial within the churchyard ceased in AD 1854 (Woollacott 2012, 54) and all of the inhumations therefore took place within a period of nineteen years. The last order to discontinue burial at St Mary's is recorded on the 11th of December AD 1854, with effect taken from December 23rd of the same year (Thompson, this report).
- 8.5.2 All of the inhumations were observed at between 0.84m OD and 2.62m OD. Laid out in the traditional Christian tradition with the head placed to the west and the feet to the east in a supine position, for the most part the burials were conventional and unremarkable. Instances in which inhumations were not aligned east-west were mostly confined to the interment of children within the upper reaches of stacks, as previously noted at the City Bunhill burial ground (Connell & Miles 2010, 7). The coffins had survived in a particularly poor condition, leaving only the fittings and furniture along with some traces of wood and occasionally a thin layer of resin or pitch at the coffin base. This material has previously been interpreted as a sealant used to prevent seepage from the body escaping prior to interment (Miles & Connell 2012, 42). Stacking was not unusual, with single graves often containing between five or six inhumations. A maximum of seven were present in grave [394]. It was also common to find neonates and infants as the final burials within these stacks, an occurrence which has again previously been noted at the New Bunhill Fields burial ground (Miles & Connell 2012, 22). Here, 66.2% of the graves had an infant or child as the uppermost burial, a circumstance which has been described as an efficient use of burial space with up to four children's coffins fitting into the uppermost stack of a near full grave. It is also possible that undertakers were prepared to place small coffins in an existing grave for a lesser or no fee (Miles & Connell 2012, 26).
- 8.5.3 The various deposits and layers identified between the grave cuts are again likely to have accumulated or formed as a result of intercutting and truncation. The upper layer of cemetery soil survived at 0.30m above the highest recorded burial, some 1.29m below modern ground level and just 0.92m beneath the top of the crypts. This

suggested that burial was not undertaken at a substantial depth, particularly once the cemetery was at close to full capacity.

- 8.5.4 Very little was recovered from the graves in regards of unusual small finds. Occasional personal adornments were retrieved including combs and hairpins along with the two crucifixes associated with [432], the gold finger ring belonging to [570], the William IV coronation token with [629] and the small bone fork interred with infant [1033]. Other than that, the vast majority of the finds recovered were buttons and shroud pins which would be expected in a 19th century cemetery. Perhaps of more interest was the statistical analysis of the burials which recorded a high proportion of juveniles. A total of 16.46% of the burials in this area of the St Mary Newington cemetery have been aged at between 6 and 12 years, a stark contrast to New Bunhill excavation where just 4.1% of the inhumations fitted the same age bracket (Miles & Connell 2012, 64). Further contrast can also be drawn with the City Bunhill burial ground which was in use between AD 1833 and 1853 and therefore provides a most comparable cemetery. On this site just 1.7% of the burials were identified as juveniles, with a total of 29.3% aged at between 1 and 5 years (Connell & Miles 2010, 30). Much the same was observed at the New Bunhill cemetery, where 37.2% of the inhumations were aged between 1 and 5 years old (Miles & Connell 2012, 64). At St Mary's Newington, children under five years of age accounted for 10.76% of the burials.
- 8.5.5 The reasons behind the seemingly high proportion of Juveniles and lower number of children at St Mary's when compared with commensurable cemeteries is unclear at this stage. A relatively small and delimited section of the cemetery was located within the excavation area and specifics of spatial distribution of burials across the cemetery may have implications in terms of the results of statistical analysis. Much the same should also be noted in regards of both the New Bunhill and City Bunhill burial grounds (Miles & Connell 2012, 60; Connell & Miles 2010, 6).
- 8.5.6 During the initial and early phases of burial at St Mary's there did appear to be some form of patterning or organisation with regards to the spatial arrangement of the grave plots. Burials were seemingly aligned in rows and inhumation appears to have started in the north-west corner, a situation which has previously been noted at Bow Baptist church and possibly also at New Bunhill (Miles & Connell 2012, 26). The very early burials in this area of the site primarily appeared to be female, whilst many of the early burials in the eastern area of the site comprised infants and neonates. This suggested that when the new cemetery plot was first acquired an attempt was made to divide the area into specific burial zones. Potential areas specifically set aside along gender and age lines is of interest, especially as there was no evidence for such a situation at New Bunhill (Miles & Connell 2012, 24). This system quickly deteriorated however as space became limited and comparisons in this instance can

be drawn with The City Bunhill burial ground (Connell & Miles 2010, 14), At St Mary Newington the attempt to maintain rows was pursued for a time, and the burial of infants and children continued to be more concentrated at the eastern end of the site. This situation may simply relate to the larger number of burials in this area of the excavation which covered a larger proportion of the graveyard however. As space became an issue the areas between the former grave rows were exploited, earlier graves were re-cut and by the end almost all of the available space had been utilised.

- 8.5.7 In terms of the human remains there was evidence of skeletal disease, mostly in the form of rickets, infections and abscesses. In one instance death as a result of a breech birth was recorded, with the neonate still present within the mother when burial took place. Fractures (often healed) were also common, whilst post-mortem dissection (mostly in the form of craniotomies or of the humerus, femur or tibia) was encountered in 21 instances, amounting to 6.6%. This is a fairly high number when compared to New Bunhill Fields where 8 post-mortem dissections were noted in a group of 514 inhumations constituting 1.6% (Miles & Connell 2012, 85), and the City Bunhill burial ground where 9 were observed amongst a total of 239 skeletons representing 3.8% (Connell & Miles 2010, 47). The occurrence of post-mortem dissection within post-medieval cemeteries has previously been associated with advances in medical science during the 18th and 19th centuries when it became more common for medical examiners to perform autopsies. Craniotomies were undertaken in an attempt to remove the brain intact in order to weigh it or examine it for signs of disease (Connell & Miles 2010, 47-48).
- 8.5.8 What should be noted at this stage is that many of the skeletons subject to post-mortem dissection were buried within the same stacks. Other human remains present within these stacks which showed no evidence of dissection had often suffered from some form of infection or ailment discernable on the remaining bone. Furthermore, it became clear during the post-excavation process that many of these stacks were situated right up against the Vaults. Why these particular stacked burials should often comprise dissected, aged or infected individuals is unclear, but it is possible that they came directly from a mortuary, hospital or workhouse and were interred in groups without attendance, perhaps passing away as solitary characters without any family; or at least any family who could afford to bury them. This would suggest that the burial zone up against the vaults was regularly used for institutional burials and really did represent the definitive pauper's grave. Post-mortem dissection of the corpses could therefore be down to the availability of the cadaver for research as there was no family to claim it, autopsy as a result of suspicious or unusual death, or post-mortem investigation into any illness or disease that the individual may have suffered from.

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- 8.5.9 A slightly more macabre possibility may however relate to the sale of corpses for medical research. In May AD 1858 Albert Feist, the Master of the Newington Workhouse was indicted for selling the corpses of Workhouse inmates to Guy's Hospital for dissection and also for conducting false funeral services for the deceased. What was left of the corpses after dissection was buried in secret after the public funeral services and Feist was charged with 64 offences in total. Acting as Master of the Workhouse between AD 1856 and 1858, Feist's crimes post-dated the end use of St Mary's cemetery. At trial however, he argued that this practice had been going on for some time, and considerable numbers of Workhouse inmates are certainly recorded within the 19th century burial records of St Mary's (Thompson, this report). The grouped stacking of remains subject to post-mortem dissection may therefore have this slightly sinister origin, and their location right up against the Vaults in the northern end of the cemetery may well attest to secluded burial.
- 8.5.10 The final point to note in regards of the cemetery was the relative lack of coffin breastplates, meaning that individuals could not be identified by name. This suggests that any surviving burial registers are also unlikely to be particularly helpful in identifying the skeletal remains. Only one breastplate was retrieved and is believed to relate to the neonate recovered from grave [102]. Named as William Thorowgood Brewingtier, the breastplate states that this young child died at the age of three months on Christmas Day in AD 1843. The plate however is actually believed to refer to William Thorowgood Brewington who was born in the autumn of AD 1843 and was buried within St Mary's cemetery on December 27th of the same year. Clearly the surname on the coffin plate is a misspelling as William was the son of William and Mary Ann Brewington (née Thorowgood) who were married in Romford, Essex in AD 1842. The couple moved to Staverton Row in Newington (now beneath the Elephant and Castle roundabout) at some point between AD 1842 and 1843 where William was presumably born. Following his death the couple moved to Clapham where they had another son in the autumn of AD 1845 (Frederic George Brewington).

8.6 Discussion of Phase 6 – Late 19th century

- 8.6.1 Phase 6 mostly related to the construction of St Gabriel's Church and the closure of the Vaults. Following the decision by the Board of Works to demolish St Mary's in AD 1871 in order to widen Newington Butts, the church moved to Kennington Park Road in AD 1876. St Mary's had been levelled by this point in time and the building materials were auctioned off in the same year. The associated Rectory is also believed to have been taken down during the same episode.
- 8.6.2 The decision to construct St Gabriel's for mission purposes and as a Chapel of Easement to St Mary's at the northern end of the churchyard grounds clearly had a significant impact on the underlying cemetery. Indeed, a note discovered by Dr.

Christopher Constable (Senior Archaeology Officer for Southwark) at the Southwark Local Studies Library in regards of the construction works reads as follows:

'Aug 23rd 1873

St Gabriel's Church building site

*In order to effect this it is necessary that
some of the bodies and remains in the
churchyard should be exhumed, and this
is now being done, the remains being re-interred
in a number of vaults which remained
almost empty when the churchyard
was closed for interment.'*

8.6.3 A comprehensive description of the new church is provided in the edition of 'The Building News' published on August 22nd AD 1873 (p209). Here it states how the church was to be constructed at a cost of £4,000 by the builders Messrs. Lathey Bros., of Battersea with Mr Hudson as the clerk of Works. The architect is recorded as Mr J. E. K. Cutts and interestingly, the following quote relates to the construction design:

'The building is to be of a plain substantial character, and will be built upon piers and arches, instead of upon continuous footings, in order to disturb as little as possible the graves of people interred in the churchyard' (The Building News, Vol 25 1873 p209)

This description clearly matches the foundations revealed during the excavation (Plate 3), and further detail of their construction is provided in the September 26th edition of the same magazine:

The arches and piers on which the church stands were put in thus: - The piers were first built up to the to the springing level of the arches; the ground between the piers was then cut away at the soffit of where arches were to stand and at the proper curve, thus forming a centre, cut out of the earth for the arches. This was rendered with a white coat of mortar to make the curves perfectly true. The brick rings were then built over, and it has been found an economical and expeditious way of treating the matter' (The Building News, Vol 25 1873, p338).

The architectural design and layout of the new church is presented on p340 of the same magazine and the foundation stone is believed to have been laid on Monday 29th September AD 1873 (The Building News Vol 25 1873, p338).

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- 8.6.4 Despite the attempts to minimize disruption by means of the use of foundation arches, the deep footings required for the new church clearly truncated and disturbed significant numbers of burials within the cemetery, as the note of August 23rd states. The small portion of the graveyard revealed during the excavation portrayed how densely populated the churchyard was, and the impact of St Gabriel's footings within this zone was extensive. If the entire ground plan of the new church is taken into account, then the numbers of burials which must have been displaced by the construction project is considerable. It has previously been recorded that the remains of around 500 bodies were removed and placed in a special vault, with another 13 bodies reburied in Nunhead Cemetery at the same time (Woollacott 2012, 55). The 500 bodies are referenced as coming from the crypt of St Mary's, although if this was the case then the St Mary's Crypt must have been substantial. It seems far more likely that many of these remains were in fact from the cemetery itself, and that the 'special vault' was actually the Vault structure which had been extant on the site for nearly 40 years.
- 8.6.5 The Vaults were clearly sealed during the construction of St Gabriel's. The close proximity of the northern side of the church to the Vault openings would have made further interment impossible, and once the footings of the new church had been completed and no more remains were to be exhumed, the Vault openings were permanently blocked up. It is therefore the case that the human remains disturbed by the construction project were either deposited as disarticulated charnel in a number of Vaults or, when entire coffins were recovered, they were placed intact within the empty chambers. The large quantities of coffin fittings and fragments present amongst the charnel certainly added a macabre element to the archaeological investigation, and the excavation of St Gabriel's footings must have been a most unpleasant experience for the construction workers involved.
- 8.6.6 Perhaps one of the most interesting aspects of the closure of the Vaults was the presence of the arranged charnel in Vaults 15, 16 and 20. This suggested that the empty Vaults not only provided a convenient place to store the disarticulated human remains within a large empty structure on consecrated ground, but that an attempt was also made to honour the dead. The use of the Vaults as an ossuary or charnel house will require further investigation at publication stage, but at this point it does appear somewhat unusual in a 19th century context. Two of England's most famous surviving ossuaries are at St Leonard's Church in Hythe, Kent, and at the Holy Trinity Church in Rothwell, Northamptonshire. The first reference to the St Leonard's ossuary dates to AD 1678, although the remains present were most probably exhumed when the church was extended in the 13th century. Much the same also appears to have been the case at Rothwell with the remains recorded at Holy Trinity also believed to be 13th century in origin.

8.6.7 Within London a further medieval charnel house has been excavated at the Augustine Priory and Hospital of St Mary Spital, although this structure was cleared during the 17th century (Gilchrist & Sloane 2005, 41). The function of such structures for the purposes of storage within congested urban cemeteries is certainly comparable with the Vaults at St Mary's, although the medieval concept of bodily resurrection associated with ossuaries is unlikely to correlate in this instance (Gilchrist & Sloane 2005, 41). The understanding that bones had to be defleshed prior to post-decompositional movement rests in the notion that the disturbance and disarticulation of fleshed corpses led to cemetery contamination. In AD 1299 Pope Boniface VIII decreed that once bodies had returned to ash there was no objection to their being dispersed from the grave or relocated. This belief is recorded in relation to the Charnel House at Norwich Cathedral Priory where in a Charter of AD 1316 it states:

'in the carnary beneath the said Chapel of St John we wish that human bones, completely stripped of flesh, be preserved seemly to the time of general Resurrection' (Gilchrist & Sloane 2005, 42).

The storage of the disarticulated human remains within the St Mary's Vaults was conducted long after such ideas had passed, yet it does reinforce the concept of the Vaults being an acceptable place to inter the skeletal parts; that is, within a structure with a retained and profound religious aspect to it. Post-medieval charnel houses appear to be particularly rare within Britain, which makes the use of the Vaults for this purpose somewhat unusual. More investigative work will need to be undertaken on this subject, but at present one of the few proximate examples is the Charnel House at the Church of St Nicholas in Deptford. This structure was built in AD 1697 but has long since been cleared of the remains it once housed.

8.6.8 The source in regards of the construction of St Gabriel's stipulates that the Vaults were almost empty when the churchyard was closed. This suggests that the Vaults had either failed as an economic enterprise with little uptake in regards of burial, or that families decided to remove their relatives from the chambers prior to closure. The establishment of large cemeteries such as West Norwood in AD 1836 and Nunhead in AD 1840 may also have had an impact in this regard, with burial elsewhere being perhaps cheaper and more congenial within a modern, open setting. In regards of the coffins present within the Vaults several facts can be established. As the Vaults were not completed until some point between AD 1834 and 1835, the remains of Mrs Sarah Poignand were clearly not within their original location. Sarah was born Sarah Ellis in c. AD 1801 and was a resident of the Parish of St Mary Newington when she married Hippolitus Poignand, an indigo broker, on the 3rd of June AD 1825. She died of unknown issue on the 23rd March AD 1826 and was buried at St Mary's five days later (Thompson, this report). Her burial evidently took place between eight or nine years earlier than the construction of the Vaults, and the presence of her coffin along

with a number of other lead coffins in Vault 2 suggests that her remains were likely to have been moved during the clearance of the cemetery.

- 8.6.9 In Vault 3, the burial of Fran Talbot Esq. poses an interesting problem. Francis Talbot was the eldest son of Captain George Talbot of the Royal Navy. George died in AD 1782 following the sinking of the Grosvenor East Indiaman which is recorded as one of South Africa's most famous shipwrecks (Taylor 2005, 131). Francis' brother, Montague, was both an actor and manager and proprietor of the Belfast Theatre (Gentleman's Magazine 1831, 473). Sadly, Francis doesn't seem to have been quite such a colourful character, and is recorded in Montague's obituary as a bachelor of good fortune and private habits, near London (Gentleman's Magazine 1831, 473). Confusion surrounds the date of his age on the coffin breastplate which suggested that he was 18 years of age when he died on May 30th AD 1838. He was however 70 years old and was buried on the 6th of June. At this time he was residing at Penton Place (Thompson, this report). Francis' coffin may well represent the only original interment within the Vaults as, at the time of his death, the structure was most certainly in operation.
- 8.6.10 Vault 12 housed brother and sister, William and Elizabeth Sedgwick. Records trace their parents as William and Amelia Bayne Sedgwick who were married at the Parish Church of St Dunstan's and All Saints in Stepney on the 20th of December AD 1831. Born in Shadwell, Amelia's maiden name was Williams. William appears to have been a South London resident however, with St Mary Newington seemingly his mother parish. At the time of their wedding both William and Amelia are recorded as 25 years of age and William was living in St James' Westminster where he was recorded as a warehouseman on Regent Street. William Sedgwick was the first child of William and Amelia and was born on the 23rd of December AD 1832 in St James' Westminster. He was baptised on the 23rd of February AD 1833 at St James' Church in the same borough, but died on the 10th of September AD 1834. He was buried at St Mary Newington six days later. There is clearly some confusion with his coffin breastplate, which recorded his death on the same date in 1832 and is evidently a mistake. The reason for the burial of William at St Mary's when his parents resided in Westminster is again likely to relate to his father's relationship with the church. It seems that William's mother (born Penelope Watts) and sisters (Mary and Ann Sedgwick) were both buried here, which certainly suggests a link.
- 8.6.11 Shortly after the death of William, the Sedgwick's had another child, Amelia, who was born on November 1st AD 1834, again in St James', Westminster. Amelia survived but their third child, Elizabeth Lee Sedgwick was not quite so fortunate. Elizabeth was born on the 19th of July AD 1836 in St James' Westminster like her brother and sister before her. She passed away on the 29th of July AD 1837 and was buried on the 4th of August in the same place as William; at St Mary Newington. As with Francis Talbot,

questions may be raised here in regards of the burial of the Sedgwick children within Vault 12. William died in AD 1834, a date which in all likelihood precedes the completion of the Vault structure. The date of Elizabeth's death would fit with the operative use of the Vaults, and it is therefore possible that upon Elizabeth's death the Sedgwick family arranged for her to be interred within a chamber and that William's coffin was subsequently moved into the same Vault. This may well explain why William's coffin was resting on top of Elizabeth's. Following the death of Elizabeth, Amelia and William went on to have another five children all of whom survived. In AD 1851 they were still living at 5, 7 & 9 Regent Street, which in AD 1841 was occupied by Howell & James, warehousemen. By the early AD 1860's the Sedgwicks had moved to 42 Baker Street and William is described as a retired jeweller and silk merchant. By AD 1871 they were living on Fore Street in Seaton, Devon (Thompson, this report).

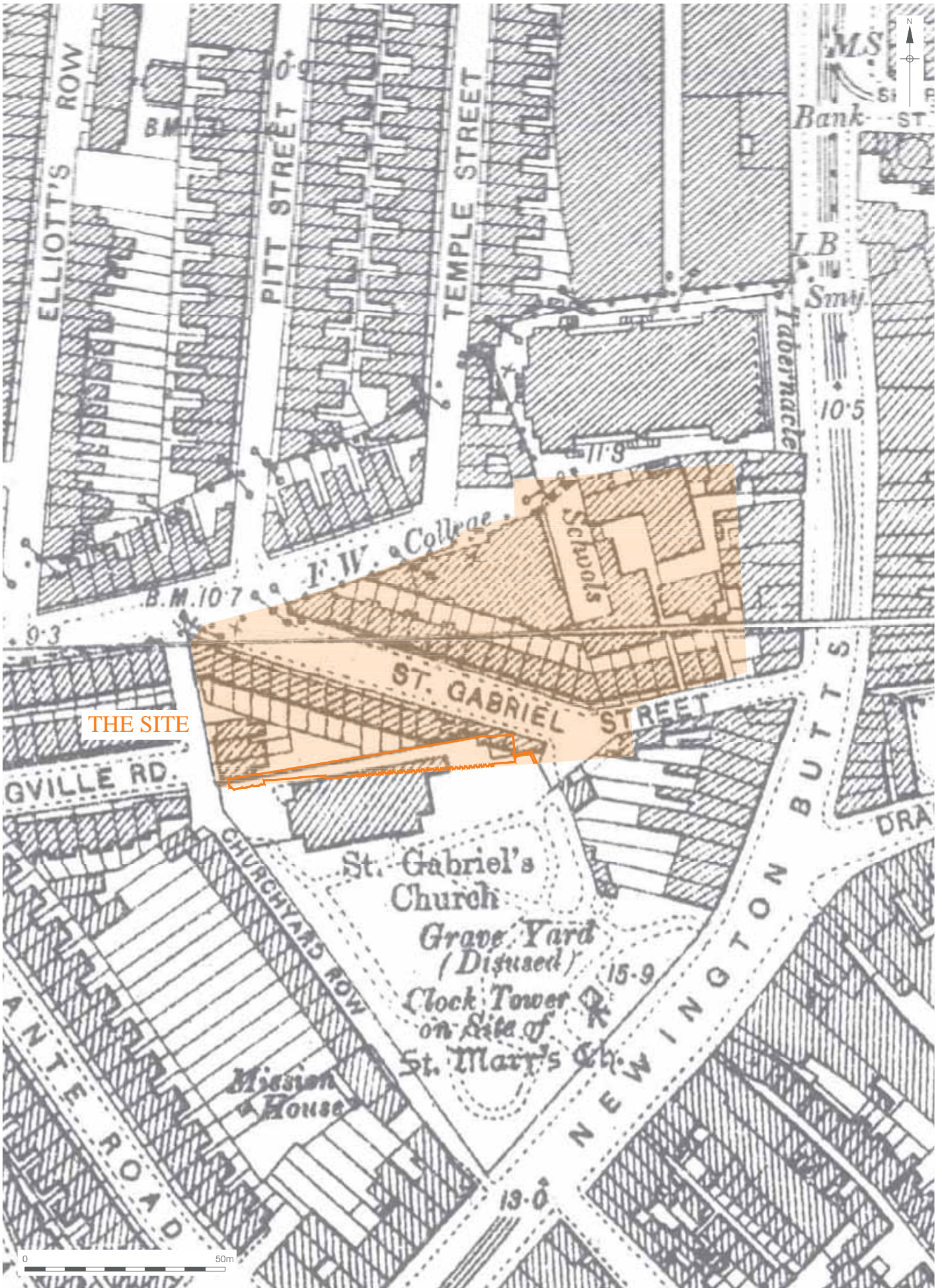
8.6.12 The final coffin within Vault 12 belonged to Susannah Watts, and forming a link between this individual and the Sedgwick children was initially rather trying. Susannah died on August 31st AD 1845 aged 84 and was buried on the 8th of September. The position of Susannah within the same Vault as William and Elizabeth Sedgwick primarily led to the conclusion that the three coffins were moved into the chamber during the construction of St Gabriel's. At the time of her death however, Susannah is listed as living on Albany Road in Camberwell in a house which she shared with a certain Francis Sedgwick (aged 49), Sophia Smith (aged 50) and a live in domestic servant. The fact that she was living with a member of the Sedgwick family certainly suggests a link, but it should also be noted that Susannah shares her surname with William Sedgwick senior's mother. It is therefore possible that Susannah may in fact have been William and Elizabeth's great-aunt and that Vault 12 does indeed represent a family crypt. Placing Susannah's coffin into the chamber may also have resulted in the coffins of William and Elizabeth being moved, and hence William's coffin resting on top of Elizabeth's.

8.6.13 The final discussion in regards of Phase 6 concerns the development of the terraced properties on the north side of the old cemetery wall to the east of the Vault structure. These two adjacent dwellings were located on the south side of the newly developed St Gabriel Street, which occupied the land formerly belonging to the Rectory / Parsonage House. St Gabriel Street is not present on the Ordnance Survey map of AD 1871, but is clearly displayed on the AD 1897 edition. This suggests that it was built at the same time as the new church, following the demolition of the Rectory in conjunction with the levelling of St Mary's. According to later maps, the two properties exposed during the excavation process were numbers 2 and 4 St Gabriel Street. The street is depicted on Booth's Poverty map of AD 1898-99 as poor, with the properties on the north side of the road at the eastern end portrayed as of the lowest class –

vicious and semi criminal. Indeed, Booth himself recorded St Gabriel's Street on June 12th AD 1899 as:

'poor and vicious, thieves & prost.: used to be all brothels at the NE end but cleared out two years ago by the help of the Vigilance Association. Some prost. still remain but no brothels: The infamous 'Girdle' gang came from here. When the brothels were turned out they migrated and were discovered in a coffee house at the east end of Graham Street in Hackney: Other prost. went to Deptford: Great mass of bread and paper in street: Windows dirty, patched & broken. Sales (Police Sergeant) has had men out dressed as females to convict the brothels but he never succeeded 'they always know'. (Booth 1899, B365 p11-13)

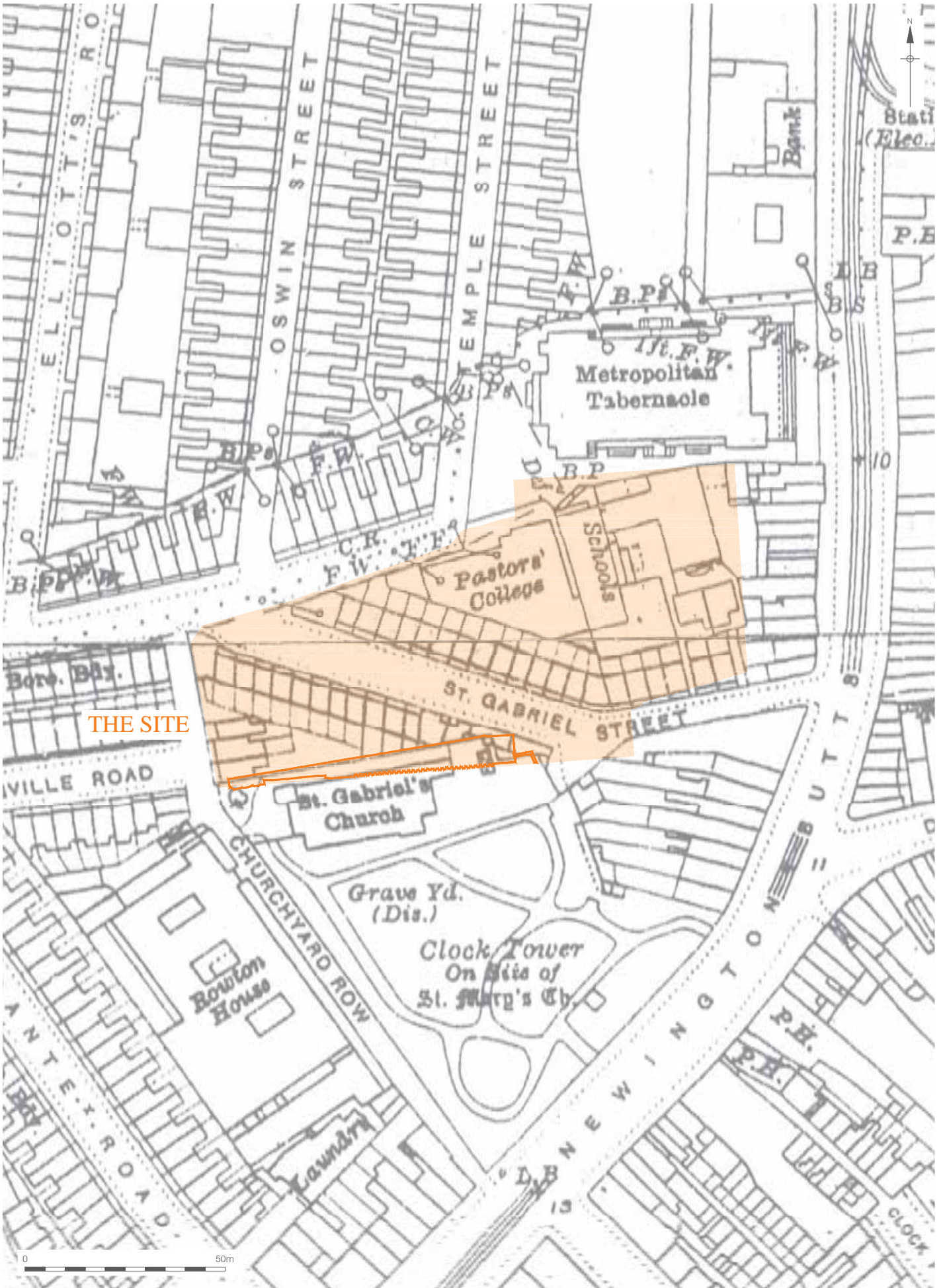
8.6.14 St Gabriel Street did not suffer extensive damage during the Second World War, but by AD 1950 was in a particularly poor state, with many of the houses on the south side of the street missing on the Ordnance Survey map or recorded as ruins. The map of AD 1968 shows the site as empty with all of the St Gabriel Street properties demolished.



8.7 Discussion of Phase 7 – Modern

8.7.1 The only feature recorded in association with Phase 7 was the concrete structure located at the eastern end of the excavation area. This had previously been identified during the evaluation and was interpreted as a Second World War air raid shelter. Upon reviewing the map regression of the study site however, this interpretation seems most unlikely. Although no structure is present in this area of the site on the Ordnance Survey map of AD 1897, one is clearly depicted on the AD 1916 edition; some time prior to the outbreak of the Second World War. The structure is again present on the Ordnance Survey map of AD 1950, although by this point in time it appears to have expanded somewhat. The hatching depicted within the structure on the AD 1916 map may well suggest that it was a glass house, yet this infilling is also used on the AD 1950 map within the footings of St Gabriel's which was demolished in AD 1937. At present, the function of this structure therefore remains ambiguous.

8.7.2 The final aspect of the site concerned the damage which had been inflicted upon the Vaults. In many instances the roofs of the chambers were broken and had been backfilled with modern material, including fragments of sheet asbestos roofing tile. This was the case in Vaults 1, 2, 3, 4, 5, 6, 7 and 8, all of which were at the eastern end of the excavation. Vaults 9, 10, 11 and 12 remained intact, although Vaults 13 and 14 had also been damaged. Again, Vaults 15, 16 and 17 remained fairly well preserved, although Vaults 18, 19, 20, 21, 22, 23, 24 and 25 were all broken and contained modern backfill. Fragments of headstones from St Mary's cemetery were present within Vaults 18, 19, 21, 22 and 25. This damage is likely to have occurred during the construction of the Leisure Centre, and the asbestos roof fragments were identical to those used on the Sports Hall.



9 RESEARCH QUESTIONS

Questions arising out of the excavation are as follows:

- 9.1** Can any more information be revealed in regards of the local topography of the Elephant and Castle? Where did the relict channel of Lock Stream flow, and how does the site relate to the Rockingham Depression? What can the levels of the natural observed on the site inform us about the underlying natural landscape?

The Kempton Park River Terrace Gravels observed on the site are low, particularly when compared to the Southwark eyots situated further towards the north.

It is recommended that:

- 1) An attempt is made to locate the site within a topographic model of the local region.
- 2) Efforts are made to locate the former relict channel of Lock Stream.

- 9.2** What is the significance of the peat deposit revealed during the removal of the Leisure Centre footings? Is it comparable with the peat exposed during the watching brief of 1977, and how does it correlate with other peat units discovered within the Southwark and Lambeth region?

A horizon of peat forming part of an alluvial sequence was exposed during the removal of the Leisure Centre footings. A similar horizon was discovered during a watching brief on the site in 1977 and radiocarbon analysis of this layer dated it to between 1,200 and 850 BC (Tisbury IV). The layer was therefore interpreted as mid to late Bronze Age in date.

It is recommended that

- 1) The peat is compared to similar deposits within the Southwark and Lambeth region
- 2) The possibility of getting a radiocarbon date from the layer is investigated.

- 9.3** Can any more information be discovered in regards of the large east-west aligned ditch belonging to Phase 3? Did it function in a drainage capacity or as a moat, or

was it simply a property boundary? Can any further information be recovered in regards of the 'pond' situated to the east of the ditch Rocque's map?

A large east-west aligned ditch was recorded in association with Phase 3 and has previously been referenced in historical texts as a moat which surrounded the Parsonage to the north. No waterlain fills were observed within the feature however, although it did form a clear boundary line with the plot of land to the south.

It is recommended that:

- 1) Historical research is undertaken in order to find out further information relating to the ditch.

- 9.4** When was the northern cemetery wall constructed? Did it relate to the works of AD 1756-1757 and can any further information be garnered in regards of the cemetery expansion?

A substantial east-west aligned wall was constructed on the south side of the ditch during Phase 3 as part of an expansion of the St Mary Newington cemetery.

It is recommended that

- 1) Further historical research is undertaken in relation to the expansion of St Mary's during the 18th century and the construction of the north cemetery wall.

- 9.5** Did the chalk footing revealed during the removal of the Leisure Centre foundations form part of the Parsonage / Rectory? Is there any more information on the history of this building and how it developed over the years?

During the removal of the Leisure Centre footings a chalk foundation was observed in section above the alluvial sequence. This foundation was situated in the area of the former Parsonage / Rectory and is believed to have related to this earlier structure.

It is recommended that:

- 1) Historical research is undertaken into the history and development of this building.

- 9.6** What is the significance of the material recovered from the backfill of the large east-west aligned ditch? What can the various assemblages tell us about the industry and social fabric of Newington during the mid 19th century?

The large east-west aligned ditch was backfilled with refuse during the mid 19th century as part of a re-landscaping episode. The material recovered suggested the proximity of a public house, a white lead manufacturer, a colourshop, a knackers' yard and a furrier. The public house assemblage may have derived from the Queen's Head 'tea rooms' which once stood close to the excavation area.

It is recommended that:

- 1) Historical research is undertaken into the proximity of these industries to the study site.
- 2) The ceramic assemblages are compared to known contemporary groupings from public houses, colour shops and lead manufacturers.
- 3) The animal bone is compared to known examples from furriers' and knackers' yards.

- 9.7** Can any more information be unearthed relating to the construction of the Vaults? Who was employed to build them? Was there a necessity to construct them, or were they a speculative investment? Are there any comparable contemporary examples? Is there any information relating to the use of the individual crypts and how much it cost to be interred within one?

Initial historical research has recorded that the Vaults were designed by Mr Christopher Edmonds and that they were built between AD 1834 and 1835.

It is recommended that:

- 1) Further historical research is undertaken in an attempt to find out any further information in regards of the construction and use of the Vaults.

- 9.8** Can any more information be revealed in regards of the cemetery inhumation? Are there any records in regards of burial within this area of St Mary's graveyard?

Due to the soil conditions, the coffins recorded in association with the inhumations survived in a very poor condition. This meant that in only one instance was a legible

coffin breastplate recovered. The burials recorded are known to have occurred between the construction of the Vaults in AD 1834-5 and the closure of the cemetery in AD 1854.

It is recommended that:

- 1) The possibility of the burial records providing us with more information in regards of burial within this area of the cemetery is investigated.

9.9 Can the origins of the burial population be reconstructed? Were the people of Newington of relatively local origin, or was there a draw on people from further afield? If so, what were the reasons for this?

Although initial historical research suggests that many of the individuals identified by name during the investigations came from the London region, there is some evidence for migration to the city.

It is recommended that:

- 1) The demographic profile revealed by the burial records is compared with the demographic profile resulting from the human bone analysis.
- 2) The burial records may well provide a good profile for the origins of the cemetery population. This model should be tested through $^{87}\text{Sr}/^{86}\text{Sr}$ analysis undertaken on tooth samples from a sub section of the burials.
- 3) The reasons behind population expansion in Newington during the late 18th to 19th century should be investigated.

9.10 What can the human remains inform us about life and death in the Newington during the mid 19th century? How does the cemetery compare to contemporary London burial grounds in regards of age ratios, disease, fractures, general health and diet of the population etc? Why does there seem to be a higher number of juveniles at St Mary's when contrasted with other mid 19th century cemeteries?

Comparing the human remains recovered from St Mary Newington to other contemporary London cemeteries will be a most important aspect of any future publication.

It is recommended that:

- 1) Further analysis is undertaken in order to study the demography and pathology of the cemetery population
- 2) Some human remains will require x-rays (see Langthorne, this report)
- 3) A subsample of the burial assemblage is subjected to a C&N and H&O isotopes determination on bone samples. The results should be analysed and interpreted in relation to their significance in regards of health and diet.
- 4) The possibility of isotopic analysis on the potential hair sample is investigated.
- 5) Historical research into illness and disease within Newington during this period is undertaken

9.11 What is the significance of the post-mortem dissection, and why do many of the individuals subject to this occurrence appear within the same stacks? Are there a particularly high percentage of these operations at St Mary's when compared to other contemporary cemeteries? Do these burials relate to the recorded sale of the bodies of workhouse inmates to hospitals during this period? Does the distribution of these burials across the excavation area relate to the manner of their disposal following dissection?

A total of 21 individuals had been subject to some form of post-mortem dissection. This does seem a high proportion when compared to several other contemporary cemeteries and further examples were noted within the charnel located in the Vaults. It was also noted that many of the individuals who had undergone these procedures were situated within the same burial stacks which were generally located right up against the Vaults. This suggested that many of the burials had derived from an institution such as a workhouse or hospital, and the trial of Albert Feist (Master of the Newington Workhouse) in AD 1858 implied that the sale of workhouse corpses to Guy's hospital had been ongoing in the area for some time.

It is recommended that:

- 1) The occurrence of post-mortem dissection at St Mary's is compared to other contemporary cemeteries.
- 2) Further historical research is conducted into the trade of workhouse corpses to hospitals for dissection and their subsequent burial.

- 3) Isotopic analysis is undertaken on the dissected remains and compared to the the rest of the cemetery population. This may reveal differences in diet in regards of workhouse inmates and the rest of the population.

- 9.12** How do the coffin fittings and furniture and the recovered small finds compare with other contemporary material within the London region.

The small finds and coffin fittings and furniture should be compared and contrasted with similar contemporary material within the London region.

It is recommended that:

- 1) The small finds and the coffin fittings and furniture are compared with other contemporary material within the London region.

- 9.13** Can any more information be recovered in regards of the identified burials – William Brewington, Sarah Poignand, Francis Talbot, William and Elizabeth Sedgwick and Susannah Watts?

The above mentioned were the only inhumations which could be identified during the excavation. Several rubbings were taken of the nameplates and these should be included in any further publication.

It is recommended that:

- 1) The possibility of getting any further information in regards of these individuals should be investigated.
- 2) The rubbings taken of the breastplates should be included within any further publication.

- 9.14** Can any more information be recovered in regards of St Gabriel's Church? Why did it stand for such a short period of time? How well frequented was it? Is there any information on the demolition of the structure?

St Gabriel's church was consecrated in AD 1874 as a Chapel of Easement to St Mary's. It was redundant by AD 1936 and demolished in AD 1937.

It is recommended that:

- 1) Further research is undertaken in order to find out more information relating to the historical lifespan of the church.

9.15 What is the significance of the arranged charnel within the Vaults? Are there any contemporary accounts of this practice within Britain?

During the construction of St Gabriel's, the impact of the new foundations resulted in the removal of substantial quantities of human remains. These remains were then placed within empty chambers of the Vault structure which were subsequently sealed. In several instances the charnel had been arranged, effectively turning the Vaults in ossuaries or charnel houses.

It is recommended that:

- 1) Historical research is undertaken in an attempt to identify contemporary examples of this practise within Britain.

9.16 Can any more information be recovered in regards of the two domestic dwellings on St Gabriel Street? Who were the Girdle Gang?

Two properties identified as numbers 2 and 4 St Gabriel Street were identified during the excavation. Booth recorded the Street during his poverty survey of London and mentions that the 'Girdle Gang' were residents.

It is recommended that:

- 1) Further historical research is undertaken on the history of the two properties and of the street itself.
- 2) An attempt is made to find out information relating to the Girdle Gang.

9.17 What was the concrete structure identified at the eastern end of the excavation area?

A concrete structure identified during both the evaluation and excavation was initially identified as an air raid shelter. This structure first appears on the Ordnance Survey map of AD 1916 however, which makes this interpretation unlikely.

It is recommended that:

- 1) Historical research is undertaken in an attempt to ascertain the function of this structure.

10 IMPORTANCE OF THE RESULTS AND PUBLICATION PROPOSALS

10.1 IMPORTANCE OF THE RESULTS

10.1.1 The most important periods recorded during the Elephant and Castle Leisure Centre investigations are: 1) Underlying layers of prehistoric origin, 2) mid 18th to mid 19th century, 3) mid 19th century, 4) mid to late 19th century, 5) late 19th century.

Underlying layers of prehistoric origin

10.1.2 The earliest archaeological deposits revealed on the site comprised layers of clays and silts containing lenses of sand and gravel. These clean horizons appeared to have been water lain and were deposited under low energy conditions. As such they represented transgressive marine episodes and are likely to have been associated with either the Thames itself or a relict channel such as Lock Stream. The date of these layers within the main excavation area of the site is however unclear. To the north-east, similar deposits were revealed in section during the removal of the Leisure Centre footings. These were sealed by a horizon of peat which correlated with a near identical deposit exposed on the site during the construction of the Leisure Centre in 1977. This peat was radiocarbon dated to 1,200-850BC suggesting a mid to late Bronze Age date, and the similar levels between the peat observed in the 1970's and that excavated recently suggested that they formed part of the same horizon. The peat was then sealed by further layers of clay and silt which represent the upstream progression of the tidal head during the late 2nd millennium BC. Unfortunately, it was unclear if the horizons revealed in the main excavation area equated with deposition prior to or later than the formation of the mid to late Bronze Age peat horizon.

Mid 18th to mid 19th century

10.1.3 The first archaeological evidence of human activity on the site dated to between the mid 18th and mid 19th centuries. This comprised a large east-west aligned ditch which formed a boundary between Parsonage House to the north and an open plot of land to the south. Other than acting as a boundary ditch this linear feature may well have functioned in a drainage capacity, and material recovered from the primary fills suggested that initial infilling and silting did not begin until after AD 1780. A parallel fenceline was also recorded in association with the ditch. At some point a substantial east-west aligned wall was constructed on the south side of the ditch, and this is believed to relate to the expansion of the St Mary Newington churchyard. Based on cartographic evidence this expansion occurred at some point between AD 1738 and 1792-99, and may well relate to recorded development between AD 1756 and 1757. A section of wall foundation revealed during the removal of the Leisure Centre footings could also have belonged to Parsonage House.

Mid 19th century

10.1.4 During this period the large east-west aligned ditch was backfilled with waste material as the area was re-landscaped. The material recovered from the fills of the ditch was noteworthy and was reflective of local industries within the Elephant and Castle. The ceramic assemblage included groups associated with a public house, the manufacture of white lead and oil jars from a colour shop, whilst the animal bone assemblage suggested the proximity of a knackers' yard and a furrier. It was also during this period that a large section of the 18th century cemetery wall was removed and a considerable brick Vault structure comprising 25 individual crypts was erected along the northern edge of the excavation area. The Vaults were bonded into the remaining upstanding section of the earlier cemetery wall and marked a marginal northern expansion of St Mary's churchyard. Levelling layers were then deposited along the southern side of the Vaults as the ground level was raised, and large sections of the earlier wall were present within these horizons.

Mid to late 19th century

10.1.5 Following the construction of the Vaults, the empty plot of land situated between the new structure and the earlier cemetery wall to the south was put to use for the purposes of inhumation. During the excavation process c. 300 burials were removed from this area, with almost all of the inhumations resting in an east-west aligned supine position with heads located to the west and feet to the east. The coffins were generally recorded in a poor state of preservation and regularly left little more than a stain with the associated furniture and fittings. Stacking was a common occurrence with graves regularly containing five or six burials, often with neonates or infants at the upper levels of the stacks. Analysis of the human remains has proved of importance, with evidence of skeletal disease, healed fractures and post-mortem dissection. Burial ceased at St Mary's in AD 1854.

Late 19th century

10.1.6 In AD 1871 a decision was made by the Board of Works to demolish St Mary's in order to widen Newington Butts. The Church was subsequently relocated to Kennington Park Road and by AD 1876 the old church had been completely levelled. A new church was erected at the northern end of the old churchyard however, and in AD 1874 St Gabriel's was consecrated as a Chapel of Easement to St Mary's. The foundations of this church were revealed during the excavation, yet their construction had severely impacted upon the underlying inhumations. Many of these remains were removed during the construction process and were redeposited within the crypts of the Vault structure which remained empty. This redeposition comprised disarticulated

human bone, complete burials where coffins had been removed intact, or in several instances organised charnel which had effectively converted the Vaults to ossuaries or charnel houses. In three of the Vaults lead coffins were also present. Several of these coffins pre-dated the construction of the Vault structure which suggested that they had been reinterred as part of the graveyard clearance. In other instances it was possible that the coffins were in fact in situ, and that the individual chambers had been purchased as burial crypts. Following the reburial of the human remains the vaults were permanently blocked up. The only other archaeological evidence concerning this period related to the foundations of two domestic properties situated to the east of the Vaults. These footings belonged to numbers 2 and 4 St Gabriel Street, a terraced road which once crossed the site and is believed to have been developed at the same time as the church.

Significance and potential

10.1.7 The project will make an important contribution to a series of research priorities identified in the 2002 research framework formulated by the Museum of London with the assistance of English Heritage:

- The burial population from the site's mid 19th century cemetery context can significantly contribute to the understanding of London's inhabitants during this period. When combined with documentary evidence this can be used to improve our understanding of socioeconomic groups (i.e. Workhouse inmates) and the impact of disease. This is noted as an objective in 'A research framework for London archaeology 2002' (2002, 71).
- Analysis of the burial population and comparison with other commensurable sites can provide an insight into life within the ever expanding London region and how this growth affected the lives of the people on the margins of the conurbation. This is noted as an objective in 'A research framework for London archaeology 2002' (2002, 81).
- The site has the potential to contribute to our understanding of origin (ethnic diversity). Analysis of the cemetery population will also contribute to the further development of relevant recording, sampling and scientific techniques. This is noted as an objective in 'A research framework for London archaeology 2002' (2002, 85).
- The detailed study of the cemetery population will respond to the TS5 framework objectives of 'A research framework for London archaeology 2002' (2002, 85) in regards of demography, disease and death with respect to questions on life expectancy, origins, beliefs, status and burial practices. It will

also allow us to model demographic patterns based on documentary source material which will be tested against the excavation data.

- The investigations will respond to aspects of the TS6 framework objectives of 'A research framework for London archaeology 2002' (2002, 86) in regards of ideology, cult and religion e.g. synthesising data on known religious sites and identification of the role of the church.

10.2 PUBLICATION PROPOSAL

10.2.1 The results of the archaeological investigation will be published as a monograph. The format the publication will follow is that of a formal publication report:

- Abstract
- Introduction
- Geological and topographical background
- Archaeological background
- Archaeological evidence, by phase
- Discussion

The illustrations will include:

- Location plans
- Phase plans
- Plans of features and groups of features
- Sections
- Photographs
- Finds illustrations

11 CONTENTS OF THE ARCHIVE

The archive comprises:

The paper archive:

		Evaluation		Excavation	
		Drawings	Sheets	Drawings	Sheets
Context Sheets		-	98	-	1,109
Plans	1:20	6	17	407	526
Plans	1:10	-	-	6	6
Sections	1:10	9	11	11	19
Sketch	-	-	-	22	22

The photographic archive:

	Evaluation and Excavation
Black and White Negative Film (35mm)	931 Frames
Colour Transparency Film	943 Frames
Black and White Medium Format	80 Frames
Colour Medium Format	-
Digital Format	1,621 Frames

The finds archive:

Pottery	28 Boxes
Clay Tobacco Pipe	4 Boxes
Glass	7 Boxes
Animal Bone	14 Boxes
Human Bone	246 Boxes
CBM	1 Crate & 1 Box
Stone	1 Crate
Metal	28 Boxes
Small Finds	1 Box

Lithics	1 Box
Slag	1 Box

The environmental archive:

	Evaluation	Excavation
Bulk Samples	-	3
Column Samples	-	2

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APPENDIX 1 - ASSESSMENT OF THE HUMAN REMAINS

By James Young Langthorne

Introduction

During the archaeological investigation 316 individual articulated human skeletons were recovered from the post-medieval burial ground which lay beneath the footprint of the Elephant and Castle Leisure Centre. Additionally several thousand disarticulated elements of human bone were exhumed. This report contains the results of an assessment of the skeletal remains from these burials. A skeletal catalogue of the remains is included at the end of the report as is a list of the disarticulated human bone.

Methodology

The skeletal remains from the inhumation burials were analysed to assess the condition of the remains and where possible the age and sex of the individual. Additionally any gross pathology present was recorded to site and morphological changes described.

The condition and completeness of a skeleton affects the amount of data that can be recorded. The condition of the bone was recorded according to the stages of surface preservation suggested by McKinley (2004) and the completeness of the skeleton was based on a complete skeleton consisting of:

Skull	20%
Torso	40%
Arms	20%
Legs	20%

Age was assessed using the stages of epiphyseal fusion, dental development and eruption, dental attrition (Brothwell, 1981), changes within the pubic symphysis (Brooks and Suchey, 1990) and the auricular surface (Lovejoy, 1985). All individuals where ageing data could be collected were placed into one of the following age ranges:

Neonate	≤1 year
Infant	1 - 5 years
Juvenile	6 - 12 years
Adolescent	12 - 20 years
Young Adult	20 – 35 years
Middle Adult	35 – 50 years
Old Adult	50 + years
Adult	>20 years

?

Undetermined

Sexually dimorphic traits in the pelvis and skull were used to ascertain the sex of the individual. Each individual was placed into one of the following categories; male, female (positive identification), male?, female? (favourable comparison to a sex but not conclusive), indeterminate (inconclusive mixture of male and female traits), unknown (lacking elements that define sex) or N/A (not possible).

Results

Completeness

Skeletal completeness ranged from 3% to 95% present but the vast majority had more than 50% of the elements present. The skeletal completeness probably reflects a lack of truncation within many parts of the site.

Table 1: Skeletal Completeness

Completeness	Number of skeletons	Percentage
<25%	48	15.19
<50%	52	16.46
<75%	96	30.38
>75%	120	37.97

Demography

The largest age group amongst the burials were adults (69.30%), the largest proportion of which were attributed to the middle or older adult age range. Children were present amongst the group with the largest percentage made up of juveniles with a significant proportion of the assemblage consisting of infants.

Table 2: Age distribution

Age	Number of skeletons	Percentage
Neonate	11	3.48
Infant	23	7.28
Infant- Juvenile	2	0.63
Juvenile	52	16.46
Juvenile- Adolescent	1	0.32
Adolescent	4	1.27
Adolescent- Young adult	1	0.32
Young adult	33	10.44
Young adult- Middle adult	11	3.48
Middle adult	68	21.52
Middle adult- Older adult	23	7.28
Older adult	33	10.44
Adult (unspecified)	50	15.82
Undetermined	4	1.27
Total	316	100

The high level of adult skeletons within the assemblage coupled with the survival of necessary skeletal elements implies that a large proportion of the cemetery population could be sexed. The results of the assessment indicated that females or possible females were slightly more frequent within the assemblage, making up 34.25% of the group in comparison to men at 25.57%. However it was not possible to sex well over a third of the adult population, 40.18%, which mitigated against drawing a conclusion of a slight female bias within the cemetery population.

Table 3: Sex distribution

Sex	Number of skeletons	Percentage
Male	24	10.96
Possible male	32	14.61
Indeterminate	68	31.05
Possible female	50	22.83
Female	25	11.42
Inconclusive	20	9.13
Total	219	100

Pathology

Pathologies were recorded in 193 skeletons (61.08% of the entire assemblage); of which 92 had dental pathologies and 169 had skeletal pathologies. Of those affected 177 were adults, 14 were juveniles and the remaining 2 were of an undetermined age. Of the adults 67 were male, 51 were female and 59 were of unknown sex.

Dental Pathology

The principal dental pathologies recorded within the assemblage comprised 7 cases of individuals with dental abscesses, 33 cases of caries and 79 individuals with ante-mortem tooth loss, of which 73 had associated socket resorption including 5 which were entirely edentulous (ie all the teeth had been lost ante-mortem and the sockets completely resorped).

Table 4: Distribution of dental pathology in relation to age in male individuals.

Age	Abscess	Caries	A-M tooth loss only.	A-M tooth loss & Socket resorption	Edentulous
Young Adult	0	3	0	2	0
Young-Mid Adult	1	2	0	0	0
Mid Adult	2	4	0	8	0
Mid-Old Adult	0	2	2	0	0
Old Adult	0	2	0	8	1
Unspecified Adult	0	0	0	2	0

Table 5: Distribution of dental pathology in relation to age in female individuals.

Age	Abscess	Caries	A-M tooth loss only.	A-M tooth loss & Socket resorption	Edentulous
Adolescent	0	1	0	0	0
Young Adult	0	3	0	1	0
Young-Mid Adult	0	3	0	3	0
Mid Adult	1	7	2	14	0
Mid-Old Adult	0	0	0	9	0
Old Adult	0	0	0	8	3
Unspecified Adult	0	0	0	1	0

Table 6: Distribution of dental pathology in relation to age in indeterminate/inconclusively sexed individuals.

Age	Abscess	Caries	A-M tooth loss	Socket resorption	Edentulous
Juvenile	1	1	0	0	0
Juvenile-Adolescent	0	1	0	0	0
Young Adult	1	2	1	1	0
Mid Adult	0	1	0	3	1
Mid-Old Adult	0	1	0	2	0
Old Adult	1	0	1	4	0
Unspecified Adult	0	0	0	2	0

The most prevalent form of dental pathology was ante-mortem tooth loss, 79 cases (25% of the entire assemblage), closely followed by socket resorption, 73 cases (23.10%) of which 5 individuals, 3 old adult females, [243], [567] and [732], a single old adult male [1180] and [306] an inclusively sexed adult were entirely edentulous.

Ante-mortem tooth loss has been attributed to several causes including caries, a condition which was fairly frequent within the cemetery population, as can be seen in Tables 4-6 above. Tooth loss can also be the result of severe periodontal disease, in which the inflammatory reaction to an irritant such as calculus can result in alveolar resorption. Conditions such as syphilis or deficiencies within a group's diet which can lead to weakening of the bone, trauma and scurvy are also possible causes of ante-mortem tooth loss.

Although no particular trends in relation to the dental pathology and age were identified within the cemetery population, it is perhaps notable that there appeared to be a higher level of A-M tooth loss and subsequent socket resorption within females compared with male or indeterminately sexed individuals. This appears to be higher than the result that could be expected due to slightly larger representation of females within the assemblage and thus could be attributed to a potential difference in lifestyle between men and women.

Skeletal Pathology

Several skeletal pathologies were recorded from 169 individuals comprising 18 individuals suffering from metabolic conditions (such as cribra orbitalia and

possible osteoporosis), 17 cases of trauma (including fractured limbs and dislocations), 2 skeletons exhibiting congenital conditions, infectious diseases in 28 individuals (such as periostitis and possible treponematosi), other conditions (such as ossified soft tissue) were seen in 12 individuals and most frequently joint diseases (for instance osteoarthritis) which had affected 191 individuals. A number of individuals, 21 individuals, were also subject to post-mortem dissection, particularly craniotomies.

Tables 7-9: Skeletal pathology in relation to age in male individuals

Pathology Type	Metabolic			Trauma		
Age	Cribriform Orbitalia	Possible Osteoporosis	Osteomalacia	Gout	Fracture (Post- cranial)	Possible Dislocation
Adolescent	0	0	0	0	0	0
Adolescent- Young Adult	0	0	0	0	0	0
Young Adult	0	0	0	0	0	0
Young-Mid Adult	0	0	1	1	0	0
Mid Adult	2	0	0	0	1	1
Mid-Old Adult	0	1	0	0	0	0
Old Adult	0	1	0	0	2	0
Unspecified Adult	0	0	0	0	2	0

Pathology Type	Congenital	Joint Disease			Infectious disease	
Age	Symphalangism	Potential vertebral OA	Potential extra- vertebral OA	Other vertebral conditions (including Schmorl's nodes, porosity, osteophytic activity, fusion, etc.)	Non-Specific Infection	Possible Treponemal disease
Adolescent	0	0	0	0	0	0
Adolescent- Young Adult	0	0	0	0	0	0
Young Adult	0	0	2	3	3	0
Young-Mid Adult	0	0	1	1	0	0
Mid Adult	0	0	6	13	3	1
Mid-Old Adult	0	1	2	4	2	0
Old Adult	0	3	3	12	1	0
Unspecified Adult	1	2	1	6	1	0

Pathology Type	Other	Post-mortem dissection	
Age	Ossified soft tissue	Craniotomy	Post-cranial
Adolescent	0	0	0
Adolescent- Young Adult	0	0	0
Young Adult	0	1	0
Young-Mid Adult	0	0	0
Mid Adult	3	0	0
Mid-Old Adult	0	1	0
Old Adult	0	0	1
Unspecified Adult	0	0	1

Table 10-12: Skeletal pathology in relation to age in female individuals

Pathology Type	Metabolic			Trauma		
Age	Cribra Orbitalia	Possible Osteoporosis	Osteomalacia	Fracture (Post-cranial)	Possible Dislocation	Possible Corset deformation
Adolescent	0	0	0	0	0	0
Adolescent- Young Adult	0	0	0	0	0	0
Young Adult	0	0	1	0	2	1
Young-Mid Adult	1	0	0	0	0	0
Mid Adult	0	0	0	2	0	1
Mid-Old Adult	0	0	0	0	0	0
Old Adult	0	2	0	0	0	0
Unspecified Adult	0	0	0	0	0	0

Pathology Type	Joint Disease			Infectious disease
Age	Potential vertebral OA	Potential extra-vertebral OA	Other vertebral conditions (including Schmorl's nodes, porosity, osteophytic activity, fusion, etc.)	Non-Specific Infection
Adolescent	0	0	1	0
Adolescent-Young Adult	0	0	0	0
Young Adult	0	0	6	1
Young-Mid Adult	1	0	2	1
Mid Adult	4	2	17	3
Mid-Old Adult	0	4	9	1
Old Adult	2	5	12	0
Unspecified Adult	0	0	1	0

Pathology Type	Other		Post-mortem dissection	
Age	Ossified soft tissue	Hyperostosis frontalis interna	Craniotomy	Post-cranial
Adolescent	0	0	0	0
Adolescent-Young Adult	0	0	0	0
Young Adult	0	0	0	0
Young-Mid Adult	0	0	0	0
Mid Adult	1	0	0	0
Mid-Old Adult	0	1	1	1
Old Adult	3	0	0	0
Unspecified Adult	0	0	0	0

Table 13-16: Skeletal pathology in relation to age in indeterminate/inconclusively sexed individuals.

Pathology Type	Metabolic		
Age	Cribriform Orbitalia	Possible Osteoporosis	Osteomalacia/ Rickets
Neonate	0	0	0
Neonate-Infant	0	0	0
Infant	1	0	0
Infant-Juvenile	0	0	0
Juvenile	2	0	1
Juvenile-Adolescent	0	0	0
Adolescent	1	0	0
Adolescent- Young Adult	0	0	0
Young Adult	0	0	0
Young-Mid Adult	0	0	0
Mid Adult	1	0	0
Mid-Old Adult	0	0	0
Old Adult	0	1	0
Unspecified Adult	0	1	0
Unknown age	0	0	0

Pathology Type	Trauma				Congenital
Age	Fracture (Post- cranial)	Possible Sharp force trauma	Possible Dislocation	Ankylosis	Potential Osteogenesis Imperfecta / Achondroplasia
Neonate	0	1	0	0	0
Neonate-Infant	0	0	0	0	0
Infant	0	0	0	0	0
Infant-Juvenile	0	0	0	0	0
Juvenile	0	0	0	0	0
Juvenile-Adolescent	0	0	0	0	0
Adolescent	0	0	0	0	0
Adolescent- Young Adult	0	0	0	0	0
Young Adult	1	0	0	0	1
Young-Mid Adult	0	0	0	1	0
Mid Adult	0	0	0	1	0
Mid-Old Adult	0	0	0	0	0
Old Adult	0	0	1	0	0
Unspecified Adult	1	0	0	0	0
Unknown age	0	0	0	0	0

Pathology Type	Joint Disease				Infectious disease
Age	Potential vertebral OA	Potential extra-vertebral OA	Other vertebral conditions (including Schmorl's nodes, porosity, osteophytic activity, fusion, etc.)	Erosive arthropathy	Non-Specific Infection
Neonate	0	0	0	0	0
Neonate-Infant	0	0	0	0	0
Infant	0	0	0	0	0
Infant-Juvenile	0	0	0	0	0
Juvenile	1	0	0	0	2
Juvenile-Adolescent	1	0	0	0	0
Adolescent	0	0	0	0	0
Adolescent-Young Adult	0	0	1	0	0
Young Adult	1	1	6	0	0
Young-Mid Adult	0	1	2	0	0
Mid Adult	1	2	8	0	3
Mid-Old Adult	0	0	5	0	1
Old Adult	2	2	6	1	1
Unspecified Adult	3	8	11	0	4
Unknown age	0	1	1	0	0

Pathology Type	Other	Post-mortem dissection	
Age	Ossified soft tissue	Craniotomy	Post-cranial
Neonate	0	0	0
Neonate-Infant	0	0	0
Infant	0	0	0
Infant-Juvenile	0	0	0
Juvenile	1	0	1
Juvenile-Adolescent	0	0	0
Adolescent	0	0	0
Adolescent-Young Adult	0	0	0
Young Adult	0	0	0
Young-Mid Adult	0	0	0
Mid Adult	1	3	1
Mid-Old Adult	1	0	1
Old Adult	1	1	1
Unspecified Adult	0	1	6
Unknown age	0	0	0

In general no immediately identifiable trends correlated to age or sex with pathological conditions can be observed within the Elephant and Castle assemblage.

The most prevalent pathological conditions related to joint disease: 45 males, 52 females and 47 indeterminately or inconclusively sexed individuals suffered from one or more joint diseases comprising 45.57% of the entire cemetery population. Rib heads, metatarsals, elbows and the pelvises seem to be particularly affected by either traces or advanced forms of osteoarthritis.

The most prevalent form of joint disease within the adult portion of the assemblage related to the degeneration of the vertebral elements particularly Schmorl's nodes and osteophytic activity around the margins of the vertebral bodies. The levels of osteophytic activity have reached the point of ankylosis for 11 individuals: 3 males, 3 females and 5 indeterminately sexed adults.

The most interesting conditions apparent within the assemblage included a single possible case of treponemal disease in mid adult male [587], young-mid adult female [564] had a withered right arm with notable malformation at the glenohumeral joint (right shoulder) and a mid adult indeterminately sexed individual [771] that exhibited ankylosis of the right femur to the right acetabulum of the pelvis (right hip); intriguingly the long bone has fused at a right angle to the pelvis. This ankylosis of the joint may have been a result of femoral neck trauma followed by a long period of immobility with the leg kept in a position perpendicular to the rest of the body. Most significantly perhaps though all of the extant elements of [311], a young adult, are warped in appearance as well as being significantly smaller than those of an average adult skeleton. This may be the result of achondroplasia and either trauma or osteomalacia but could also conceivably be an extremely rare condition: osteogenesis imperfecta, colloquially known as brittle bone disease.

Low levels of a variety of conditions such as gout, cribra orbitalia and osteomalacia/rickets which are often associated with lifestyle or diet were found within the assemblage.

Finally it should be noted that 21 individuals had undergone some form of post-mortem dissection. The most prevalent operations were seen to have been craniotomies, the removal of part of the skull, typically the majority of both parietals and the frontal and parts of the occipital and possibly fragments of both of the temporal bones, to allow access to the brain. There were 8 instances of this procedure having taken place. In one case, skeleton [211], small pin holes

surrounded by copper staining on the skull indicated that the bone had been pinned or possibly hinged to allow the cranium to be re-sealed after the cranial cavity was exposed.

Disarticulated Bone

Disarticulated human bone was present in 240 contexts on site, several fragments were also removed from unstratified deposit [+] and crypts 15 and 16. Almost every element of the skeleton was accounted for in various states of preservation varying from very poor and fragmentary to complete bones in excellent condition.

In addition to a number of small pathological conditions such as cribra orbitalia, Schmorl's nodes upon vertebrae, healed fractures and traces of osteoarthritis there were also examples of more unusual conditions such as fused vertebrae C5-T8 which also exhibited scoliosis and vertebral collapse from context [742] and a fused trapezoid and second metacarpal from [741]. As with the articulated burials examples of post-mortem dissection were also found within the disarticulated assemblage.

The minimum number of individuals the entire collection of disarticulated bone represented was 56.

Recommendations for further work

The individuals that make up the skeletal assemblage are for the most part relatively complete and in a good or moderate condition. This gives an excellent chance to study both the demography and pathology of the cemetery population, as is reflected in the results of the assessment study detailed above.

A full analysis of the skeletons would allow for the creation of complete inventories for each skeleton and fuller recording of extant pathologies as well as the collection of metric and non-metric data, although given the damage to many of the long bones encountered within the assemblage it will not be possible to establish stature estimates for the entire population of this cemetery. At minimum it is suggested that full analysis be performed on all skeletons that are at least 70% complete and are in a good or good-moderate state of preservation in order to maximise that amount of data that could be extracted from the assemblage.

Furthermore although only 55% complete skeleton [311] should be added to this sub-set of the assemblage in order that its condition can be more thoroughly investigated. This minimal sub-set of the cemetery population would comprise 120 individuals¹ (approximately 38% of the entire cemetery population).

In addition to skeleton [311] further work would be desirable on a number of skeletons from this sub-set in order to establish definite identification of pathologies. Particularly useful would be X-rays on skeletons [311], [541], [564], [587], [771], [818], [855], [1067], [1211] and [1215] that would help to clarify a number of pathological conditions including osteoporosis, the presence of an abscess, the character of certain fractures and ankyloses, the nature of non-specific infections and the possibility of treponemal disease and osteogenesis imperfecta.

Photographs will have to be taken of a variety of the individuals and respective pathologies. There is a large quantity of disarticulated human bone from the site, most of which will have resulted from the disturbance of burials or from the chanel features. However it is unlikely that further work on this material will provide any further insights into the cemetery population although it would be useful to take photographs of some of the more interesting pathologies that occurred within the disarticulated assemblage such as the ovoid plaque (caused by an ulcer) on a rib from context [1019], the fusion of vertebrae C5-T8 from context [742] and a possible dislocation apparent on a scapula from context [471].

A small amount of hair, potentially human, was found with individual [264]. It may be worth researching whether there are valid trace elements or stable isotope studies that could be performed on this material. Teeth and longbones if a variety of individuals would similarly lend themselves to stable isotope studies.

The results of the analysis and any further work should be presented in a publication text with the demographic profiles and health of the group considered and discussed

¹ Burials 48, 62, 67, 86, 88, 156, 183, 188, 215, 225, 233, 251, 255, 264, 285, 299, 300, 306, 311, 321, 327, 329, 330, 336, 353, 362, 368, 372, 375, 378, 396, 401, 409, 412, 420, 424, 428, 432, 435, 439, 447, 473, 476, 495, 509, 528, 541, 552, 564, 567, 570, 575, 578, 587, 598, 603, 611, 617, 623, 632, 662, 673, 678, 679, 684, 687, 691, 695, 698, 699, 719, 727, 736, 748, 755, 762, 771, 775, 784, 789, 798, 805, 815, 818, 842, 851, 853, 855, 857, 963, 984, 990, 998, 1004, 1008, 1012, 1026, 1029, 1054, 1067, 1081, 1082, 1099, 1113, 1119, 1124, 1129, 1134, 1139, 1144, 1163, 1180, 1207, 1211, 1215, 1218, 1236, 229 A, 229 B & 445 A.

with reference to phasing, spatial distribution, and documentary source material. The pathologies present within the assemblage should also be discussed with reference to comparable burial assemblages.

Context no.	Completeness (%)	Condition	Age	Sex	Pathology/Other Comments
26	55%	Good-Moderate	Infant	N/A	Copper staining on vertebral arches.
48	70%	Good	Juvenile	N/A	Skull missing
55	40%	Moderate	Juvenile	N/A	Pelvis and legs missing
59	80%	Moderate	Young-Mid Adult	Male	OA-Left & Right feet MT1s. Juvenile pelvis [55] (right ilium) found within this box.
62	90%	Good-Moderate	Juvenile	N/A	None visible
67	70%	Good-Moderate	Juvenile	N/A	None visible
70	60%	Moderate	Neonate	N/A	Copper staining on skull.
72	75%	Moderate	Infant	N/A	None visible.
86	75%	Good-Moderate	Juvenile	N/A	Possible deformation of the mandible. Copper staining on left arm.
88	70%	Good-Moderate	Juvenile	N/A	None visible.
103	20%	Moderate	Mid Adult	Male?	Lower body only.
122	10%	Good	Juvenile	N/A	None visible

124	80%	Moderate	Mid Adult	Male?	Copper staining on ribs. Severe OA - Left and right femoral heads and left and right acetabulae.
156	80%	Good-Moderate	Young Adult	Female?	Copper staining on skull and vertebrae. Schmorl's nodes.
159	40%	Good-Moderate	Mid-Old Adult	Male	Copper staining on left femur. Post-mortem dissection: craniotomy. Caries. Osteophytic lipping on vertebral body margins. Profile alteration of left tibia?
163	65%	Good-Moderate	Mid-Old Adult	Indeterminate	Slight porosity and osteophytic lipping on vertebral bodies. Caries?
167	80%	Moderate	Mid Adult	Female?	Copper staining on right femur, left radius, right MT1 and right tibia. Left scapula - unfused acromion. Possible Schmorl's nodes. Caries. Dental overcrowding. A-M tooth loss and socket resorption on mandible.
180	3%	Good-Moderate	Infant	N/A	None visible
183	80%	Good-Moderate	Mid-Old Adult	Intermediate	Copper staining on skull and pelvis. A-M tooth loss and socket resorption. Osteophytic lipping on margins of vertebral bodies and traces of porosity on vertebral bodies. NB - Disartic bone found in this context
188	80%	Good	Juvenile	N/A	NB - Disartic bone found in this context (see disartic index).
194	70%	Moderate	Juvenile	N/A	None visible
205	65%	Good	Mid Adult	Female	Copper staining on left radius. A-M tooth loss and socket resorption. OA on vertebral articular facets?
211	60%	Moderate	Mid Adult	Indeterminate	Post-mortem dissection - Craniotomy (NB - copper staining and holes

					indicate that the skull has been hinged or pinned after the dissection took place).
215	90%	Good-Moderate	Mid Adult	Male	A-M tooth loss and socket resorption. Possible infection right ulna. Ossified xyphoid process.
221	65%	Good-Moderate	Adult	Male?	Copper staining on skull. Healed fractured rib. Slight traces of osteophytic lipping on vertebral body margins. Schmorl's nodes. OA on vertebral and sacral articular facets. Possible lamellar bone on left tibia. A-M tooth loss and socket resorption on mandible.
225	85%	Good-Moderate	Juvenile	N/A	None visible.
233	70%	Good-Moderate	Adolescent	Indeterminate	Possible cribra orbitalia.
237	25%	Moderate-Poor	Juvenile	N/A	None visible
240	30%	Good-Moderate	Mid Adult	Female?	Copper staining on left femur. Healed broken femoral neck (right) with large amount of excess bony spiculations (soft tissue ossification).
243	25%	Good-Moderate	Old Adult	Female?	Copper staining on vertebrae, sternum and ribs. Edentulous mandible. Soft tissue ossification on rib ends. Osteophytic lipping and porosity on vertebral bodies.
251	90%	Good-Moderate	Old Adult	Male	Copper staining on ribs, sternum and left radius. Caries. A-M tooth loss and socket resorption. Robust individual. Osteophytic lipping around margins of vertebral bodies and possible Schmorl's nodes. NB - Disartic bone found in this context (see disartic index).
255	70%	Good	Mid Adult	Male	A-M tooth loss and socket resorption. Slight osteophytic lipping and joint alteration on hand phalanx and right MT1.

259	65%	Moderate	Juvenile	N/A	Copper staining on skull.
264	90%	Good	Mid Adult.	Male	Copper staining on skull and left tibia. A-M tooth loss and socket resorption on mandible and maxilla. Caries. Abscess on mandible. Healed fracture left tibia distal end. Severe malformation distal end of right humerus and proximal ends of equivalent ulna and radius. Osteophytic lipping and porosity on vertebral bodies. Possible human hair (worth testing?)
285	85%	Good-Moderate	Mid Adult	Male	A-M tooth loss and socket resorption. Copper staining on vertebrae. Porosity on rib head facets, left scapula acromion and vertebral bodies. Osteophytic lipping on vertebral body margins.
291	40%	Good-Moderate	Mid Adult	Female?	A-M tooth loss and socket resorption. Osteophytic lipping around margins of vertebral bodies and slight porosity on vertebral bodies.
294	20%	Good	Mid Adult	Indeterminate	None visible.
297	60%	Good-Moderate	Adult	Male?	Copper staining on mandible, ribs and pelvis. Possible drill hole in right ilium. Healed fracture/ foreshortening of left radius and severe malformation of proximal head. Schmorl's nodes. Symphalangism. NB - Disartic bone found with this context (see disartic index).
299	85%	Good-Moderate	Infant	N/A	None visible.
300	80%	Good-Moderate	Infant-Juvenile	N/A	None visible.
306	75%	Good-Moderate	Mid Adult	Intermediate	Copper staining on sacrum. Edentulous mandible. Schmorl's nodes. Osteophytic lipping on margins of vertebral bodies. OA on sacral and L5 articular facets. NB Disartic bone found in this context (see disartic index).

311	55%	Good-Moderate	Young Adult	Indeterminate	Rickets? Brittle bone disease (Osteogenesis imperfecta)? Acondroplasia? Severe warping of almost all elements.
317	45%	Good-Moderate	Mid-Old Adult	Female?	A-M tooth loss and socket resorption. Some hand elements may have originated from skeleton [327]
321	80%	Good-Moderate	Old Adult	Female	Copper staining on skull. Porosity on vertebral bodies and OA on vertebral articular facets. Fusion of cervical vertebrae. Ossified soft tissue at articular facets of sternum. Possible traces of osteophytic lipping on distal end of metacarpals. A-M tooth loss and socket resorption on mandible.
327	75%	Good	Old Adult	Female?	A-M tooth loss and socket resorption. Traces of Schmorl's nodes.
329	75%	Good-Moderate	Young Adult	Male	Post-mortem: Craniotomy. Osteophytic lipping around vertebral body margins and Schmorl's nodes.
330	80%	Good	Young-Mid Adult	Female	No skull.
332	75%	Moderate-Poor	Adolescent-Young Adult?	Indeterminate	Osteophytic lipping, fusion and porosity of vertebral bodies.
336	85%	Good-Moderate	Juvenile	N/A	None visible.
338	75%	Moderate	Mid-Old Adult	Indeterminate	Copper staining on pelvis, skull and left radius. Schmorl's nodes. A-M tooth loss and socket resorption on mandible?
351	65%	Good-Moderate	Mid Adult	Female	No skull extant. Schmorl's nodes.
353	75%	Good-Moderate	Old Adult?	Female?	Severe OA - right humerus and on articular facets of rib heads. A-M tooth loss and socket resorption on mandible. Traces of osteophytic

					ipping on the margins of vertebral bodies.
360	65%	Good-Moderate	Old Adult	Female?	Copper staining on phalanges. No skull extant. OA on vertebral articular facets,
362	85%	Good-Moderate	Young Adult	Male	Copper staining on right tibia and left radius. Caries, A-M tooth loss and socket resorption. Schmorl's nodes.
367	60%	Moderate	Infant	N/A	None visible.
368	85%	Good-Moderate	Juvenile	N/A	Copper staining on skull.
370	50%	Good-Moderate	Young Adult	Female	Sacralisation of L5.
372	70%	Good-Moderate	Mid Adult	Female	Copper staining on mandible. Caries. A-M tooth loss and socket resorption on mandible. Porosity/possible OA on vertebral body facets.
375	80%	Good-Moderate	Mid Adult	Indeterminate	Copper staining on skull. A-M tooth loss and socket resorption. NB-Disartic bone found with this skeleton (see disartic index).
378	80%	Good-Moderate	Juvenile	N/A	None visible.
380	70%	Moderate	Old Adult	Male?	Copper staining on skull, ribs and left scapula. Left scapula with unfused acromion. Fusion of thoracic vertebrae. Porosity, Schmorl's nodes and osteophytic activity on vertebral bodies. OA on vertebral articular facets.
385	40%	Moderate	Adult	Indeterminate	No skull extant. Severely fractured left leg: femoral neck healed and foreshortened and distal shaft of tibia (with subsequent osteomyelitic infection (including void created by sequestrum). Osteophytic lipping around centrum of sacrum.

387	55%	Moderate	Juvenile	N/A	None visible.
391	60%	Moderate-Poor	Old Adult	Female?	Copper staining on skull. Osteoporosis? Osteophytic lipping around vertebral body margins. A-M tooth loss and socket resorption on mandible.
396	80%	Good-Moderate	Juvenile	N/A	Copper staining on skull.
401	75%	Good-Moderate	Juvenile	N/A	Copper staining on right femur.
406	70%	Moderate	Mid Adult	Indeterminate	Copper staining on skull. Osteophytic lipping and porosity on vertebral bodies.
409	75%	Good-Moderate	Young Adult	Indeterminate	Copper staining on mandible. Schmorl's nodes on vertebral bodies.
412	95%	Good	Mid Adult	Female?	Copper staining on skull. Caries. Osteophytic lipping and porosity on centrum of sacrum
420	90%	Good-Moderate	Old Adult	Male	Osteophytic lipping on left and right rib heads and vertebral body margins. Schmorl's nodes. Severe porosity and osteophytosis on sacral centrum. A-M tooth loss and socket resorption. Post-mortem dissection evident on left tibia (mid shaft) and right humerus (proximal-mid shaft)
424	80%	Good-Moderate	Mid-Old Adult	Female?	Copper staining on skull. A-M tooth loss and socket resorption. Osteophytic lipping and porosity on articular facets of rib heads. Schmorl's nodes on vertebral bodies. OA - left MCI.
428	85%	Good	Juvenile	N/A	Cribriform orbitalia in both orbits. Copper staining on axis vertebra. NB - Disartic bone found in this context (see disartic index).

432	70%	Good-Moderate	Mid-Old Adult?	Female?	No skull extant. Porosity and osteophytic lipping on vertebral bodies. Copper staining on right radius and right and left pelvis and femora. Severe possible OA left hip.
435	80%	Good-Moderate	Mid-Old Adult	Female?	A-M tooth loss and socket resorption. Osteophytic lipping and porosity on vertebral bodies.
438	50%	Good-Moderate	Mid Adult	Female?	Caries.
439	85%	Good-Moderate	Young Adult	Indeterminate	Copper staining on skull. A-M tooth loss and socket resorption. Caries. Possible maxillary abscess. Groove in maxillary dentition.
441	25%	Good-Moderate	Mid Adult	Male	Right arm, pelvis and legs only.
442	25%	Good	Mid Adult	Female	Legs, Pelvis and vertebrae only. Osteophytic lipping and porosity on vertebral bodies.
443	50%	Moderate-Poor	Adult?	Unknown	No skull and bulk of torso absent
447	75%	Good	Mid Adult	Female	Copper staining on skull. A-M tooth loss and socket resorption in mandible. Caries? Osteophytic lipping on margins of rib head facets. Slight porosity and osteophytic lipping on vertebral bodies. Lamellar bone on left tibia.
448	55%	Good-Moderate	Mid Adult?	Male?	Copper staining on skull. Interesting damage to the right parietal. Traces of schmorl's nodes and osteophytic lipping on vertebrae. Osteophytic lipping around the margin of the condyles of the left femur. Traces of lamellar bone on left tibia.
451	45%	Moderate	Old Adult	Female	Copper staining on skull and left femur. Severe A-M tooth loss and socket resorption. Porosity, possible schmorl's nodes and slight

					osteophytic lipping on vertebrae (notably the cervical). Osteoporosis? Possible osteophytic lipping on acromion of right scapula
456	30%	Good	Juvenile	N/A	NB - Disartic bone found in this context (see disartic index).
458	65%	Good	Infant	N/A	Copper staining on skull. Cribra orbitalia in right orbit
462	65%	Moderate	Old Adult	Female?	A-M tooth loss and socket resorption on mandible. Osteophytic lipping and schmorl's nodes on vertebrae.
465	80%	Moderate	Adult	Male?	A-M tooth loss and socket resorption. Copper staining on left arm, right leg and vertebrae. Osteophytic lipping and porosity and possible Schmorl's nodes on vertebral bodies. Manubrium fused to sternal body.
468	10%	Moderate	Adult?	Unknown	OA- Vertebral articular facets and osteophytosis on vertebral body margins and Schmorl's nodes.
473	70%	Good-Moderate	Juvenile	N/A	No skull extant (only mandible).
476	85%	Good-Moderate	Mid-Old Adult	Male	Caries. Slight A-M tooth loss and possible socket resorption on mandible. Osteophytic lipping and Schmorl's nodes on various vertebrae. Osteophytic lipping on sternal ends of clavulae. Severe OA (inc. Possible eburnation) on head of left femur and acetabulum of left pelvis. Possible periostitis on left tibia.
481	5%	Moderate	Juvenile	N/A	Right lower leg and partial foot only
484	35%	Moderate	Mid-Old Adult	Female?	Hyperostosis frontalis interna? A-M tooth loss and socket resorption. P-M dissection: Craniotomy. Porosity and expansion of right acetabulum- OA? Severe osteophytic lipping on vertebral body margins (esp. Lumbar)

488	30%	Good-Moderate	Young Adult?	Male	Severe infection (osteomyelitis) on left humerus (result of trauma?). Possible porosity/lesion on skull (frontal).
491	65%	Good-Moderate	Juvenile	N/A	Possible periostitis on skull.
494	30%	Good-Moderate	Neonate	N/A	None visible
495	90%	Good	Neonate	N/A	Cut on left frontal
497	60%	Good-Moderate	Juvenile	N/A	None visible
502	40%	Moderate	Adult?	Unknown	Copper staining on left scapula and skull. Osteoporosis? Possible OA on MT1s.
506	5%	Moderate	Adult?	Indeterminate	Partial left leg and foot only
507	55%	Moderate-Poor	Infant	N/A	Copper staining on skull
509	85%	Good-Moderate	Old Adult	Female	The majority of the maxillary and mandibular sockets resorped. Osteophytic activity around the margins of the auricular surfaces on the left and right ilia, several vertebral bodies, the joint margins on the sternum and several rib heads. OA on left and right MT1s. Copper staining on the right first rib, right clavicle and the right scapula.
513	60%	Good	Mid-Old Adult	Female	Schmorl's nodes. Slight osteophytic lipping around margins of sacral centrum and vertebral bodies.
517	10%	Good-Moderate	Adult?	Indeterminate	Lower legs only.

520	60%	Moderate-Poor	Young Adult	Male?	Caries. Possible periostitis on right femur. NB Disartic remains from this context (see disartic table).
524	25%	Good-Moderate	Adolescent?	Indeterminate	None visible.
528	80%	Good	Mid Adult	Female	Osteophytic lipping on vertebral bodies. Copper staining on skull and right tibia.
533	55%	Moderate	Adult?	Indeterminate	None visible
537	60%	Moderate	Juvenile-Adolescent	N/A	Copper staining on thoracic vertebrae. Caries. Possible trace of periostitis on metacarpal shaft. Traces of porosity and slight deformation of cervical vertebral articular facets. NB- Disartic bone found with this context and context [1067] (see disartic index).
541	90%	Good-Moderate	Old Adult	Male?	Caries. Copper staining on mandible, ribs, right clavicle and vertebral spines. Osteophytic lipping on vertebrae body margins. Porosity and osteophytic lipping on articular surfaces. Possible Osteoporosis.
543	80%	Moderate	Juvenile	N/A	Copper staining on vertebrae, skull and rib shafts.
545	5%	Moderate	Adult?	Unknown	None visible
549	60%	Good-Moderate	Juvenile	N/A	Copper staining on skull and left fibula. Soft tissue ossification on left tibia. Possible fracture/Infection (osteomyelitis?) On left humerus. Healed fracture? Possible infection of right humerus.
552	90%	Good-Moderate	Mid Adult	Male	A-M tooth loss and socket resorption. Possible cribra orbitalia in left orbit. Sacralisation of L5. Osteophytic lipping around vertebral body margins and porosity on vertebral bodies. Slight osteophytic lipping around margins of rib head facets. Soft tissue ossification on right and left ulnae heads. NB disartic bone found within this context (see disartic index)

556	85%	Moderate	Young Adult	Female	None visible
559	35%	Moderate	Adult	Indeterminate	Copper staining on right distal humerus. Osteophytic lipping, Schmorl's nodes and porosity on vertebral bodies. Possible OA on vertebral articular facets and on rib heads.
562	70%	Moderate-Poor	Old Adult	Indeterminate	Copper staining on skull. A-M tooth loss and partial socket resorption on mandible. Osteophytic lipping and porosity on cervical vertebrae.
564	95%	Good	Young-Mid Adult	Female	Some A-M tooth loss and socket resorption and caries. Lesion on right parietal. Withered right arm. Notable destruction/malformation at right gleno-humeral joint.
567	85%	Good-Moderate	Old Adult	Female?	Edentulous mandible. Porosity on vertebral bodies.
570	90%	Good-Moderate	Mid Adult?	Indeterminate	Copper staining on skull. A-M tooth loss and socket resorption. Osteophytic lipping around margins of vertebral bodies.
573	5%	Good	Adult?	Unknown	Copper staining on metacarpal
575	85%	Good-Moderate	Infant	N/A	Copper staining on skull
578	80%	Good-Moderate	Mid-Old Adult	Female?	A-M tooth loss and socket resorption.
582	10%	Good	Unknown	Unknown	Lower legs and feet only. Possibly related to skeletons [595] and [589].
587	75%	Good-Moderate	Mid Adult	Male?	Copper staining on right metacarpal and slight traces on ribs. Treponemal disease? (Skull and left ulna and left femur show signs of osteomyelitic infection however the remainder of the left arm, right arm and right leg seem entirely clear). A-M tooth loss and socket resorption. Slight traces of osteophytic lipping on margins of lumbar

					vertebral bodies.
589	15%	Good-Moderate	Unknown	Unknown	Torso elements: ribs, pelvis and vertebrae and left arm only. Schmorl's nodes. Possibly related to skeletons [595] and [582].
595	10%	Good-Moderate	Old Adult?	Indeterminate	Skull and vertebrae only. A-M tooth loss and socket resorption on mandible. Copper staining on skull and vertebrae. Possibly related to skeletons [582] and [589].
598	90%	Good-Moderate	Mid Adult?	Indeterminate	Copper staining on mandible. A-M tooth loss on left side of mandible. Osteophytic lipping on margins of rib heads and vertebral body margins. Schmorl's nodes. Severe infection (osteitis? osteomyelitis?) on right tibia
603	80%	Good	Juvenile	N/A	Copper staining on skull.
607	40%	Moderate-Poor	Adult	Unknown	Porosity and osteophytic lipping on vertebral bodies especially margins. OA: carpals, metacarpals and metatarsals. Possible copper staining on left ulna.
611	90%	Good-Moderate	Old Adult	Female?	A-M tooth loss and socket resorption. NB - Disartic bone found with this context (see disartic index for details).
617	85%	Good-Moderate	Old Adult	Male	Some A-M tooth loss and socket resorption. Osteophytic lipping, porosity and Schmorl's nodes on vertebral bodies.
620	65%	Good-Moderate	Young Adult	Female?	A-M tooth loss and socket resorption. Porosity and traces of osteophytic lipping on vertebral bodies.
623	95%	Good	Old Adult	Indeterminate	Copper staining on skull and mandible. Severe mandibular A-M tooth loss and socket resorption. Severe osteophytic lipping on margins of vertebral bodies and centrum of the sacrum.
626	30%	Moderate	Infant	N/A	None visible.

629	85%	Moderate	Juvenile	N/A	None visible
631	65%	Good-Moderate	Infant	N/A	None visible.
632	75%	Good-Moderate	Old Adult	Male?	Copper staining on ribs and clavulae. Osteophytic lipping and Schmorl's nodes on vertebral bodies. Lamellar bone on left and right tibiae and fibulae.
636	30%	Moderate	Infant	N/A	None visible.
645	30%	Moderate	Mid Adult?	Female	A-M tooth loss and socket resorption on mandible.
649	60%	Good-Moderate	Mid Adult?	Female	No skull extant. Osteophytic lipping/soft tissue ossification on margins of left and right auricular surfaces.
651	35%	Moderate	Infant	N/A	Indications that this is all the same skeleton despite being found in a somewhat scrambled state.
653	35%	Moderate-Poor	Neonate	N/A	None visible
654	45%	Moderate-Poor	Adult?	Unknown	Post-Mortem dissection: Left femur proximal shaft and right femur mid shaft. Osteophytic lipping on vertebral body margins and possible schmorl's nodes/porosity on vertebral bodies.
658	30%	Good-Moderate	Young-Mid Adult	Indeterminate	Possible Schmorl's nodes
662	70%	Good-Moderate	Mid Adult	Male?	Copper staining on skull. Slight osteophytic lipping on dens facet of atlas vertebra.
669	35%	Good-Moderate	Juvenile	N/A	Traces of OA on vertebral articular facets.

673	70%	Good-Moderate	Juvenile	N/A	Copper staining on skull.
678	70%	Good-Moderate	Neonate	N/A	None visible.
679	95%	Good	Mid Adult	Female?	Copper staining on skull, pelvis and sacrum. A-M tooth loss and partial socket resorption? Caries.
680	60%	Moderate-Poor	Mid-Old Adult	Indeterminate	Post-mortem dissection: Mandible and left femur. Fusion of two thoracic vertebrae at articular facets also porosity, Schmorl's nodes and osteophytic lipping on various vertebral bodies. Severe infection of left and right femora (osteitis or osteomyelitis). Possible osteoporosis?
684	70%	Good-Moderate	Mid Adult	Female?	A-M tooth loss and socket resorption. Slight osteophytic lipping and porosity on vertebral body. Copper staining on left tibia and femur (knee).
687	85%	Good-Moderate	Juvenile	N/A	Copper staining on skull and left ulna. Possible cribra orbitalia in right orbit.
691	75%	Good-Moderate	Juvenile	N/A	None visible.
695	85%	Good-Moderate	Mid Adult	Female?	Copper staining on left metacarpals. A-M tooth loss. Caries. Schmorl's nodes.
696	80%	Moderate	Old Adult?	Indeterminate	Copper staining on skull, sternum, ribs and mandible. A-M tooth loss and socket resorption. Possible infection and abscess on mandible. Periostitis on left tibia and femur shafts. Osteophytic activity, porosity, Schmorl's nodes and fusion of vertebrae (bodies and articular facets). Severe dislocation of left elbow with subsequent deformation of joint surfaces, OA and possible infection of distal humerus. NB - Disarticulated bone found in this context (see disartic index).

698	80%	Good-Moderate	Mid-Old Adult	Female	Copper staining on the skull, sternal end of left clavicle and pelvis. A-M tooth loss and socket resorption. Possible Schmorl's nodes. Traces of lamellar bone on right femur? Some disartic found with this context.
699	75%	Good-Moderate	Young-Mid Adult	Female?	Caries. Cribra Orbitalia in left orbit. Possible A-M tooth loss and socket resorption. OA on vertebral articular facet and porosity and Schmorl's nodes on vertebral bodies.
702	50%	Good-Moderate	Mid Adult?	Indeterminate	Post-Mortem dissection: Left femur proximal shaft, right femur distal shaft and craniotomy.
705	5%	Moderate	Adult?	Indeterminate	Partial right leg and foot. Severe infection (osteomyelitis/ osteitis?) on tibia and fibula.
706	40%	Good-Moderate	Mid Adult	Indeterminate	Post mortem dissection: Craniotomy, proximal shaft left femur and rib shaft? Severe infection in left leg (osteomyelitis?). Copper staining on sacrum. NB Some disarticulated elements also found in ths context (see disartic index).
713	65%	Good-Moderate	Young-Mid Adult	Female?	No skull extant. Copper staining on right fibula, ribs and vertebrae.
718	80%	Moderate	Infant	N/A	Copper staining on skull.
719	95%	Good-Moderate	Mid Adult	Male?	Caries. Possible traces of Schmorl's nodes.
722	60%	Moderate	Adult?	Unknown	Osteophytic lipping/ possible OA on right and left rib heads. Osteophytic lipping around margins of vertebral bodies. Post-mortem dissection of mid and distal shaft of right femur, possibly parts of the skull and midshaft left tibia. NB - Disartic bone found in this context (see disartic index).
727	85%	Good-	Mid Adult	Male?	Osteophytic lipping and fusion also Schmorl's nodes and porosity on

		Moderate			vertebrae. Copper staining on right clavicle and right femur.
732	65%	Good-Moderate	Old Adult?	Female?	Edentulous mandible. Porosity on vertebral bodies. NB - Disartic bone found with this context (see disartic index).
734	5%	Moderate	Adult?	Unknown	Osteophytic lipping on left patella. Traces of lamellar bone on tibia shaft. Post-mortem dissection: fibula shaft. OA-MT1?
736	75%	Good-Moderate	Young Adult?	Female?	Caries. Copper staining on left ulna. Possible rickets right and left tibiae and right fibula. NB Disartic remains from this context (see disartic table).
739	10%	Moderate	Adult?	Unknown	None visible
745	85%	Moderate	Old Adult?	Male?	Severe A-M tooth loss and socket resorption in the mandible. Osteophytic lipping and porosity on vertebral bodies and centrum of the sacrum. Copper staining on pelvis. Right patella severe osteophytic lipping around joint margins.
748	75%	Good-Moderate	Adolescent	Indeterminate	Copper staining on mandible, right femur and right hand carpals.
750	75%	Moderate-Poor	Mid Adult	Female?	Severe A-M tooth loss and socket resorption in the mandible. Copper staining on left clavicle.
753	15%	Moderate	Adult	Indeterminate	Infection in left tibia (osteitis? osteomyelitis?). Post-mortem mid-shaft left femur.
755	85%	Good-Moderate	Juvenile	N/A	Arms and legs: Rickets
758	55%	Moderate-Poor	Neonate	N/A	None visible.

759	20%	Moderate	Adult?	Unknown	Lower legs, feet and hands only.
762	70%	Good-Moderate	Juvenile	N/A	None visible
767	65%	Good-Moderate	Juvenile	N/A	Copper staining on femur. Post-mortem dissection: skull (section taken from near orbit)
771	80%	Good-Moderate	Mid Adult	Indeterminate	Some soft tissue ossification on rib ends (notably the first ribs). Osteophytic lipping on vertebral bodies, possible vertebral body collapse in lumbar vertebrae. Fusion of right femur to acetabulum (femoral neck trauma resulting in ankylosis of the joint?)
775	70%	Good-Moderate	Juvenile	N/A	Copper staining on skull and vertebral bodies.
780	35%	Good-Moderate	Mid Adult	Indeterminate	No skull and very little of the upper body extant.
784	80%	Good-Moderate	Young Adult	Male?	Copper staining on skull. A-M tooth loss and socket resorption possible in the area of the mandibular incisors.
788	40%	Moderate	Mid Adult?	Indeterminate	No skull extant.
789	70%	Good-Moderate	Mid-Old Adult	Female?	A-M tooth loss and socket resorption on mandible. Osteophytic lipping and porosity on vertebral bodies.
792	65%	Good-Moderate	Infant	N/A	Copper staining on right radius.
794	25%	Moderate	Adult?	Indeterminate	Osteophytic lipping and fusion and porosity on vertebrae. A-M tooth loss and socket resorption on mandible.
798	90%	Good-	Mid Adult	Female	Many elements (notably the vertebrae) coated in mortar. A-M tooth

		Moderate			loss and socket resorption. Copper staining on left pubis.
802	75%	Moderate	Infant	N/A	Copper staining on skull
805	80%	Good-Moderate	Mid Adult	Female?	Traces of osteophytic lipping and Schmorl's nodes on vertebral body.
815	80%	Good-Moderate	Adult	Male?	Osteophytic lipping and porosity on vertebral bodies
818	80%	Good-Moderate	Old Adult	Indeterminate	A-M tooth loss and socket resorption. Possible abscess in mandible. Grassile individual.
822	60%	Moderate-Poor	Adult?	Indeterminate	Copper staining on cervical vertebrae.
825	55%	Good-Moderate	Mid-Old Adult	Female?	Copper staining on skull. A-M tooth loss and socket resorption. Porosity and joint malformation on distal end of right radius. Post-mortem dissection Midshaft femur and midshaft right tibia. Disarticulated bone in context [551] associated with this context.
826	65%	Good-Moderate	Old Adult?	Intermediate	Post-Mortem dissection: craniotomy, sternum and right humerus proximal shaft. Porosity on vertebral bodies and possible OA vertebral articular facets (esp. Thoracic). Disarticulated bone in context [551] associated with this context.
828	75%	Moderate	Young Adult	Indeterminate	OA- articular facets of vertebrae. Schmorl's nodes. Copper staining on skull and mandible. Caries and possible A-M tooth loss.
830	75%	Moderate	Old Adult	Indeterminate	Copper staining on right scapula, MT5, phalanges, left clavicle and right calcaneus. Slight osteophytic lipping on the acromion of the left scapula. Potential OA (osteophytic lipping and porosity) at right elbow and on distal ends of left and right ulnae and radii, left clavicle ends, vertebral articular facets and some tarsal elements. Osteophytic lipping around vertebral body margins and porosity on the bodies.

					Carpals and Metacarpal fusion of left hand.(seronegative spondyloarthropathy)
834	20%	Good	Adolescent	Female?	Copper staining on skull. Caries. Schmorl's nodes.
837	35%	Good-Moderate	Adult?	Unknown	Copper staining on sternum. Schmorl's nodes? OA (with eburnation) in right wrist
842	90%	Good-Moderate	Young Adult	Male	Caries. Porosity on a few rib heads
846	15%	Good-Moderate	Adult?	Unknown	Copper staining on left humerus. Possible OA in vertebral articular facets. Schmorl's nodes? Porosity on rib head articular facets.
851	90%	Good-Moderate	Adult	Male?	Osteophytic lipping and porosity on vertebral bodies.
853	95%	Good	Mid Adult	Male	A-M tooth loss and socket resorption in mandible. Abscess in mandible. Traces of copper staining.
855	90%	Good-Moderate	Old Adult	Male	Possible A-M tooth loss and socket resorption. Slight osteophytic lipping around the margins of vertebral bodies. Possible healed fractured rib. NB - Disartic bone found in this context (see disartic index).
857	80%	Good-Moderate	Juvenile	N/A	Copper staining on skull, vertebrae, pelvis, metacarpals and femur. (NB - See disartic index).
869	15%	Moderate	Adult?	Unknown	None visible
873	60%	Moderate-Poor	Adult	Unknown	Severe infection (osteomyelitis) left and right femora and possibly right humerus
877	10%	Good-	Adult	Indeterminate	Post-mortem dissection: distal end of right femur. OA - right MT1.

		Moderate			
881	10%	Good-Moderate	Adult?	Unknown	None visible
883	85%	Moderate	Juvenile	N/A	None visible
884	8%	Good	Adult?	Unknown	Post-mortem dissection: Distal end of left femur.
885	65%	Moderate	Juvenile	N/A	None visible
890	35%	Good-Moderate	Young Adult?	Female?	Sacralisation of L5. No skull extant.
897	40%	Moderate	Mid Adult	Indeterminate	Osteophytic lipping around joint margin of patella. Upper body missing.
900	55%	Good-Moderate	Mid Adult	Female?	Possible lamellar bone on left tibia?
906	60%	Good	Young Adult	Indeterminate	Copper staining on mandible. Caries. Possible osteophytic lipping on vertebral body margins.
912	10%	Moderate	Adult?	Unknown	None visible.
918	5%	Moderate-Poor	Unknown	Unknown	None visible.
920	65%	Moderate	Adult	Female?	A-M tooth loss and socket resorption. Fusion of thoracic vertebrae. Traces of osteophytic lipping and Schmorl's nodes on vertebral bodies?
923	15%	Good-Moderate	Adult	Indeterminate	None visible.

926	55%	Moderate	Mid Adult	Female?	Copper staining on rib heads. OA on vertebral articular facets. Possible porosity and osteophytic lipping on vertebral body. No skull extant.
929	20%	Good-Moderate	Young Adult	Indeterminate	Copper staining on pelvis. Very petite individual.
931	80%	Moderate	Young-Mid Adult	Female?	A-M tooth loss and socket resorption. Caries. Osteophytic lipping on margins of vertebrae and Schmorl's nodes. Copper staining on scapula fragment.
933	15%	Moderate	Adult?	Indeterminate	None visible.
945	55%	Good-Moderate	Young Adult	Indeterminate	Slight porosity on rib heads?
948	15%	Moderate	Mid Adult?	Unknown	None visible.
950	70%	Moderate	Infant	N/A	None visible.
954	25%	Moderate	Adult	Indeterminate	None visible.
958	15%	Moderate	Adult?	Unknown	None visible
963	80%	Good-Moderate	Young Adult	Male?	Manubrium fused to sternal body. Osteophytic lipping on extant proximal and distal ends of left and right humerii, ulnae and radii. Osteophytic lipping on margins of vertebral bodies (notably lumbar).
966	55%	Good	Juvenile	N/A	None visible.
967	10%	Moderate	Adult?	Unknown	None visible
981	70%	Moderate	Juvenile	N/A	Copper staining on skull.

984	70%	Good	Young Adult	Female	Copper staining on left tibia and vertebrae. Schmorl's nodes.
990	90%	Good-Moderate	Mid Adult	Male	Caries. Osteophytic lipping around joint margin of right scapula acromion, vertebral body margins and occasional rib heads. Some soft tissue ossification. Copper staining on right scapula and right tibia.
994	40%	Good-Moderate	Juvenile	N/A	Possible abscess on mandible
997	25%	Good	Adult	Indeterminate	A-M tooth loss and socket resorption
998	85%	Good-Moderate	Mid-Old Adult	Male?	Osteophytic lipping around the margin of sacral centrum. Porosity and possible Schmorl's nodes
1004	75%	Good-Moderate	Juvenile	N/A	Copper staining on skull.
1008	80%	Good-Moderate	Juvenile	N/A	None visible.
1012	90%	Good-Moderate	Old Adult	Male	A-M tooth loss and socket resorption. Right calcaneus and talus possible OA/ joint deformation. Osteophytic lipping, porosity and Schmorl's nodes on vertebral bodies. Porosity and joint deformation on acromions of left and right scapulae. Healed fracture left fibula.
1022	10%	Good-Moderate	Adult?	Indeterminate	None visible.
1026	90%	Good-Moderate	Mid Adult	Male?	Copper staining on skull. Slight traces of cribra orbitalia in right and left orbits. Right first rib soft tissue ossification. Schmorl's nodes, porosity and osteophytic lipping on vertebral bodies (esp cervical vertebrae).
1029	85%	Good-Moderate	Mid Adult	Indeterminate	Copper staining on skull and mandible. Caries? Possible cribra orbitalia in left orbit. Schmorl's nodes.

1033	65%	Moderate	Infant-Juvenile	N/A	None visible.
1036	15%	Good-Moderate	Adult?	Indeterminate	Lower legs and feet only.
1039	10%	Moderate	Adult?	Indeterminate	Lower legs and feet only.
1042	80%	Moderate	Young Adult	Female	Caries. Lamellar bone on left tibia. Osteophytic lipping and porosity on vertebral bodies.
1045	20%	Good-Moderate	Adult	Unknown	None visible.
1054	80%	Good-Moderate	Juvenile	N/A	None visible
1055	20%	Good-Moderate	Adult?	Indeterminate	None visible.
1061	15%	Good-Moderate	Mid-Old Adult?	Female	Osteophytic lipping, porosity and Schmorl's nodes on vertebral bodies. A-M tooth loss and socket resorption.
1065	20%	Good-Moderate	Mid-Old Adult?	Indeterminate	Copper staining on skull. Osteophytic lipping on vertebral bodies. Ossified soft tissue on rib heads.
1067	70%	Good-Moderate	Young Adult	Female	Copper staining on skull. Petite/grassile individual. Slight osteophytic lipping on thoracic vertebral body margins. Ribs - corset deformation? NB- Disartic bone found with this context and context [537] (see disartic index).
1071	60%	Moderate	Young Adult	Indeterminate	Copper staining on left radius. Schmorl's nodes.
1073	75%	Moderate	Mid Adult	Female	A-M tooth loss and socket resorption. Porosity and osteophytic lipping

					on rib heads. Osteophytic lipping and Schmorl's nodes and osteophytic lipping on vertebral bodies. Osteophytic lipping on left scapula acromion. OA on MT1.
1075	65%	Moderate	Mid-Old Adult	Male?	Bone deposition/lesion on right femoral head. Osteophytic lipping (to the point of fusion on thoracic vertebrae) and Schmorl's nodes on vertebrae. Osteophytic lipping on rib head facet margins. No skull extant.
1077	55%	Moderate	Mid Adult	Male	Osteophytic lippig around margins of vertebral bodies.
1078	10%	Moderate-Poor	Juvenile	N/A	Left and right legs only. NB - Disartic elements were present in this context (See disartic index)
1081	80%	Good	Juvenile	N/A	None visible
1082	70%	Good-Moderate	Mid Adult	Male	Copper staining on skull and right pelvis (acetabulum). Caries.
1088	50%	Good-Moderate	Young Adult	Female?	Copper staining on rib head and skull. NB disartic bone found within this context (see disartic index)
1089	25%	Good-Moderate	Young Adult?	Female?	Partial skeleton only. NB - Disartic bone found with this context (see disartic index).
1090	55%	Moderate	Neonate	N/A	None visible.
1094	60%	Moderate	Mid-Old Adult	Male	Slight traces of copper staining on phalanges. A-M tooth loss? Osteoporosis? Possible OA on vertebral articular facets. NB - See disartic index.
1096	45%	Good-Moderate	Juvenile	N/A	None visible.

1099	90%	Good	Young-Mid Adult	Female?	Copper staining on skull and right radius, left radius and carpals. A-M tooth loss and socket resorption. Unfused acromion left scapula
1102	25%	Good	Young Adult	Male?	Disartic bone found in this context (see disartic index).
1105	55%	Good-Moderate	Old Adult?	Female?	Joint degradation (including porosity and osteophytosis) seen on acromions of left and right scapulae, sternal and acromial ends of left and right clavicaulae and distal ends of right radius and right ulna. Osteophytic lipping and slight porosity on body margins .
1109	5%	Moderate	Unknown	Unknown	Feet only. Slight osteophytic lipping and porosity on left and right proximal MT1 distal ends. NB - Disartic bone found in this context (the elements of a left foot-see disartic index for details).
1113	85%	Good-Moderate	Young Adult	Indeterminate	None visible
1116	60%	Good	Young Adult	Male	No skull extant.
1119	70%	Good-Moderate	Young-Mid Adult	Indeterminate	Copper staining on right pelvis, right scapula, ribs, right ulna and right femur. Fusion of sacrum to right pelvis auricular surface. Healed fracture distal end of right ulna. Porosity and malformation of radial tuberosity on right radius. Severe OA - right hand (esp. metacarpals). Osteophytic lipping, porosity, Schmorl's nodes on vertebral bodies and fusion of cervical vertebrae articular facets.
1124	85%	Good-Moderate	Young Adult	Indeterminate	Copper staining on right humerus. Osteophytic lipping and porosity on vertebral bodies (especially cervical).
1126	20%	Moderate	Adult?	Indeterminate	Osteophytic lipping around vertebral body margins. Possible Schmorl's nodes.
1128	5%	Good-Moderate	Young Adult	Male?	None visible

1129	75%	Good	Neonate	N/A	None visible.
1133	55%	Good-Moderate	Mid Adult	Female?	Copper staining on cervical vertebrae. A-M tooth loss and socket resorption. NB Disartic bone found within this context (see disartic index).
1134	80%	Good	Juvenile	N/A	Copper staining on skull.
1135	60%	Moderate	Old Adult?	Male?	Copper staining on mandible. A-M tooth loss and socket resorption. Eburnation on articular facets of C1. Osteophytic lipping on body margins and articular facets of vertebrae and porosity on vertebral bodies.
1139	85%	Good-Moderate	Young-Mid Adult	Male?	Possible Schmorl's nodes. Caries. Possible maxillary abscesses.
1144	80%	Good	Mid Adult	Female	Caries. A-M tooth loss and socket resorption. Maxillary abscess. Schmorl's nodes.
1147	60%	Moderate	Young Adult?	Indeterminate	Schmorl's nodes.
1149	55%	Good-Moderate	Mid Adult	Female?	Copper staining on skull (notably in left orbit). Osteophytic lipping and porosity on vertebral bodies. Fusion of lumbar vertebrae.
1162	65%	Moderate	Infant	N/A	Copper staining on mandible.
1163	75%	Good-Moderate	Infant	N/A	None visible.
1169	45%	Moderate-Poor	Old Adult	Indeterminate	Copper staining on skull. Soft tissue ossification on ulna head. Osteophytic lipping on margins of vertebral bodies and porosity on bodies.
1180	90%	Good-	Old Adult	Male?	Copper staining on skull. Edentulous maxilla and mandible. Slight

		Moderate			osteophytic activity and porosity on rib heads. Schmorl's nodes, osteophytic lipping and porosity on vertebral bodies.
1187	25%	Moderate-Poor	Mid-Old Adult	Indeterminate	Thickening of frontal bone cortex?
1193	45%	Good-Moderate	Mid Adult	Female?	A-M tooth loss and socket resorption on mandible. Porosity and joint deformation on vertebral articular facets and Schmorl's nodes and slight osteophytic lipping on vertebral bodies.
1196	40%	Moderate	Mid Adult	Indeterminate	None visible
1202	10%	Moderate	Adult?	Unknown	None visible
1205	10%	Good-Moderate	Juvenile	N/A	None visible
1207	70%	Good-Moderate	Mid-Old Adult	Female?	Porosity on vertebral bodies. Disartic bone found in this fill (see disartic index)
1211	70%	Good-Moderate	Mid Adult	Indeterminate	Severe infection in left ulna and tibia (osteomyelitis?) and possible periostitis on distal part of left femur shaft. Possible eburnation on epicondyles of left humerus. Slight osteophytic lipping on vertebral body margins and dens facet of atlas vertebra. Incongruity of size between calcanei (check with other skeletons in stack). NB - Disartic bone found in this context (see disartic index)
1215	85%	Good	Young Adult	Female	Caries. Porosity, osteophytic lipping and Schmorl's nodes on vertebral bodies. Severe hip dislocation/ fracture (femoral head and acetabulum). Petite individual?
1218	80%	Good	Juvenile	N/A	Caries?
1236	75%	Good-	Infant	N/A	NB - Disartic bone found in this context (see disartic index).

		Moderate			
1239	5%	Good-Moderate	Adult?	Indeterminate	Left scapula, left clavicle and ribs only
1242	25%	Good-Moderate	Mid Adult?	Female?	NB - Disartic bone found within this context (see disartic index)
1243	35%	Moderate	Mid Adult?	Male?	NB - Disartic bone found within this context (see [1242] in disartic index). Osteophytic lipping on vertebral body margins. Traces of lamellar bone on radius and ulna
1059 A	70%	Moderate	Old Adult	Male?	Osteophytic lipping and porosity on vertebrae. OA on cervical vertebral articular facets. A-M tooth loss and socket resorption.
1059 B	10%	Moderate	Juvenile	N/A	None visible
1165 A	45%	Good-Moderate	Mid Adult?	Intermediate	NB - A skull was found in [1165] which has not been attributed to either skeleton A or B as yet due to its similarities to both. An attribution may be possible during the analysis phase of the osteological research (see disartic index). Osteophytic lipping on the margins of vertebrae and porosity on vertebral bodies.
1165 B	45%	Moderate	Adult	Male?	Traces of OA on metatarsals, metacarpals and carpals. Porosity and slight joint deformation on distal ends of left radius and ulna. Severe porosity and osteophytic lipping on vertebral bodies and possible OA on vertebral articular facets. NB - A skull was found in [1165] which has not been attributed to either skeleton A or B as yet due to its similarities to both. An attribution may be possible during the analysis phase of the osteological research (see disartic index).
229 (A & B)	80% (x2)	Good-Moderate (x2)	Neonate (x2)	N/A	Copper staining on skull, humerii, tibiae and a radius. Two individuals (not possible to separate).

281 A	65%	Moderate	Young-Mid Adult	Male?	Caries. Severe rickets - right and left fibula and tibia, left and right humerus and ulna. Severe gout (foot elements). Remodelling of acetabulae on pelvis?
281 B	75%	Moderate	Infant	N/A	Copper staining on skull.
383 A	60%	Good-Moderate	Mid Adult	Male?	A-M tooth loss and socket resorption. Osteophytic lipping on margins of vertebral bodies (esp. Lumbar). Right limbs are not extant. A great deal of disartic (MNI 5) from this context
383 B	65%	Good-Moderate	Mid Adult	Female?	Healed rib fractures. Traces of osteophytic lipping on (esp cervical) vertebrae. A-M tooth loss and socket resorption. Right limbs are not extant. A great deal of disartic (MNI 5) from this context
445 A	85%	Good-Moderate	Infant	N/A	None visible
445 B	65%	Good-Moderate	Neonate	N/A	None visible
445 C	35%	Good	Infant	N/A	None visible
682A	5%	Moderate	Adult	Unknown	Severely infected tibia (osteomyelitis possibly as a result of fracture - the profile of the bone seems to indicate this). Fibula also infected. Left leg only present.
682B	25%	Good-Moderate	Infant	N/A	None visible. NB - Disartic bone also found within this context (see disartic index).
78 A	45%	Good	Mid Adult	Female?	Copper staining on ribs. No skull extant. NB - Disartic bone found in this context (see disartic index). Slight osteophytic lipping on margin of body. Osteomyelitis evident on left tibia. Severe rib defomation (corset deformation?)

78 B	30%	Good- Moderate	Mid Adult?	Female?	Copper staining on pelvis. No skull extant. OA on vertebral and sacral articular facets. NB - Disartic bone found in this context (see disartic index).
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Skeletal catalogue

Contexts containing disarticulated human bone

Context no.	Skeletal Element	No. of fragments	Condition	MNI for each context	Sex	Age	Pathology/Comments
24	Mandible (x 2)	5	Good-Moderate	3	?	Old Adult? x 1 & Young Adult ? x 1	Some A-M tooth loss and socket resorption on potential old adult mandible.
24	Skull (fragments)	58	Moderate	3	?	?	Copper staining
24	Radius (shaft)	1	Poor	3	?	?	None visible.
24	Fibulae (shaft fragments)	3	Moderate-Poor	3	?	?	None visible.
24	Pelvis (ilium fragments)	2	Poor	3	?	?	None visible.
24	Dentition (canine x 1 & molars x 2)	3	Good-Moderate	3	?	?	None visible.
24	Rib (shaft fragment)	1	Moderate-Poor	3	?	?	None visible.
24	Rib (left)	1	Moderate	3	?	?	None visible.
24	Humerus (distal end)	1	Good-Moderate	3	?	Neonate	Copper staining
24	Foot (Metatarsal shaft)	1	Moderate-Poor	3	?	?	None visible.
24	Clavicle (shaft)	1	Moderate-Poor	3	?	?	None visible.
24	Vertebra (body fragment)	1	Poor	3	?	?	None visible.
24	Vertebra (thoracic)	1	Good	3	?	?	None visible.

24	Vertebra (cervical)	1	Good	3	?	?	Severe osteophytosis around body. Possible DISH.
26	Clavicle (left)	1	Good	12	?	Adult	Slight osteophytic lipping and porosity around margins of coastal tuberosity.
26	Rib (shafts)	3	Moderate-Poor	12	?	?	N/A
26	Pelvis (ischium and pubis right)	1	Moderate	12	?	?	N/A
26	Pelvis (ischium left)	1	Moderate	12	?	?	N/A
26	Foot (1st proximal phalanx)	1	Good	12	?	?	N/A
26	Tibia (proximal shaft and head unsided)	1	Poor	12	?	Adult?	N/A
26	Tibia (shaft fragments)	4	Poor	12	?	?	Possible lamellar bone on one fragment
26	Humerus (mid-distal shaft and epicondyles right)	1	Good	12	?	Adult?	Grassile
26	Humerus (proximal shaft and head right)	1	Good	12	?	Adult?	N/A
26	Unidentifiable fragment	1	Poor	12	?	?	N/A
26	Vertebrae (thoracic body)	1	Moderate-Poor	12	?	?	N/A

26	Vertebrae (lower thoracic)	1	Good-Moderate	12	?	Adult	Schmorl's nodes on superior and inferior body surfaces
26	Vertebrae (upper thoracic)	1	Good-Moderate	12	?	Adult	Osteophytic lipping middle inferior body margin. Soft tissue ossification within neural arch.
26	Humerus (distal shaft)	1	Poor	12	?	?	N/A
26	Skull (frontal fragment)	1	Moderate	12	?	?	Possible cribra orbitalia
26	Skull (zygomatic right)	1	Good-Moderate	12	?	?	N/A
26	Skull (parietal fragment)	1	Moderate-Poor	12	?	?	N/A
26	Skull (maxilla fragment)	1	Poor	12	?	?	N/A
26	Skull (small fragments)	9	Poor	12	?	?	N/A
26	Skull (temporal right)	1	Moderate-Poor	12	?	?	N/A
26	Ulna (proximal head shaft and head left)	1	Good-Moderate	12	?	?	Soft tissue ossification on olecranon
26	Fibula (proximal shaft)	1	Poor	12	?	?	N/A
26	Skull (zygomatic right)	1	Good-Moderate	12	?	?	N/A
26	Skull (parietal fragment)	1	Poor	12	?	?	N/A
26	Scapula (glenoid fossa right)	1	Moderate	12	?	?	N/A

26	Scapula (Acromial spine left)	1	Poor	12	?	?	N/A
26	Scapula (right)	1	Good-Moderate	12	?	Juvenile	N/A
26	Scapula (fragments)	2	Poor	12	?	?	N/A
26	Pelvis (iliac blade)	1	Poor	12	?	Juvenile	N/A
26	Tibia (shaft and proximal head left)	1	Good-Moderate	12	?	Juvenile	N/A
26	Tibia (shaft and proximal head right)	1	Good-Moderate	12	?	Juvenile	N/A
26	Tibia (shaft)	1	Moderate-Poor	12	?	Juvenile	N/A
26	Tibia (shaft)	1	Moderate-Poor	12	?	Juvenile	N/A
26	Tibia	1	Good	12	?	Neonate	N/A
26	Tibia	1	Good	12	?	Neonate	N/A
26	Hand (Metacarpal)	1	Good-Moderate	12	?	Juvenile	N/A
26	Unidentifiable fragment	1	Poor	12	?	?	N/A
26	Femur (Left)	2	Good-Moderate	12	?	Adult	Traces of lamellar bone on shaft.
26	Tibia (mid-distal shaft and distal articular surface)	1	Poor	12	?	?	N/A
26	Humerus (proximal shaft and head left)	1	Moderate-Poor	12	?	?	N/A

26	Humerus (proximal head right)	1	Poor	12	?	?	N/A
26	Scapula (left)	1	Good-Moderate	12	?	Juvenile?	N/A
26	Ribs (left x4)	4	Good	12	?	?	3 of the rib heads featured porosity and osteophytic lipping around joint margin and slight soft tissue ossification on sternal end of 1 rib.
26	Rib (right)	1	Good	12	?	?	Slight porosity on articular surface of rib head.
26	Ribs (shafts)	2	Moderate-Poor	12	?	?	Slight soft tissue ossification on sternal end of one fragment.
26	Patella (left)	1	Good	12	?	?	N/A
26	Pelvis (pubis left)	1	Good-Moderate	12	Female?	Mid Adult?	N/A
26	Pelvis (pubis right)	1	Good-Moderate	12	Female?	Mid Adult?	N/A
26	Vertebrae (thoracic body)	1	Moderate-Poor	12	?	?	Slight osteophytic lipping on right inferior body margin
26	Vertebrae (T12)	1	Good	12	?	Adult	Osteophytic lipping superior body margin. OA left and right costal facets. Soft tissue ossification on superior tubercles.

26	Unidentifiable fragment	2	Poor	12	?	?	N/A
26	Pelvis (iliac blade)	2	Poor	12	?	?	N/A
26	Hand (Middle phalanges)	2	Good	12	?	?	N/A
26	Hand (proximal phalanx)	1	Good	12	?	?	N/A
26	Hand (Right MC1)	1	Good	12	?	?	Severe osteophytic lipping and deposits on margins and proximal articular surface.
26	Hand (Left lunate)	1	Good	12	?	?	N/A
26	Hand (Left hamate)	1	Good	12	?	?	N/A
26	Hand (Right capitate)	1	Good	12	?	?	N/A
26	Hand (Left capitate)	1	Moderate	12	?	?	N/A
26	Hand (Left scaphoid)	1	Good	12	?	?	N/A
26	Humerus (distal epicondyles right)	1	Moderate	12	?	Adult?	Periostitis
26	Ribs (shafts)	3	Moderate-Poor	12	?	?	N/A
26	Rib (right)	1	Moderate	12	?	?	N/A
26	Vertebrae (lumbar)	1	Good-Moderate	12	?	Adult?	N/A
26	Scapula (left)	1	Moderate-Poor	12	?	Juvenile	N/A

26	Unidentifiable fragment	1	Poor	12	?	?	N/A
26	Scapula (fragments)	2	Poor	12	?	?	N/A
26	Ulna (proximal shaft and head left)	1	Moderate	12	?	?	N/A
26	Skull (parietal right)	1	Good-Moderate	12	?	Juvenile	N/A
26	Clavicle (right)	1	Good	12	?	?	Porosity and osteophytic activity on acromial end.
26	Clavicle (Sternal end and shaft left)	1	Moderate	12	?	?	Grassile
26	Sacrum (fragment)	1	Poor	12	?	?	N/A
26	Tibia (distal shafts and ends left)	2	Moderate-Poor	12	?	?	N/A
26	Tibia (distal shaft and end)	1	Moderate-Poor	12	?	?	N/A
26	Tibia (proximal head fragment)	1	Poor	12	?	?	N/A
26	Long bone (shaft fragments)	2	Poor	12	?	?	N/A
26	Femur (Shaft)	1	Moderate-Poor	12	?	?	N/A
26	Humerus (proximal shaft and head right)	1	Moderate-Poor	12	?	?	N/A
26	Hand (MCIII right)	1	Good-Moderate	12	?	?	N/A
26	Femur (right)	2	Good-Moderate	12	?	Juvenile	N/A

26	Femur (shaft and proximal head left)	1	Moderate	12	?	Juvenile	N/A
26	Tibia (left)	1	Moderate	12	?	Juvenile	Possible rickets
26	Tibia (shaft)	1	Moderate-Poor	12	?	Juvenile	N/A
26	Tibia (shaft)	1	Moderate	12	?	Infant	N/A
26	Tibia (shaft right)	1	Good	12	?	Neonate	N/A
26	Calcaneus (left)	1	Moderate	12	?	Juvenile	N/A
26	Talus (left)	1	Good-Moderate	12	?	Adult?	N/A
26	Pelvis (mandible)	1	Moderate-Poor	12	?	Old Adult?	Partially edentulous
26	Hand (metacarpal shaft)	1	Poor	12	?	?	N/A
26	Foot (metatarsal)	1	Good-Moderate	12	?	?	N/A
26	Ribs (shafts)	3	Poor	12	?	?	N/A
26	Scapula (fragment)	1	Poor	12	?	?	N/A
26	Pelvis (ischium)	1	Poor	12	?	?	N/A
26	Pelvis (ilium)	2	Moderate-Poor	12	?	Infant	N/A
26	Ulna (proximal-mid shaft and head left)	1	Moderate-Poor	12	?	?	N/A
26	Ribs (right)	1	Moderate	12	?	?	N/A

26	Femur (right)	1	Good-Moderate	12	?	Juvenile	N/A
26	Humerus (shaft)	1	Moderate	12	?	?	N/A
26	Humerus (mid- distal shaft and epicondyles left)	1	Moderate	12	?	?	N/A
26	Unidentifiable fragment	2	Poor	12	?	?	N/A
26	Humerus (shaft and distal epicondyles)	1	Moderate-Poor	12	?	Juvenile	N/A
26	Radius (left shaft and distal end)	1	Good-Moderate	12	?	Adult?	N/A
26	Vertebrae (thoracic neural arch)	1	Moderate	12	?	Juvenile	N/A
26	Vertebrae (Atlas fragments)	2	Moderate	12	?	?	N/A
26	Clavicle (shaft)	1	Moderate-Poor	12	?	?	N/A
26	Clavicle (acromial end and shaft right)	1	Moderate-Poor	12	?	?	N/A
26	Clavicle (right)	1	Moderate	12	?	?	Osteophytic deposits and porosity on acromial end
26	Sacrum (x3)	3	Moderate	12	?	Adult	N/A
26	Skull (Cranium without facial bones)	1	Good-Moderate	12	Female	Young-Mid Adult	N/A
26	Skull (frontal)	1	Moderate	12	?	Juvenile	N/A

26	Skull (frontal)	1	Moderate-Poor	12	?	Juvenile	Cribra orbitalia
26	Skull (frontal fragments)	2	Poor	12	?	Juvenile	N/A
26	Skull (occipital fragments)	3	Moderate-Poor	12	?	Juvenile	N/A
26	Skull (parietal fragment)	1	Poor	12	?	?	N/A
26	Skull (zygomatic left)	1	Moderate	12	?	?	N/A
26	Skull (maxilla fragments)	2	Moderate-Poor	12	?	?	N/A
26	Tooth (fragment)	1	Poor	12	?	?	N/A
26	Mandible (left)	1	Moderate-Poor	12	?	Infant	N/A
26	Skull (Cranium without facial bones)	6	Moderate	12	Female?	Young-Mid Adult	N/A
26	Skull (parietal)	2	Moderate-Poor	12	?	?	N/A
26	Skull (frontal fragment)	1	Moderate-Poor	12	?	?	N/A
26	Skull (maxilla fragment right)	1	Moderate-Poor	12	?	?	Enamel hypoplasia. Possible periodontal disease
26	Sternum (manubrium)	1	Moderate	12	?	?	N/A
26	Humerus (shafts)	2	Moderate	12	?	?	N/A
26	Tibia (shaft fragment)	1	Moderate-Poor	12	?	?	N/A
26	Femur (shaft)	1	Moderate-Poor	12	?	?	N/A

26	Tibia (shaft)	1	Moderate-Poor	12	?	?	N/A
26	Humerus (shaft)	1	Poor	12	?	?	N/A
26	Pelvis (right pubis)	1	Good	12	?	Infant	N/A
26	Rib (shaft)	1	Poor	12	?	?	N/A
26	Clavicle (shaft right)	1	Moderate-Poor	12	?	Juvenile	N/A
26	Foot (metatarsals x2)	2	Moderate-Poor	12	?	Juvenile	N/A
26	Foot (proximal phalangesx2)	2	Good	12	?	Juvenile	N/A
26	Ribs (shaft fragments)	1	Poor	12	?	?	N/A
26	Skull	25	Moderate	12	?	Juvenile	N/A
26	Skull	30	Moderate	12	Female?	Adult	N/A
26	Ribs (shaft fragments)	2	Poor	12	?	?	N/A
26	Humerus (left)	1	Good	12	?	Adult?	N/A
26	Pelvis (ilium and ischium)	1	Moderate-Poor	12	?	Mid Adult?	N/A
26	Tibia (left)	1	Good	12	?	Adult?	N/A
26	Tibia (mid-distal shaft and distal articular surface left)	1	Moderate-Poor	12	?	Adult?	N/A
26	Tibia (proximal shaft and head left)	1	Moderate	12	?	Adult?	N/A

26	Tibia (left distal end and shaft)	1	Moderate	12	?	Adult?	N/A
26	Femur (mid shaft)	1	Moderate-Poor	12	?	?	N/A
26	Humerus (right distal epicondyles and shaft)	1	Moderate	12	?	Adult?	Possible healed lamellar bone on dorsal surface of shaft
26	Radius (left)	1	Good-Moderate	12	?	Adult?	N/A
26	Femur (proximal head)	1	Moderate-Poor	12	?	?	N/A
26	Long bone (shaft fragments)	14	Poor	12	?	?	N/A
26	Mandible (left ramus)	1	Poor	12	?	?	N/A
26	Ribs (fragments)	3	Poor	12	?	?	N/A
26	Rib (left)	1	Good	12	?	Juvenile	N/A
26	Unidentifiable fragments	24	Poor	12	?	?	N/A
26	Foot (right calcaneus)	1	Poor	12	?	?	N/A
26	Femur (head fragment)	1	Poor	12	?	?	N/A
26	Scapula (blade fragment)	1	Poor	12	?	?	N/A
26	Pelvis (pubis fragment)	1	Poor	12	?	?	N/A
26	Sacrum (fragments)	2	Poor	12	?	?	N/A
26	Skull (fragment)	1	Poor	12	?	?	N/A

26	Metatarsals (III and IV and V)	3	Moderate-Poor	12	?	Adult?	N/A
26	Hand (MC I and distal head and shaft of MC II)	2	Moderate	12	?	Adult?	N/A
26	Foot (2nd proximal phalanx?)	1	Good	12	?	?	N/A
26	Tooth (pre-molar)	1	Good	12	?	?	Trace of calculus
26	Humerii (left and right mid-distal shaft and ends)	2	Moderate	12	?	Juvenile	N/A
26	Tibiae (left and right)	2	Good-Moderate	12	?	Juvenile	N/A
26	Femora (1x left and 1x right)	3	Good-Moderate	12	?	Juvenile	N/A
26	Clavicle (shaft fragment)	1	Poor	12	?	?	N/A
26	Vertebra (thoracic body)	1	Moderate	12	?	?	Schmorl's nodes on inferior body surface.
26	Skull (frontal and parietals)	1	Moderate	12	Male?	Mid-Old Adult	Scratches on cranium (some are definitely recent but others may be the result of peri- or post-mortem activity)
26	Pelvis (ilium fragments)	3	Poor	12	?	?	N/A
26	Skull (parietal, maxilla, zygomatic, frontal fragments)	19	Moderate-Poor	12	?	?	N/A
26	Pelvis (ischium right)	1	Moderate	12	?	Adult	N/A

26	Foot (MT II, III and IV)	3	Moderate	12	?	?	N/A
26	Hand (MC II)	1	Good	12	?	?	N/A
26	Ribs (shafts)	6	Poor	12	?	?	N/A
26	Ribs (1x left 1x right)	2	Moderate	12	?	?	Porosity and osteophytic lipping at rib heads.
26	Scapula (right)	1	Moderate	12	?	Juvenile	N/A
26	Vertebra (Atlas, T1, T2 and mid thoracic body and neural arch)	5	Good-Moderate	12	?	?	Mid thoracic vertebra- Schmorl's nodes superior and inferior body surfaces.
26	Femur (mid shaft)	1	Moderate-Poor	12	?	Adult?	N/A
26	Tibiae (shafts)	2	Moderate-Poor	12	?	?	N/A
26	Long bone (shaft fragments)	2	Poor	12	?	?	N/A
26	Humerus (mid-distal shaft and epicondyles unsided)	1	Moderate-Poor	12	?	Juvenile	N/A
26	Radius (distal shaft and end right)	1	Moderate	12	?	?	N/A
26	Femur (Left)	1	Good-Moderate	12	?	Juvenile	Some twisting of the profile. Rickets?
26	Ulna (proximal head and shaft right)	1	Moderate	12	?	Juvenile	N/A

26	Unidentifiable fragments	6	Poor	12	?	?	N/A
26	Hand Phalanges (3x proximal phalanges)	3	Good-Moderate	12	?	Juvenile	N/A
26	Foot (Metatarsal)	1	Good-Moderate	12	?	Juvenile	N/A
26	Femur (mid-distal shaft and distal condyles)	1	Moderate-Poor	12	?	Adult?	N/A
26	Femur (shaft)	1	Moderate-Poor	12	?	Adult?	N/A
26	Femur (proximal shaft right)	1	Moderate-Poor	12	?	Adult?	N/A
26	Femur (proximal head left)	1	Moderate	12	?	Adult?	N/A
26	Femur (condyle)	1	Moderate-Poor	12	?	?	N/A
26	Humerus (shaft and distal epicondyles right)	1	Moderate	12	?	Adult?	N/A
26	Long bone (shaft fragments)	2	Poor	12	?	?	N/A
26	Pelvis (ilium right)	1	Moderate-Poor	12	?	Adult	N/A
26	Pelvis (ischium right)	1	Moderate	12	?	?	N/A
26	Vertebrae (thoracic)	1	Good-Moderate	12	?	?	Schmorl's nodes inferior body surface
26	Vertebrae (lumbar)	1	Good-Moderate	12	?	?	N/A
26	Scapula (fragments)	2	Moderate-Poor	12	?	?	N/A

26	Pelvis (ilium and ischium fragments)	3	Poor	12	?	?	N/A
26	Skull (parietal fragment)	1	Moderate	12	?	?	N/A
26	Femur (2x distal condyles)	2	Moderate-Poor	12	?	?	N/A
26	Mandible (ramus fragment)	1	Poor	12	?	?	N/A
26	Ribs (shafts)	4	Moderate-Poor	12	?	?	N/A
26	Ribs (3x left)	3	Moderate	12	?	?	1x rib head slight osteophytic activity around articular margin
26	Ribs (1x right)	2	Moderate-Poor	12	?	?	Severe osteophytic lipping/soft tissue ossification around rib head.
26	Long bone (shaft fragments)	17	Poor	12	?	?	N/A
26	Femur (fragments)	2	Poor	12	?	?	N/A
26	Hand phalanx (fragments)	2	Moderate-Poor	12	?	?	N/A
26	Ulna (shaft)	1	Moderate	12	?	Juvenile	N/A
26	Foot (MT I)	1	Good	12	?	Adult	N/A
26	Hand (MC V)	1	Good-Moderate	12	?	?	N/A
26	Vertebra (cervical)	1	Good-Moderate	12	?	?	Osteophytic lipping around margin of inferior body

26	Vertebrae (2x thoracic bodies)	2	Moderate-Poor	12	?	?	N/A
26	Vertebra (Lumbar body and left superior articular facet)	1	Moderate-Poor	12	?	?	Possible Schmorl's nodes on inferior body surface.
26	Foot (talus left)	1	Good-Moderate	12	?	?	N/A
26	Ribs (shafts)	6	Poor	12	?	?	N/A
26	Ribs (1x left rib head)	1	Poor	12	?	?	N/A
26	Ribs (1x right rib head)	1	Poor	12	?	?	N/A
26	Clavicle (right)	1	Moderate-Poor	12	?	?	N/A
26	Clavicle (sternal end)	1	Poor	12	?	?	N/A
26	Sacrum (fragment)	1	Poor	12	?	?	N/A
26	Long bone (shaft fragments)	28	Poor	12	?	?	N/A
26	Pelvis (ilium fragments)	3	Poor	12	?	?	N/A
26	Pelvis (ischium left)	1	Poor	12	?	?	N/A
26	Hand (Metacarpal shafts)	2	Poor	12	?	?	N/A
26	Foot (MT I II III and V)	4	Moderate	12	?	?	Slight osteophytic lipping on margin of proximal articular surface of MT I)
26	Hand phalanges (3x proximal)	3	Good-Moderate	12	?	?	N/A

26	Hand (Metacarpals III and V)	2	Good	12	?	?	N/A
26	Scapula (fragments)	3	Poor	12	?	?	N/A
26	Patella (fragments)	2	Poor	12	?	?	N/A
26	Tibia (distal end fragment)	1	Poor	12	?	?	N/A
26	Femur (distal condyles)	2	Poor	12	?	?	N/A
26	Unidentifiable fragments	2	Poor	12	?	?	N/A
26	Femur (proximal head)	1	Moderate	12	?	?	N/A
26	Humerus (left)	1	Good-Moderate	12	?	Juvenile	N/A
26	Femur (Left)	1	Good-Moderate	12	?	Juvenile	N/A
26	Tibia (shaft)	1	Moderate-Poor	12	?	Juvenile	N/A
26	Humerii (shaft)	2	Moderate-Poor	12	?	?	N/A
26	Radius (shaft)	1	Moderate-Poor	12	?	?	N/A
26	Humerus (distal shaft and epicondyles left)	1	Good-Moderate	12	?	?	N/A
26	Ulna (proximal-mid shaft and head left)	1	Moderate	12	?	?	N/A
26	Mandible (Ramii fragments)	3	Moderate-Poor	12	?	?	N/A
26	Skull (zygomatic right)	1	Moderate-Poor	12	?	?	N/A

26	Skull (temporal left)	1	Moderate	12	Female?	Adult	N/A
26	Vertebra (neural arch fragment)	1	Poor	12	?	?	N/A
26	Pelvis (ilium right)	1	Moderate	12	?	Mid Adult	Slight osteophytic lipping on margin of acetabulum
26	Tibia (proximal head and proximal shaft)	1	Moderate-Poor	12	?	Adult?	N/A
26	Vertebra (neural arch fragment)	1	Moderate-Poor	12	?	?	N/A
26	Vertebra (body)	1	Moderate-Poor	12	?	Adult?	N/A
26	Foot (calcaneus left)	1	Good	12	?	?	N/A
26	Clavicle (left)	1	Moderate	12	?	Adult	N/A
26	Clavicle (Sternal end and shaft left)	1	Moderate	12	?	?	Osteophytic activity on costal tuberosity
26	Ulnae (2x left shaft and proximal head)	2	Moderate	12	?	?	N/A
26	Ulna (right shaft and proximal head)	1	Moderate	12	?	?	N/A
26	Femur (proximal head right)	1	Moderate	12	?	?	N/A
26	Femur (distal end and shaft)	1	Moderate	12	?	Juvenile	N/A
26	Femur (shaft)	1	Moderate	12	?	?	N/A

26	Tibia (proximal head and shaft)	1	Moderate-Poor	12	?	?	N/A
26	Humerus (shaft)	1	Moderate-Poor	12	?	?	N/A
26	Tibia (shaft)	1	Moderate-Poor	12	?	?	Traces of non-specific infection
26	Humerus (distal shaft)	1	Poor	12	?	?	N/A
26	Tibia (shaft fragment)	1	Poor	12	?	?	N/A
26	Radius (distal end and shaft right)	1	Moderate	12	?	?	N/A
26	Ulna (distal end and shaft)	1	Moderate	12	?	?	N/A
26	Fibula (shaft)	1	Poor	12	?	?	N/A
26	Tibia (right)	1	Moderate	12	?	Juvenile	N/A
26	Fibula (distal end and shaft)	2	Moderate-Poor	12	?	?	Severe non-specific infection on shaft fragment and possible healed fracture)
26	Long bone (shaft fragments)	2	Poor	12	?	?	N/A
26	Long bone (shaft fragments)	8	Poor	12	?	?	N/A
26	Foot (MT I)	1	Moderate-Poor	12	?	?	N/A
26	Foot (proximal phalanx proximal end and shaft)	1	Moderate-Poor	12	?	?	Possible healed fracture
26	Radius (distal end and shaft)	1	Moderate	12	?	?	N/A

	right						
26	Ribs (right)	2	Moderate	12	?	?	N/A
26	Femur (shaft)	2	Moderate-Poor	12	?	?	N/A
26	Femur (shaft and distal condyles left)	1	Good-Moderate	12	?	Adult?	Slight traces of lamellar bone.
26	Femora (2x right)	2	Good-Moderate	12	?	Adult x 2	Possible flattening of profile of femur.
26	Femur (proximal shaft)	1	Poor	12	?	?	N/A
26	Tibiae (shafts)	4	Poor	12	?	?	N/A
26	Tibia (shaft)	1	Moderate-Poor	12	?	Adult?	Lamellar bone on shaft
26	Ulna (distal end and shaft)	1	Moderate	12	?	?	N/A
26	Skull (frontal)	2	Moderate-Poor	12	?	?	N/A
26	Skull (parietal)	3	Moderate-Poor	12	?	?	N/A
26	Vertebra (neural arch fragment)	1	Poor	12	?	?	N/A
26	Foot (talus left)	1	Moderate-Poor	12	?	?	N/A
26	Pelvises (ilia leftx2)	2	Moderate-Poor	12	Female x 1	Mid Adult x2	N/A
26	Pelvis (ischium left)	1	Moderate-Poor	12	?	?	N/A
26	Pelvis (ilium fragment)	1	Poor	12	?	?	N/A

26	Humerus	1	Good-Moderate	12	?	Infant	N/A
26	Humerus (distal end and shaft)	1	Moderate	12	?	Juvenile	N/A
26	Skull (fragments)	14	Moderate-Poor	12	?	Infant	Articulated?
26	Rib (right)	1	Good	12	?	Infant	Articulated?
26	Ribs (left x5)	5	Good	12	?	Infant	Articulated?
26	Ribs (shafts)	3	Moderate-Poor	12	?	Infant	Articulated?
26	Vertebra (neural arch)	1	Good	12	?	Infant	Articulated?
26	Pelivis (ilium right)	1	Good	12	?	Infant	Articulated?
26	Phalanx	1	Good	12	?	Infant	Articulated?
26	Humerus (right)	1	Good	12	?	Infant	Articulated?
26	Humerus (left)	1	Good	12	?	Infant	Articulated?
26	Tibia (right)	1	Good	12	?	Infant	Articulated?
26	Tibia (left)	1	Good	12	?	Infant	Articulated?
26	Long bone (shaft fragments)	3	Moderate-Poor	12	?	Infant	Articulated?
26	Ulna (proximal head and shaft left)	1	Moderate	12	?	Infant	Articulated?
26	Radius (left)	1	Good	12	?	Infant	Articulated?

26	Fibula	1	Good	12	?	Infant	Articulated?
26	Pelvis (1x left 1x right)	1	Good-Moderate	12	?	Juvenile	N/A
26	Pelvis (ischium)	1	Good	12	?	Juvenile	N/A
26	Scapula (right)	1	Moderate	12	?	Juvenile	N/A
26	Ulna (left)	1	Good-Moderate	12	?	Juvenile	N/A
26	Ribs (left)	5	Good-Moderate	12	?	Juvenile	N/A
26	Ribs (right)	4	Moderate-Poor	12	?	Juvenile	N/A
26	Ribs (shafts)	5	Moderate-Poor	12	?	Juvenile	N/A
26	Rib (shaft)	1	Poor	12	?	?	N/A
26	Foot (MT II right)	1	Good-Moderate	12	?	?	N/A
26	Radius (proximal shaft)	1	Poor	12	?	?	N/A
26	Long bone (shaft fragment)	1	Poor	12	?	?	N/A
26	Fibula	1	Moderate	12	?	Juvenile	N/A
26	Hand (Metacarpal)	1	Moderate	12	?	Juvenile	N/A
26	Claviculae (2x right)	2	Good-Moderate	12	?	Juvenile x2	N/A
26	Clavicle (acromial end left)	1	Moderate	12	?	Juvenile?	N/A
26	Skull (temporal left)	1	Good-Moderate	12	?	Juvenile	N/A

26	Skull (fragments)	3	Poor	12	?	Juvenile?	N/A
26	Skull (occipital - pars basillaris)	1	Good	12	?	Juvenile	N/A
26	Mandible (right)	1	Good-Moderate	12	?	Juvenile	N/A
26	Mandible (fragments right)	2	Moderate-Poor	12	?	Juvenile	N/A
26	Vertebrae (bodies x 2)	2	Good	12	?	Juvenile	N/A
26	Vertebrae (neural arch fragments)	3	Poor	12	?	Juvenile	N/A
26	Vertebra (atlas 1x left 1x right)	2	Good-Moderate	12	?	Juvenile	N/A
26	Pelvis (ilium fragment)	1	Moderate-Poor	12	?	?	None visible.
26	Humerus (shaft fragment)	1	Moderate-Poor	12	?	?	None visible.
26	Unidentifiable fragments	10	Poor	12	?	?	None visible.
26	Clavicle (right)	1	Moderate	12	?	?	None visible.
26	Ribs (shaft fragments)	4	Moderate-Poor	12	?	?	None visible.
26	Skull (temporal right x 1 & fragments x 6)	7	Moderate	12	?	Juvenile?	None visible.
26	Femur (proximal head)	1	Moderate-Poor	12	?	?	None visible.
26	Scapula (coracoid process fragment)	1	Moderate-Poor	12	?	?	None visible.

26	Tibia (shaft fragment)	1	Poor	12	?	?	None visible.
26	Humerus (shaft fragment)	1	Moderate	12	?	?	None visible.
26	Humerus (distal shaft right)	1	Moderate	12	?	Juvenile	None visible.
26	Femur (shaft)	1	Moderate-Poor	12	?	Juvenile?	None visible.
26	Tibiae (left x 1 & right x 1)	2	Good-Moderate	12	?	Infant	None visible.
26	Fibulae (left x 1 & right x 1)	2	Good-Moderate	12	?	Infant	None visible.
26	Ulna (shaft)	1	Moderate	12	?	Infant	None visible.
26	Skull (fragments)	23	Moderate-Poor	12	?	?	None visible.
26	Skull (fragment)	1	Good-Moderate	12	?	Juvenile	None visible.
26	Radius (shaft)	1	Moderate	12	?	?	None visible.
26	Femur (proximal head)	1	Moderate-Poor	12	?	Juvenile	None visible.
26	Foot (MC III right x 1 & MC V left x 1)	2	Good-Moderate	12	?	?	None visible.
26	Humerus (midshaft-distal shaft)	1	Moderate	12	?	Infant	None visible.
26	Tibia (proximal head)	1	Moderate-Poor	12	?	?	None visible.
26	Humerus (proximal-midshaft)	1	Moderate	12	?	Juvenile	None visible.
26	Pelvis (ischium left)	1	Good-Moderate	12	?	Juvenile	None visible.

26	Unidentifiable fragments	5	Poor	12	?	?	None visible.
26	Vertebra (lumbar)	1	Moderate	12	?	?	None visible.
26	Foot (calcaneus fragment)	1	Poor	12	?	?	None visible.
26	Ribs (shaft fragments)	1	Moderate-Poor	12	?	?	None visible.
26	Skull	1	Moderate	12	?	Adult?	Copper staining
26	Tibiae (shafts)	2	Good-Moderate	12	?	?	None visible.
26	Tibia (proximal head-proximal shaft left)	1	Good-Moderate	12	?	?	None visible.
26	Tibia (shaft-distal end left)	1	Moderate	12	?	?	None visible.
26	Femur (shaft)	1	Good-Moderate	12	?	Juvenile	None visible.
26	Femur (shaft fragment)	1	Moderate	12	?	?	None visible.
26	Femur (proximal shaft- distal condyles right)	1	Good-Moderate	12	?	Adult?	None visible.
26	Humerii (proximal head-shaft right x 2)	2	Moderate	12	?	?	1 x extremely grassile humerus (very wasted appearance).
26	Humerus (shaft)	1	Moderate-Poor	12	?	?	None visible.
26	Radii (left x 1 & right x 1)	2	Good-Moderate	12	?	Adult? x 1 & Juvenile x 1	None visible.
48	Skull	27	Good-Moderate	1	?	Juvenile	Copper staining

48	Mandible	1	Good	1	?	Juvenile	None visible.
58	Foot (cuboid right)	1	Good-Moderate	1	?	?	None visible.
58	Vertebra (lumbar)	1	Good-Moderate	1	?	?	Schmorl's nodes.
58	Ribs (shaft fragments)	4	Moderate	1	?	?	None visible.
58	Humerus (proximal head)	1	Moderate	1	?	?	None visible.
58	Foot (MT III right)	1	Good-Moderate	1	?	?	None visible.
58	Foot (proximal phalanx)	1	Good-Moderate	1	?	?	None visible.
58	Pelvis (ilium right)	1	Moderate	1	?	Juvenile	None visible.
58	Foot (calcaneus right)	1	Moderate	1	?	?	None visible.
60	Scapula (Acromion)	1	Good-Moderate	1	?	?	None visible.
76	Fibula (shaft)	1	Moderate	3	?	?	None visible.
76	Clavicle (right)	1	Good-Moderate	3	?	Adult?	None visible.
76	Skull (fragment)	1	Moderate	3	?	?	None visible.
76	Ribs (right)	3	Good-Moderate	3	?	?	None visible.
76	Mandible	1	Moderate	3	?	Adult?	None visible.
76	Femur (left)	1	Good-Moderate	3	?	Juvenile	None visible.
76	Clavicle (right)	1	Moderate	3	?	?	None visible.

76	Humerus (distal end right)	1	Moderate	3	?	?	None visible.
76	Fibula (distal end right)	1	Moderate-Poor	3	?	?	None visible.
76	Skull (temporal right x 1 & fragments x 3)	4	Moderate	3	?	Juvenile?	None visible.
76	Pelvis (ilium)	1	Moderate	3	?	Old Adult?	None visible.
76	Sacrum	1	Moderate	3	?	?	None visible.
76	Vertebrae (thoracic)	2	Moderate	3	?	Adult?	Schmorl's nodes.
76	Foot (calcaneus left x 1 & calcaneus right x 1)	2	Good-Moderate	3	?	Adult?	None visible.
76	Hand (MC V right)	1	Moderate	3	?	?	None visible.
76	Foot (MT IV right x 1, MT IV left x 1, MT V right x 1)	3	Good-Moderate	3	?	Adult?	None visible.
76	Foot (MT III right x 1)	1	Good-Moderate	3	?	Adult	Warped shaft. Distortion caused by footwear?
76	Foot (proximal phalanx)	1	Good	3	?	?	None visible.
76	Humerus (proximal head fragment)	1	Good-Moderate	3	?	?	None visible.
76	Fibula (shaft-distal end left)	1	Good	3	?	Adult?	None visible.
76	Skull (fragment)	1	Good-Moderate	3	?	?	None visible.

76	Hand (distal phalanges x 2)	2	Good-Moderate	3	?	?	None visible.
78	Vertebra (L5)	1	Good	1	?	Adult?	Failure of fusion of lumbar neural arch. Found with skeletons [78] A & B.
78	Tibia (distal shaft and end)	1	Good-Moderate	1	?	?	Osteomyelitis. Found with skeletons [78] A & B
78	Ulna (right)	1	Good	1	?	?	None visible.
78	Radius (left x 1)	2	Good-Moderate	1	?	?	None visible.
87	Rib (shaft fragment)	1	Moderate-Poor	1	?	?	None visible.
87	Unidentifiable fragment	1	Poor	1	?	?	None visible.
100	Tibia (distal end fragment)	1	Moderate-Poor	2	?	?	None visible.
100	Mandible (fragment)	1	Moderate	2	?	?	None visible.
100	Rib (right)	1	Moderate	2	?	?	None visible.
100	Hand (Metacarpal shaft)	1	Good-Moderate	2	?	Juvenile	None visible.
100	Vertebra (body)	1	Good-Moderate	2	?	Juvenile	None visible.
100	Vertebra (thoracic)	1	Moderate	2	?	?	None visible.
100	Vertebra (lumbar neural arch)	1	Moderate-Poor	2	?	?	None visible.
100	Unidentifiable fragments	6	Poor	2	?	?	None visible.

100	Mandible (ramus left)	1	Moderate	2	?	?	None visible.
100	Hand (Middle phalanx)	1	Good-Moderate	2	?	?	None visible.
101	Patella (right)	1	Good-Moderate	4	?	?	None visible.
101	Hand (shaft fragments)	2	Moderate-Poor	4	?	?	None visible.
101	Foot (MT I left)	1	Moderate	4	?	Juvenile?	None visible.
101	Clavicle (left)	1	Good-Moderate	4	?	?	None visible.
101	Foot (proximal phalanx)	1	Good	4	?	?	None visible.
101	Pelvis (ilium left)	1	Moderate	4	?	Young Adult	None visible.
101	Scapulae (left x 2)	5	Moderate	4	?	Adult?	None visible.
101	Ulna (shaft fragment)	1	Moderate-Poor	4	?	?	None visible.
101	Ulna (proximal head-mid shaft left)	1	Good-Moderate	4	?	Infant	None visible.
101	Ulna (distal shaft?)	1	Moderate-Poor	4	?	Infant	None visible.
101	Skull (fragments)	3	Moderate	4	?	Juvenile	None visible.
101	Skull (fragments)	3	Moderate-Poor	4	?	Neonate-Infant	None visible.
101	Rib (shaft fragment)	1	Moderate	4	?	Juvenile	None visible.
101	Ribs (left x 1 & right x 1)	2	Moderate	4	?	Infant	None visible.

101	Vertebra (cervical)	1	Moderate	4	?	?	None visible.
101	Vertebra (thoracic)	1	Moderate	4	?	?	Slight trace of osteophytic lipping.
101	Vertebra (thoracic body)	1	Moderate	4	?	?	Schmorl's nodes.
101	Vertebrae (neural arch fragments)	3	Moderate-Poor	4	?	?	None visible.
101	Unidentifiable fragments	8	Poor	4	?	?	None visible.
101	Pelvis (ischium left)	1	Moderate	4	?	?	None visible.
101	Skull (fragments)	8	Moderate	4	?	?	None visible.
101	Fibula (shaft-distal end left x 1)	2	Good-Moderate	4	?	?	None visible.
101	Ulna (proximal head-shaft left x 1)	2	Moderate	4	?	?	Slight soft tissue ossification on proximal head.
105	Humerus (shaft)	1	Moderate	1	?	?	None visible.
105	Mandible	1	Good-Moderate	1	?	Old Adult?	Edentulous.
105	Femur (distal condyles fragment)	1	Moderate-Poor	1	?	?	None visible.
120	Tibia (proximal shaft-midshaft)	1	Moderate	2	?	Neonate	None visible.
120	Rib (shaft fragment)	1	Poor	2	?	?	None visible.
125	Skull (x 1)	48	Moderate-Poor	3	?	Adult	None visible.

125	Femur (proximal head-shaft left)	1	Moderate	3	?	Adult	None visible.
125	Ulna (left)	1	Good-Moderate	3	?	Adult?	None visible.
125	Ulna (proximal head-midshaft left)	1	Good-Moderate	3	?	Adult?	None visible.
125	Ulna (shaft fragment)	1	Moderate-Poor	3	?	?	None visible.
125	Radius (distal shaft-end right)	1	Good-Moderate	3	?	?	None visible.
125	Tibia (shaft fragment)	1	Poor	3	?	?	None visible.
125	Humerus (shaft fragment)	1	Moderate	3	?	?	None visible.
125	Vertebrae (lumbar x 3)	3	Good-Moderate	3	?	Adult	Osteophytic lipping on superior margin of a single vertebra.
125	Vertebra (neural arch)	1	Moderate	3	?	Juvenile	None visible.
125	Ribs (shaft fragments)	2	Poor	3	?	?	None visible.
125	Hand (metacarpals x 2)	2	Moderate	3	?	?	None visible.
125	Foot (metatarsal)	1	Moderate	3	?	?	None visible.
125	Skull (fragment)	1	Moderate-Poor	3	?	?	None visible.
125	Skull (fragments)	4	Moderate-Poor	3	?	Juvenile?	None visible.
125	Talus (left)	1	Good-Moderate	3	?	?	None visible.
125	Unidentifiable fragments	6	Poor	3	?	?	None visible.

149	Humerus (right x 1)	1	Good	1	?	Adult	Robust individual.
149	Ulna (right x 1)	1	Good	1	?	Adult	Robust individual.
149	Radius (right x 1)	1	Good	1	?	Adult	None visible.
149	Hand (capitate right x 1, scaphoid right x 1, hamate right x 1, lunate right x 1 & triquetral right x 1)	5	Good	1	?	?	None visible.
149	Hand (MC I-MC V right)	5	Good	1	?	?	None visible.
149	Hand (proximal phalanges)	3	Good	1	?	?	None visible.
154	Radius (distal end)	1	Moderate	1	?	?	None visible.
154	Hand (proximal phalanges x 2 & middle phalanx x 1)	1	Moderate	1	?	?	None visible.
154	Unidentifiable fragments	2	Poor	1	?	?	None visible.
158	Humerus (shaft)	1	Moderate	1	?	?	None visible.
158	Humerus (epicondyle fragment)	1	Poor	1	?	?	None visible.
158	Clavicle (left)	1	Moderate	1	?	?	None visible.
158	Scapula (fragment)	1	Poor	1	?	?	None visible.
158	Ribs (shaft fragments)	2	Poor	1	?	?	None visible.
158	Rib (rib head fragment)	1	Poor	1	?	?	None visible.

158	Rib (left)	1	Moderate	1	?	?	None visible.
158	Foot (calcaneus left)	1	Moderate	1	?	?	None visible.
158	Femur (proximal shaft-distal shaft)	1	Moderate	1	?	Juvenile	None visible.
158	Tibia (right)	1	Good-Moderate	1	?	Juvenile	None visible.
158	Mandible (Ramus right)	1	Moderate	1	?	?	None visible.
158	Long bone (shaft fragments)	2	Poor	1	?	?	None visible.
158	Unidentifiable fragments	4	Poor	1	?	?	None visible.
158	Foot (MT IV left)	1	Good	1	?	?	None visible.
163	Skull (fragment)	1	Poor	2	?	?	None visible.
163	Dentition (incisor)	1	Good	2	?	?	None visible.
163	Pelvis (pubis left x 1, right x 1 & unsided x 1)	3	Moderate-Poor	2	?	Mid Adult	None visible.
163	Foot (Metatarsal shaft)	1	Poor	2	?	?	None visible.
163	Hand (MC I left x 1 & right x 1, MC II right x 1, MC III right x 1, MC IV right x 1, MC V left x 1, Metacarpal shaft unsided x 1)	7	Moderate	2	?	?	Copper staining on MC II
163	Hand (proximal phalanges x 6)	6	Good-Moderate	2	?	?	None visible.

163	Hand (middle phalanges x 5)	5	Good-Moderate	2	?	?	None visible.
163	Hand (distal phalanx)	1	Good	2	?	?	None visible.
163	Hand (scaphoid right x 2 & capitata right x 1)	3	Good-Moderate	2	?	?	None visible.
183	Humerus (left x 1)	2	Good-Moderate	1	?	Adult?	Found with skeleton [183]
183	Ulna (left proximal head and shaft)	2	Moderate	1	?	Adult?	Found with skeleton [183]
184	Unidentifiable fragments	1	Poor	1	?	?	None visible.
184	Foot (distal phalanx)	1	Good	1	?	?	None visible.
188	Vertebrae (L2-L5)	4	Good	1	?	Adult	Found with skeleton [188].
189	Vertebra (body fragment)	1	Moderate-Poor	1	?	?	None visible.
189	Vertebrae (neural arch fragments)	2	Moderate-Poor	1	?	Juvenile?	None visible.
189	Hand (proximal phalanx)	1	Good-Moderate	1	?	?	None visible.
192	Skull (parietal fragments)	3	Moderate	4	?	?	None visible.
192	Vertebrae (lumbar)	5	Moderate	4	?	Adult?	None visible.
192	Vertebra (thoracic)	1	Good-Moderate	4	?	?	None visible.
192	Rib (left)	1	Good-Moderate	4	?	?	None visible.

192	Mandible (fragment)	1	Moderate-Poor	4	?	?	A-M tooth loss and socket resorption.
192	Foot (Calcaneus right x 1 & left x 1)	2	Moderate-Poor	4	?	?	None visible.
192	Scapula (left)	1	Moderate	4	?	?	None visible.
192	Sacrae (x 2)	2	Moderate-Poor	4	?	?	None visible.
192	Femur (left)	1	Good-Moderate	4	?	Juvenile	None visible.
192	Femur (left)	1	Good-Moderate	4	?	?	Rickets.
192	Femur (right)	1	Good-Moderate	4	?	Adult?	None visible.
192	Femur (proximal head left)	1	Moderate-Poor	4	?	?	None visible.
192	Femur (proximal head)	1	Poor	4	?	?	None visible.
192	Tibiae (left x 1 & right x 1)	2	Moderate	4	?	Adult?	None visible.
192	Tibiae (shafts x 2)	2	Moderate-Poor	4	?	?	None visible.
192	Long bone (shaft fragment)	1	Moderate-Poor	4	?	?	Copper staining.
192	Fibula (shaft)	1	Moderate-Poor	4	?	?	None visible.
192	Femur (shaft)	1	Moderate-Poor	4	?	?	None visible.
192	Ulnae (left x 2)	2	Good-Moderate	4	?	Adult?	None visible.
192	Ulna (shaft)	1	Moderate	4	?	?	None visible.

192	Skull (fragments)	15	Moderate	4	?	Adult?	Copper staining on a single fragment.
192	Skull (fragments)	10	Moderate	4	?	Juvenile	Copper staining on a single fragment.
192	Ribs (shaft fragments)	15	Moderate-Poor	4	?	?	None visible.
192	Ribs (left)	6	Moderate	4	?	?	Slight traces of osteophytic lipping on margin of single rib head articular facets.
192	Rib (right)	4	Moderate	4	?	?	Copper staining on a single first rib.
192	Sacrum (fragments)	2	Moderate-Poor	4	?	?	None visible.
192	Clavicle (shaft fragment x 1 & left x 1)	2	Moderate-Poor	4	?	?	None visible.
192	Patella (fragment)	1	Moderate-Poor	4	?	?	None visible.
192	Scapula (fragments)	2	Poor	4	?	?	None visible.
192	Pelvis (fragments)	2	Poor	4	?	?	None visible.
192	Pelvis (fragments)	3	Moderate-Poor	4	?	Juvenile	None visible.
192	Vertebrae (lumbar x 1 & thoracic x 2)	3	Good-Moderate	4	?	Adult?	None visible.
192	Vertebrae (neural arch fragments)	2	Moderate-Poor	4	?	?	None visible.

192	Vertebra (body fragment)	1	Poor	4	?	?	None visible.
192	Tibia (shaft)	1	Moderate-Poor	4	?	?	None visible.
192	Tibia (distal end)	1	Moderate	4	?	?	None visible.
192	Tibia (proximal shaft-midshaft left)	1	Good-Moderate	4	?	Juvenile	None visible.
192	Tibia (proximal shaft-midshaft right)	1	Good-Moderate	4	?	Infant	None visible.
192	Fibulae (shafts x 3)	3	Moderate	4	?	?	None visible.
192	Femur (distal shaft)	1	Moderate	4	?	Juvenile	None visible.
192	Femur (distal condyles)	1	Poor	4	?	?	None visible.
192	Femur (shaft fragment)	1	Moderate-Poor	4	?	Adult?	None visible.
192	Femur (proximal heads)	2	Moderate-Poor	4	?	?	None visible.
192	Humerus (proximal head fragment)	1	Moderate-Poor	4	?	?	None visible.
192	Humerus (shaft fragments)	2	Poor	4	?	?	None visible.
192	Ulna (shaft fragment)	1	Moderate-Poor	4	?	?	None visible.
192	Ulna (right proximal head-midshaft)	1	Moderate	4	?	Juvenile	None visible.
192	Radius (shaft)	1	Moderate-Poor	4	?	?	None visible.

192	Radius (distal shaft-distal end right)	1	Good-Moderate	4	?	?	None visible.
192	Foot (MT II left x 2 & right x 1, MT III right x 1, MT IV right x 1 & left x 1 & MT V left x 1 & right x 1)	8	Good-Moderate	4	?	?	None visible.
192	Foot (proximal phalanges x 2 & middle phalanx x 1)	3	Good-Moderate	4	?	?	None visible.
192	Hand (MC V left x 1, MC IV right x 1 & metacarpal shaft x 1)	3	Moderate	4	?	?	None visible.
192	Hand (proximal phalanges x 3 & middle phalanx x 1)	4	Good-Moderate	4	?	?	None visible.
192	Long bone (shaft fragments)	8	Poor	4	?	?	None visible.
192	Unidentifiable fragments	7	Poor	4	?	?	None visible.
192	Clavicle (left)	1	Good-Moderate	4	?	?	Copper staining.
192	Radius (left)	1	Moderate-Poor	4	?	?	None visible.
192	Fibula (shaft fragment)	1	Moderate-Poor	4	?	?	None visible.
192	Long bone (shaft fragment)	1	Poor	4	?	?	None visible.
192	Vertebrae (thoracic x 1 & lumbar x 2)	3	Good-Moderate	4	?	Adult?	Osteophytic lipping around the margin of a single lumbar vertebra.
192	Pelvis (ilium right)	1	Moderate-Poor	4	?	?	None visible.

192	Scapulae (fragments x 2)	3	Moderate-Poor	4	?	?	None visible.
192	Foot (MTI left x 1 & right x 1)	2	Moderate	4	?	?	OA on distal joint surface of left MT I.
192	Hand (MC I right x 1 & MC IV right x 1)	2	Good-Moderate	4	?	?	None visible.
192	Hand (proximal phalanx)	1	Moderate	4	?	?	None visible.
192	Skull (fragments)	10	Moderate	4	?	Juvenile?	Copper staining on several fragments.
193	Mandible (x 1)	2	Moderate	2	?	Old Adult	None visible.
193	Mandible (Ramus fragment)	1	Poor	2	?	?	None visible.
193	Foot (Calcaneus right)	1	Moderate	2	?	?	None visible.
193	Clavicle (right fragment)	1	Moderate	2	?	Adult?	None visible.
193	Long bone (fragment)	1	Poor	2	?	?	None visible.
193	Tibia (left)	1	Moderate	2	?	Infant-Juvenile	None visible.
195	Scapula (right x 1)	2	Moderate-Poor	1	?	?	None visible.
195	Mandible (Ramus right)	1	Good-Moderate	1	?	?	None visible.
199	Vertebra (neural arch fragment)	1	Moderate-Poor	3	?	?	None visible.
199	Patella (left)	1	Good	3	?	?	None visible.

199	Clavicle (shaft fragment)	1	Moderate-Poor	3	?	?	None visible.
199	Ribs (shaft fragments)	4	Poor	3	?	?	None visible.
199	Fibula (shaft fragment)	1	Poor	3	?	?	None visible.
199	Skull (fragments)	22	Moderate-Poor	3	?	Juvenile	Copper staining.
199	Pelvis (ilium right)	1	Good-Moderate	3	?	Infant	None visible.
199	Tibia (shaft)	1	Moderate-Poor	3	?	Infant	None visible.
199	Hand (MC III left x 1, right x 1 & unsided fragment)	3	Moderate-Poor	3	?	?	Possible infection in one MC III.
199	Hand (proximal phalanges x 4 & middle phalanx x 1)	5	Good-Moderate	3	?	?	None visible.
199	Scapula (fragments)	2	Moderate-Poor	3	?	?	None visible.
199	Long bone (shaft fragments)	6	Poor	3	?	?	None visible.
199	Unidentifiable fragments	10	Poor	3	?	?	None visible.
199	Humerus (proximal head-proximal shaft right)	1	Good-Moderate	3	?	?	None visible.
199	Ulna (proximal shaft left)	1	Moderate	3	?	?	None visible.
199	Femur (shaft)	1	Moderate-Poor	3	?	?	None visible.
199	Tibia (shaft)	1	Moderate	3	?	?	Lamellar bone on shaft.

199	Tibia (proximal head fragments)	3	Poor	3	?	?	None visible.
199	Pelvis (ilium fragment)	1	Moderate-Poor	3	?	Juvenile?	None visible.
199	Scapula (right)	1	Moderate	3	?	?	None visible.
199	Vertebra (body)	1	Moderate	3	?	?	None visible.
199	Vertebra (thoracic)	1	Good-Moderate	3	?	?	None visible.
200	Humerus (shaft-distal epicondyles left x 1)	2	Moderate-Poor	2	?	Adult?	None visible.
200	Femur (shaft)	1	Moderate-Poor	2	?	Adult?	None visible.
200	Foot (Calcaneus left)	1	Good	2	?	?	None visible.
200	Sacrum (fragment)	1	Moderate-Poor	2	?	?	None visible.
200	Scapula (fragment right)	1	Moderate	2	?	?	None visible.
200	Unidentifiable fragments	1	Poor	2	?	?	None visible.
200	Skull (maxilla fragment left)	1	Moderate	2	?	Young-Mid Adult	Caries?
200	Vertebra	1	Good-Moderate	2	?	?	None visible.
200	Vertebra (body fragment)	1	Poor	2	?	?	None visible.
200	Humerus (midshaft-distal shaft)	1	Moderate	2	?	Infant?	None visible.
200	Ribs (shaft fragments)	3	Moderate-Poor	2	?	?	None visible.

200	Rib (left)	1	Moderate	2	?	?	Copper staining.
204	Vertebra (cervical)	1	Good-Moderate	1	?	?	Slight traces of porosity on margin on vertebral body.
204	Vertebra (neural arch fragment)	1	Poor	1	?	?	None visible.
204	Rib (shaft fragment)	1	Poor	1	?	?	None visible.
206	Scapula (unfused acromion)	1	Moderate	1	?	Juvenile	N/A
210	Rib (shaft fragment)	1	Poor	1	?	Juvenile?	N/A
210	Vertebrae (neural arch fragment)	1	Poor	1	?	?	N/A
210	Foot (Metatarsal III left)	1	Good	1	?	?	N/A
210	Fibula (distal shaft and end left)	1	Moderate	1	?	?	N/A
210	Tibia (left)	1	Good-Moderate	1	?	?	N/A
210	Femur (right)	1	Good-Moderate	1	?	?	Grassile
210	Femur (Left)	1	Good-Moderate	1	?	?	N/A
212	Clavicle (right)	1	Moderate	3	?	?	None visible.
212	Vertebra (cervical)	1	Good-Moderate	3	?	?	Porosity and slight osteophytic lipping on margins of body.
212	Skull (fragment)	1	Moderate	3	?	Juvenile?	None visible.

212	Tibia (shaft)	1	Moderate-Poor	3	?	?	None visible.
212	Ulna (proximal head-midshaft right)	1	Moderate	3	?	Adult?	None visible.
212	Foot (MT II right x 1 & MT III left x 1)	2	Moderate	3	?	?	None visible.
212	Hand (proximal phalanx)	1	Good-Moderate	3	?	?	None visible.
212	Foot (proximal phalanges)	1	Good	3	?	?	Severe OA and remodelling of proximal joint surface of one phalanx.
212	Skull (fragment)	1	Moderate-Poor	3	?	Juvenile?	None visible.
212	Vertebrae (neural fragments)	3	Poor	3	?	?	None visible.
212	Long bone (shaft fragment)	1	Moderate-Poor	3	?	?	None visible.
212	Tibia (shaft)	1	Moderate	3	?	Infant?	None visible.
212	Ribs (shaft fragments)	4	Moderate-Poor	3	?	?	None visible.
220	Tibia (shaft and distal end left)	1	Moderate	2	?	?	N/A
220	Humerus (shaft)	1	Moderate-Poor	2	?	?	Grassile
220	Sacrum	1	Moderate-Poor	2	?	?	N/A
220	Scapula (glenoid fossa right)	1	Poor	2	?	?	N/A
220	Vertebrae (Axis)	1	Good	2	?	?	N/A

220	Vertebrae (upper thoracic)	1	Good-Moderate	2	?	?	N/A
220	Vertebrae (cervical fragment)	1	Moderate-Poor	2	?	Juvenile	N/A
220	Vertebrae (neural arch)	1	Moderate	2	?	Juvenile	N/A
220	Skull (parietal fragments)	6	Moderate-Poor	2	?	?	N/A
220	Skull (Sphenoid fragments)	2	Moderate-Poor	2	?	?	N/A
220	Pelvis (ilium fragments)	3	Poor	2	?	?	N/A
220	Rib (head and partial shaft fragment left)	1	Moderate-Poor	2	?	?	N/A
220	Ribs (shaft fragments)	2	Poor	2	?	?	N/A
220	Foot (Metatarsal)	1	Moderate	2	?	Juvenile	N/A
220	Hand (Metacarpal II right)	1	Moderate	2	?	?	N/A
224	Ulna (shaft and proximal head)	2	Moderate-Poor	1	?	?	N/A
237	Skull (fragments)	11	Poor	1	?	Infant-Juvenile	Copper staining on one fragment of skull.
237	Dentition (incisors x 4, canines x 2, molars x 7)	13	Good	1	?	Infant-Juvenile	None visible.
242	Fibula (shaft)	1	Moderate-Poor	1	?	?	N/A
242	Vertebrae (T2)	1	Good-Moderate	1	?	?	N/A

242	Vertebrae (Mid thoracic)	1	Good-Moderate	1	?	?	Slight osteophytic lipping on mid part of inferior body margin. Slight Schmorl's nodes on superior body surface.
242	Skull (parietal fragment)	1	Moderate-Poor	1	?	Juvenile?	N/A
242	Ribs (shaft fragments)	2	Poor	1	?	Juvenile?	N/A
242	Ulna (shaft and proximal head right)	1	Moderate	1	?	Juvenile	N/A
242	Foot (Metatarsal IV left)	1	Good-Moderate	1	?	?	N/A
242	Foot (MT II unsided)	1	Moderate	1	?	?	None visible.
242	Vertebrae (Atlas & Axis)	2	Good	1	?	?	None visible.
242	Skull (fragment)	1	Moderate-Poor	1	?	?	None visible.
242	Long bone (fragments)	2	Poor	1	?	?	None visible.
242	Rib (shaft fragment)	1	Moderate	1	?	?	None visible.
242	Tibia (shaft fragment)	1	Moderate	1	?	?	None visible.
242	Humerus (proximal head-proximal shaft right)	1	Good-Moderate	1	?	?	None visible.
242	Humerus (distal shaft-distal end right)	1	Moderate	1	?	?	None visible.
243	Femur (Left)	1	Good	1	?	Adult	Rickets. Articulated?

243	Patella (left)	1	Good	1	?	?	Rickets. Articulated?
243	Fibula (left)	1	Good-Moderate	1	?	Adult	Rickets. Articulated?
243	Tibia (left)	1	Good	1	?	Adult	Rickets. Articulated?
243	Pelvis (left)	1	Good	1	Male	Mid Adult	Grassile. Articulated? Slight osteophytic lipping around margins of auricular surface.
243	Pelvis (right)	1	Good	1	Male	Mid Adult	Grassile. Articulated? Slight osteophytic lipping around margins of auricular surface.
243	Ulna (left)	1	Good	1	?	Adult	Rickets. Articulated?
243	Radius (left shaft and distal end)	1	Good-Moderate	1	?	Adult	Rickets. Articulated?
243	Ribs (shafts)	2	Moderate	1	?	?	Articulated?
243	Unidentifiable fragments	4	Poor	1	?	?	N/A
243	Femur (right)	1	Good	1	?	Adult	Rickets. Articulated?
243	Tibia (right)	2	Good-Moderate	1	?	Adult	Rickets. Articulated?
243	Patella (right)	1	Good	1	?	Adult	Rickets. Articulated?
243	Fibula (shaft)	1	Moderate	1	?	Adult	Rickets. Articulated?
243	Sacrum	1	Good	1	Female?	Adult	Rickets. Articulated?

243	Lumbar (L3, L4 and L5)	3	Good	1	?	Adult	L3- Slight osteophytic lipping around the superior body margin. L4 - Osteophytic lipping around the inferior and superior body margins possible fracture/collapse at centre of superior body margin. L5 - Possible slight remodelling, osteophytic lipping and porosity in left superior articular facet. Articulated?
243	Fibula (right proximal head and proximal shaft)	1	Good-Moderate	1	?	Adult	Some flattening of shaft profile- rickets. Articulated?
243	Ulna (fragment of distal end)	1	Poor	1	?	?	N/A
243	Carpals (left x lunate, hamate, scaphoid, triquetral, trapezoid, trapezium, capitate)	7	Good	1	?	Adult	Grassile. Articulated?
243	Metacarpals (MC I, II, III, V)	4	Good	1	?	Adult	Grassile. Articulated?
243	Hand phalanges (1x distal phalanx & 1x middle phalanx)	1	Good	1	?	?	Grassile. Articulated?
243	Tarsals (left and right calcanei, left and right talii, left and right naviculae, left and right cuboids, left cunieforms I, II and III and right cunieforms I and II)	13	Good-Moderate	1	?	Adult	Articulated?
243	Metatarsals (Left MTs I-V and right MTs I-IV)	9	Good-Moderate	1	?	?	Articulated?

243	Foot phalanges (left and right 1st proximal, left 2nd-5th proximal, 1x 1st distal phalanx)	7	Good	1	?	?	Articulated?
244	Foot (Metatarsal)	1	Moderate	1	?	?	None visible.
245	Ulna (proximal head-shaft)	1	Moderate	1	?	?	None visible.
247	Skull	1	Good-Moderate	4	Female?	Young-Mid Adult?	None visible.
247	Skull (fragments)	9	Good-Moderate	4	?	Adult?	None visible.
247	Skull (x 1)	8	Good-Moderate	4	?	Juvenile	None visible.
247	Mandible (x 1)	2	Moderate	4	Male?	Adult	A-M tooth loss and socket resorption. Caries.
247	Mandible	1	Good	4	?	Juvenile	None visible.
247	Tibia (left)	1	Good-Moderate	4	?	Adult?	None visible.
247	Femur (left)	1	Good-Moderate	4	?	Adult?	None visible.
247	Ribs (left x 12 & right x 9)	21	Good-Moderate	4	?	Juvenile	None visible.
247	Ribs (left x 4 & right x 12)	16	Good-Moderate	4	?	?	Osteophytic lipping on joint margin of one left rib head.
247	Rib (shaft fragments)	4	Poor	4	?	?	None visible.
247	Claviculae (left x 1 & right x 1)	2	Good	4	?	Juvenile	None visible.

247	Claviculae (left x 1 & right x 1)	2	Good	4	?	?	None visible.
247	Clavicle (right)	1	Good-Moderate	4	?	?	None visible.
247	Skull (fragments)	2	Good-Moderate	4	?	Juvenile?	None visible.
247	Scapula (right x 1)	2	Good-Moderate	4	?	?	None visible.
247	Scapula (right)	1	Good-Moderate	4	?	Infant-Juvenile	None visible.
247	Pelvis (left x 1)	2	Good-Moderate	4	Female?	Mid Adult	None visible.
247	Sacrum	1	Good	4	Female?	?	None visible.
247	Skull (fragment)	1	Good	4	?	Juvenile?	None visible.
247	Vertebrae (C1-C5, T2-T12, L1-L2)	18	Good	4	?	Adult?	Slight osteophytic lipping on margins of T9-T12 vertebral bodies.
247	Vertebrae (C1-C7, thoracic x 7, lumbar x 1)	15	Good	4	?	Infant-Juvenile	None visible.
247	Vertebrae (thoracic bodes x 3 & thoracic neural arches x 4)	7	Good	4	?	Infant-Juvenile	None visible.
247	Sacrum (S1 & S2)	2	Good	4	?	Infant-Juvenile	None visible.
247	Dentition (incisors x 14, canines x 5 & pre-molars x 6)	25	Good	4	?	?	Caries on a single pre-molar.
247	Ulna (left)	1	Good-Moderate	4	?	Juvenile	None visible.

247	Ulna (right)	1	Good	4	?	Juvenile	None visible.
247	Radius (right)	1	Good	4	?	Juvenile	None visible.
247	Humerus (left)	1	Good-Moderate	4	?	Juvenile	None visible.
247	Foot (medial cunieform left)	1	Moderate	4	?	?	None visible.
247	Rib (rib head fragment)	1	Moderate	4	?	?	None visible.
247	Ribs (rib head fragments)	2	Moderate	4	?	Juvenile?	None visible.
247	Long bone (fragments)	2	Moderate-Poor	4	?	Juvenile?	None visible.
247	Vertebra (Atlas x 1)	2	Good-Moderate	4	?	Juvenile	None visible.
247	Vertebra (neural arch fragment)	1	Poor	4	?	?	None visible.
247	Long bone (fragment)	1	Poor	4	?	?	None visible.
247	Hand (MC V left)	1	Good	4	?	?	None visible.
247	Hand (proximal phalanx)	1	Good-Moderate	4	?	?	None visible.
247	Foot (proximal phalanx)	1	Good	4	?	?	None visible.
247	Skull (fragments)	31	Poor	4	?	?	None visible.
251	Radius (proximal head - midshaft)	1	Moderate	2	?	?	Found with skeleton [251].
251	Skull (frontal and maxilla fragments)	1	Moderate-Poor	2	?	Juvenile	Found with skeleton [251].

251	Vertebra	1	Moderate	2	?	Juvenile	Found with skeleton [251].
251	Humerus (unfused head)	1	Moderate	2	?	Juvenile	Found with skeleton [251].
251	Scapula (fragments)	3	Moderate-Poor	2	?	Juvenile	Found with skeleton [251].
251	Ribs (shaft fragments)	5	Poor	2	?	?	Found with skeleton [251].
251	Rib head (left)	1	Poor	2	?	?	Found with skeleton [251].
251	Metatarsals (x 2)	1	Good-Moderate	2	?	?	Found with skeleton [251].
251	Metacarpals (MTI - MTIV x 1 & MT V x 2)	6	Good	2	?	?	Found with skeleton [251].
251	Clavicle (shaft)	1	Moderate-Poor	2	?	Juvenile	Found with skeleton [251].
251	Hand (middle phalanges x 1 & proximal phalanges x 2)	3	Good-Moderate	2	?	?	Found with skeleton [251].
251	Hand (proximal phalanx)	1	Good	2	?	Juvenile	Found with skeleton [251].
251	Foot (proximal phalanx)	1	Good-Moderate	2	?	?	Found with skeleton [251].
251	Unidentifiable fragments	8	Poor	2	?	?	Found with skeleton [251].
254	Hand (proximal phalanx)	1	Good	1	?	Adult?	Associated with skeleton [255]
254	Dentition (incisors x 2, canines x 2, pre-molar x 1)	5	Good	1	?	?	Associated with skeleton [255]

254	Radius (left)	1	Good	1	?	Adult	Associated with skeleton [255]
254	Fibula (left x1)	2	Good-Moderate	1	?	Adult?	Associated with skeleton [255]
262	Tibia (midshaft-distal end)	1	Good-Moderate	1	?	Juvenile?	None visible.
262	Long bone (shaft fragments)	2	Poor	1	?	?	None visible.
267	Skull (parietal right x 1, temporal left x 1 & parietal fragment x 1)	3	Good-Moderate	4	?	Young Adult?	None visible.
267	Ribs (shaft fragments)	7	Moderate-Poor	4	?	?	None visible.
267	Pelvis (ilium fragments x 2)	2	Moderate	4	?	?	None visible.
267	Radius (shaft)	1	Moderate	4	?	?	None visible.
267	Tibia (left)	1	Moderate	4	?	Juvenile?	None visible.
267	Foot (Calcaneus right)	1	Good	4	?	?	None visible.
267	Foot (MT II left x 1 MT III left x 1, MT IV left x 1 & right x 1 & MT V left x 1)	5	Good	4	?	?	None visible.
267	Foot (metatarsals x 2)	2	Good-Moderate	4	?	Juvenile	None visible.
267	Foot (shaft)	1	Moderate	4	?	?	None visible.
267	Foot (proximal phalanges x 2)	2	Good	4	?	?	None visible.
267	Foot (calcaneus fragment)	1	Poor	4	?	?	None visible.

267	Long bone (shaft fragments)	9	Poor	4	?	?	None visible.
267	Skull (fragments)	2	Moderate-Poor	4	?	Infant?	None visible.
267	Unidentifiable fragments	12	Poor	4	?	?	None visible.
267	Fibula (shaft fragments)	4	Moderate-Poor	4	?	?	None visible.
267	Fibula (distal shaft-distal end right)	1	Moderate-Poor	4	?	?	None visible.
267	Femur (shaft)	1	Moderate	4	?	Juvenile	None visible.
267	Radius (shaft-distal end left)	1	Moderate	4	?	?	None visible.
267	Radius (distal end right)	1	Good-Moderate	4	?	?	None visible.
267	Humerus (fragments)	2	Poor	4	?	?	None visible.
267	Scapula (fragment left x 1 & unsided fragments x 2)	3	Moderate-Poor	4	?	?	None visible.
267	Tibia (shaft right)	1	Moderate	4	?	?	Potential healed lamellar bone.
267	Foot (Medial cunieform right x 1 & left x 1)	2	Good	4	?	?	None visible.
267	Vertebrae (lumbar x 2)	2	Moderate	4	?	?	Schmorl's nodes on one vertebra.
267	Vertebrae (body x 1 & neural arch x 1)	2	Moderate	4	?	?	Schmorl's nodes on the body.
267	Foot (Metatarsal shafts)	2	Moderate	4	?	?	None visible.

267	Foot (MT I left x 1 & right x 1, MT II left x 1 & right x 1, MT III left x 1, MT V right x 1)	6	Good	4	?	?	None visible.
267	Long bone (shaft fragments)	5	Poor	4	?	?	None visible.
267	Ribs (shaft fragments)	3	Poor	4	?	?	None visible.
267	Ribs (right)	2	Good-Moderate	4	?	Juvenile	None visible.
267	Foot (Calcaneii left x 2)	2	Good-Moderate	4	?	?	None visible.
267	Pelvis (ilium fragment)	1	Moderate-Poor	4	?	Juvenile?	None visible.
267	Skull (fragments)	4	Moderate-Poor	4	?	?	None visible.
267	Skull (fragments)	3	Moderate-Poor	4	?	Infant?	None visible.
267	Skull (fragment)	1	Moderate	4	?	?	None visible.
284	Pelvis (right)	1	Moderate	2	?	Mid Adult	None visible.
284	Skull (fragments)	2	Moderate	2	?	?	None visible.
284	Femur (right)	1	Good	2	?	Juvenile	None visible.
284	Cricoid (fragment)	1	Moderate	2	?	?	None visible.
284	Pelvis (pubis right)	1	Good	2	?	Juvenile	None visible.
284	Rib (right)	1	Good	2	?	Juvenile	None visible.
284	Foot (Metatarsal shaft)	1	Moderate	2	?	Juvenile	None visible.

284	Foot (MT V left)	1	Good-Moderate	2	?	?	None visible.
284	Scapula (left x 1 and unsided fragment x 1)	2	Moderate	2	?	?	None visible.
284	Femur (proximal head-shaft)	1	Moderate	2	?	Juvenile	None visible.
284	Vertebra (lumbar)	1	Good-Moderate	2	?	?	Slight cut on superior surface of body.
284	Vertebra (lumbar?)	1	Good	2	?	Juvenile	None visible.
284	Vertebra (neural arch)	1	Moderate	2	?	Juvenile	None visible.
284	Foot (proximal phalanx)	1	Good	2	?	?	None visible.
284	Pelvis (ilium left x 1 & ischium left x 1)	2	Good	2	?	Juvenile	None visible.
284	Ribs (shaft fragments)	5	Moderate-Poor	2	?	?	None visible.
284	Ribs (left x 2 & right x 2)	4	Good-Moderate	2	?	Juvenile	None visible.
284	Foot (MT II left)	1	Good-Moderate	2	?	?	None visible.
284	Skull (fragments)	5	Moderate	2	?	Juvenile	None visible.
284	Pelvis (fragment)	1	Poor	2	?	?	None visible.
284	Unidentifiable fragments	4	Poor	2	?	?	None visible.
284	Unidentifiable fragments	5	Poor	2	?	?	None visible.

284	Vertebrae (cervical bodies x 2)	1	Good-Moderate	2	?	?	Severe vertebral collapse and ankylosis.
284	Rib (right)	1	Good	2	?	Juvenile	None visible.
284	Rib (rib shaft)	1	Moderate	2	?	?	None visible.
297	Clavicle (left)	1	Good	1	?	Adult?	Found with skeleton [297].
303	Sacrum (fragments)	3	Poor	1	?	?	None visible.
306	Humerus (right)	1	Good-Moderate	1	?	?	Distal epicondyles are extremely deformed and large amounts of osteophytic activity is visible. Found with skeleton [306].
315	Clavicle (right)	1	Good	3	?	?	Possible post-mortem dissection cuts.
315	Scapula (fragment)	1	Moderate-Poor	3	?	?	None visible.
315	Fibula (shaft)	1	Moderate	3	?	?	None visible.
315	Vertebrae (Atlas x 1, thoracic x 1 & lumbar x 3)	5	Good-Moderate	3	?	?	None visible.
315	Pelvis (ilium right x 1)	1	Good-Moderate	3	?	Juvenile	None visible.
315	Mandible (right)	1	Good	3	Male?	Mid-Old Adult?	A-M tooth loss and socket resorption.
315	Dentition (incisor & canine)	2	Good	3	?	Adult?	None visible.

315	Ribs (left x 2)	2	Moderate	3	?	?	None visible.
315	Rib (shaft fragment)	1	Moderate-Poor	3	?	?	None visible.
315	Tibia	1	Good-Moderate	3	?	Neonate	None visible.
315	Unidentifiable fragments	1	Poor	3	?	?	None visible.
320	Clavicle (left)	1	Good-Moderate	3	?	Adult	OA on acromial head.
320	Hand (MC II right)	1	Good	3	?	?	None visible.
320	Foot (proximal phalanx)	1	Good	3	?	?	None visible.
322	Rib (shaft)	1	Moderate	1	?	?	None visible.
328	Vertebra (thoracic)	1	Good-Moderate	1	?	Adult?	Schmorl's nodes.
339	Skull (temporal left)	1	Moderate	1	?	Juvenile	None visible.
339	Foot (Metatarsals x 4)	4	Moderate-Poor	1	?	?	None visible.
339	Dentition (pre-molar)	1	Good-Moderate	1	?	?	None visible.
350	Skull (fragments)	2	Moderate	3	?	?	None visible.
350	Mandible (fragment)	1	Moderate	3	?	Mid-Old Adult	A-M tooth loss and socket resorption.
350	Radius (proximal head)	1	Moderate	3	?	Adult?	Robust individual.
350	Clavicle (left)	1	Good-Moderate	3	?	?	None visible.

350	Unidentifiable fragments	3	Poor	3	?	?	None visible.
350	Ribs (shaft fragments)	11	Moderate-Poor	3	?	?	None visible.
350	Ribs (right x 3 & left x 1)	4	Moderate	3	?	?	None visible.
350	Scapula (left x 1)	3	Moderate-Poor	3	?	Adult?	Copper staining.
350	Sacrae (x 2)	2	Moderate	3	?	?	None visible.
350	Sternum (manubrium fragment & sternal body fragment)	2	Good-Moderate	3	?	?	None visible.
350	Vertebrae (neural arch fragments)	2	Poor	3	?	?	None visible.
350	Tibia (proximal shaft-midshaft)	1	Moderate	3	?	Infant	None visible.
350	Hand (metacarpals x 2)	2	Moderate	3	?	?	None visible.
350	Hand (MC V left)	1	Good-Moderate	3	?	?	None visible.
350	Tibiae (shafts)	2	Moderate	3	?	?	None visible.
350	Radius (midshaft-distal end right)	1	Good-Moderate	3	?	?	None visible.
350	Ulna (proximal head-shaft left)	2	Moderate	3	?	?	None visible.
350	Rib (1st rib right)	1	Good-Moderate	3	?	?	None visible.
350	Scapulae (fragments left x 1 & right x 1)	2	Moderate	3	?	?	None visible.

350	Foot (talus right x 1)	1	Good-Moderate	3	?	?	None visible.
350	Foot (MT IV left)	1	Good	3	?	?	None visible.
350	Skull (frontal & other fragments)	13	Good-Moderate	3	?	?	None visible.
361	Ribs (shaft fragments)	4	Poor	3	?	?	None visible.
361	Rib (right)	1	Moderate-Poor	3	?	Infant?	None visible.
361	Long bone (shaft fragments)	2	Poor	3	?	?	None visible.
361	Ribs (right)	4	Moderate	3	?	?	OA on two rib heads
361	Ribs (left)	5	Good	3	?	?	None visible.
361	Hyoid (fragment)	1	Moderate	3	?	?	None visible.
361	Vertebrae (lumbar x 2)	2	Good-Moderate	3	?	?	Schmorl's nodes.
361	Vertebra (thoracic)	1	Good-Moderate	3	?	?	None visible.
361	Foot (Calcaneus right)	1	Good-Moderate	3	?	?	None visible.
361	Humerus (distal shaft-epicondyles)	1	Moderate-Poor	3	?	?	None visible.
361	Tibia (midshaft-distal end)	1	Moderate	3	?	Infant	None visible.
361	Hand (scaphoid right)	1	Good	3	?	?	None visible.
361	Hand (proximal phalanx x 1 & distal phalanx)	1	Good-Moderate	3	?	?	None visible.

361	Pelvis (fragments)	7	Poor	3	?	?	None visible.
361	Skull (fragments)	2	Moderate-Poor	3	?	Infant?	None visible.
361	Dentition (pre-molar)	1	Good	3	?	?	None visible.
361	Femur (proximal head-proximal shaft right)	1	Good-Moderate	3	?	Adult?	None visible.
361	Tibia (shaft x 1)	2	Good-Moderate	3	?	Juvenile?	None visible.
364	Skull (fragments)	2	Poor	1	?	?	None visible.
364	Vertebra (neural arch fragment)	1	Poor	1	?	?	None visible.
364	Rib (shaft)	1	Moderate-Poor	1	?	?	None visible.
364	Hand (Metacarpal shaft)	1	Moderate-Poor	1	?	?	None visible.
364	Hand (phalanx)	1	Poor	1	?	?	None visible.
364	Unidentifiable fragment	1	Poor	1	?	?	None visible.
366	Vertebrae (Axis x 1 & Lumbar x 1)	2	Good-Moderate	3	?	?	None visible.
366	Scapula (fragment)	1	Moderate-Poor	3	?	?	None visible.
366	Humerus (left)	1	Good	3	?	Infant	None visible.
366	Humerus (right)	1	Good	3	?	Juvenile	None visible.
366	Long bone (shaft fragment)	1	Poor	3	?	?	None visible.

366	Sacrum (fragments)	3	Moderate-Poor	3	?	?	None visible.
366	Foot (Intermediate Cuneiform left)	1	Good-Moderate	3	?	?	None visible.
366	Foot (MT III left x 1 & MT unsided x 1)	2	Moderate-Poor	3	?	?	None visible.
366	Hand (metacarpal)	1	Moderate	3	?	?	None visible.
366	Tibia (left)	1	Good-Moderate	3	?	Adult?	Some torsion of bone's profile? Rickets?
366	Foot (MT IV right)	1	Good-Moderate	3	?	?	None visible.
369	Radius	1	Good-Moderate	1	?	Infant	None visible.
375	Skull (left temporal)	1	Good-Moderate	2	?	?	Found with skeleton [375]
375	Humerus (left shaft and distal epicondyles)	1	Good-Moderate	2	?	Adult?	Found with skeleton [375]
375	Humerus (shaft)	1	Moderate	2	?	?	Found with skeleton [375]
375	Ulna (left)	1	Good-Moderate	2	?	Adult?	Found with skeleton [375]
375	Foot (Left calcaneus, left talus, right talus)	3	Moderate-Poor	2	?	?	Found with skeleton [375]
375	Sacrum (fragments)	7	Moderate-Poor	2	?	?	Found with skeleton [375]
375	Humerus (shaft fragment)	1	Poor	2	?	?	Found with skeleton [375]

375	Fibula (shaft fragment)	1	Moderate-Poor	2	?	?	Found with skeleton [375]. Copper staining.
375	Hand (Metacarpals x 2)	2	Moderate	2	?	?	Found with skeleton [375]
375	Mandible (fragment)	1	Moderate-Poor	2	?	Adult?	Found with skeleton [375]
375	Pelvis (left pubis)	1	Moderate	2	?	Old Adult?	Found with skeleton [375]
375	Ribs (shaft fragments)	6	Poor	2	?	?	Found with skeleton [375]
375	Hand (phalanges x 3)	3	Good	2	?	?	Found with skeleton [375]
375	Hand (capitate x 1, trapezium x 1)	1	Good-Moderate	2	?	?	Found with skeleton [375]
375	Sternum (manubrium)	1	Good	2	?	?	Found with skeleton [375]
375	Foot (Cunieform I)	1	Good	2	?	?	Found with skeleton [375]
375	Unidentifiable fragments	15	Poor	2	?	?	Found with skeleton [375]
375	Skull (fragment)	1	Poor	2	?	Juvenile	Found with skeleton [375]
376	Skull (fragments)	3	Moderate-Poor	1	?	Juvenile?	None visible.
376	Unidentifiable fragments	7	Poor	1	?	?	None visible.
382	Ribs	9	Moderate	5	?	Neonate	Possible articulated skeleton.
382	Tibia (shaft)	1	Moderate	5	?	Neonate	Possible articulated skeleton.
382	Skull (sphenoid x 1, right	3	Good-Moderate	5	?	Neonate x 2	Possible articulated skeleton.

	occipital x 2)						
382	Vertebrae (neural arch x 3)	3	Good-Moderate	5	?	Neonate	Possible articulated skeleton.
382	Foot (Metatarsal)	1	Moderate	5	?	Neonate	Possible articulated skeleton.
382	Femur (right)	1	Good-Moderate	5	?	Infant	None visible.
382	Humerus (distal shaft)	1	Moderate	5	?	Infant-Juvenile	None visible.
382	Rib (shaft fragment)	1	Moderate	5	?	Infant?	None visible.
382	Scapula (coracoid process fragment)	1	Good-Moderate	5	?	?	None visible.
382	Pelvis (right)	1	Good-Moderate	5	Male?	Mid Adult	None visible.
382	Pelvis (ilium fragment left)	1	Moderate-Poor	5	?	?	None visible.
382	Sacrum	1	Good	5	Female?	Adult	None visible.
382	Sacrum (fragment?)	1	Good-Moderate	5	?	?	None visible.
382	Vertebrae (cervical x 2 & thoracic x 7)	9	Good	5	?	Adult?	None visible.
382	Femur (shaft)	1	Good-Moderate	5	?	Juvenile	None visible.
382	Femur (proximal head)	1	Good-Moderate	5	?	?	None visible.
382	Fibula (shaft)	1	Good-Moderate	5	?	Adult?	None visible.

382	Hand (capitate right x 1, lunate left x 1 & trapezium right)	3	Good	5	?	?	None visible.
382	Hand (MC I right x 1, MC III right x 1 & MC IV right x 1)	2	Good-Moderate	5	?	?	None visible.
382	Foot (Metatarsal)	1	Good-Moderate	5	?	Juvenile?	None visible.
382	Hand (proximal phalanges x 2, middle phalanx x 1 & distal phalanges x 2)	5	Good	5	?	Adult?	None visible.
382	Clavicle (right)	1	Good	5	?	Adult?	None visible.
382	Ulna (shaft left)	1	Moderate	5	?	Juvenile	None visible.
382	Skull (fragment)	1	Poor	5	?	?	None visible.
382	Ribs (shaft fragments)	6	Moderate	5	?	?	None visible.
382	Ribs (shaft fragments)	3	Moderate	5	?	Juvenile	None visible.
382	Ribs (left)	7	Good-Moderate	5	?	Juvenile	None visible.
382	Ribs (left)	3	Good-Moderate	5	?	?	Healed severely broken ribs.
382	Ribs (left)	9	Good-Moderate	5	?	?	None visible.
382	Ribs (right)	16	Good-Moderate	5	?	?	None visible.
382	Skull (fragments)	8	Moderate-Poor	5	?	Infant?	None visible.
382	Pelvis (ilium left x 2)	2	Moderate	5	?	Juvenile	None visible.

382	Sacrum (fragments)	4	Moderate-Poor	5	?	?	None visible.
382	Patellae (left x 1 & right x 1)	2	Good-Moderate	5	?	?	None visible.
382	Scapula (left)	1	Moderate	5	?	Infant-Juvenile	None visible.
382	Rib (right)	1	Moderate	5	?	Infant	None visible.
382	Ribs (right x 2)	2	Moderate	5	?	?	None visible.
382	Ribs (shaft fragments)	13	Moderate-Poor	5	?	?	Copper staining.
382	Foot (Metatarsal)	1	Moderate-Poor	5	?	Infant?	None visible.
382	Foot (Medial cunieform left)	1	Moderate	5	?	?	None visible.
382	Foot (MT II left)	1	Good-Moderate	5	?	?	None visible.
382	Hand (MC I left x 1 & right x 1, MC II right x 2 & left x 1, MC III left x 1, MC IV right x 1 & MC V left x 1)	8	Good	5	?	?	None visible.
382	Hand (scaphoid left x 1, trapezium right x 1, capitate right x 1 & hamate left x 2)	5	Good	5	?	?	None visible.
382	Hand (proximal phalanges x 19, middle phalanges x 7 & distal phalanges x 4)	30	Good-Moderate	5	?	?	None visible.
382	Foot (Calcaneus right)	1	Moderate	5	?	?	None visible.

382	Clavicle (left)	1	Good-Moderate	5	?	Juvenile	None visible.
382	Vertebrae (bodies x 5)	5	Good	5	?	Infant?	None visible.
382	Vertebra (Atlas fragment)	1	Good-Moderate	5	?	Juvenile?	None visible.
382	Vertebrae (cervical x 3, thoracic x 5 & lumbar x 3)	11	Good-Moderate	5	?	Adult?	Various vertebrae exhibit osteophytic lipping on body margins and porosity on cervical bodies and Schmorl's nodes on lumbar body
382	Femur (condyle fragments)	5	Moderate	5	?	?	None visible.
382	Ulna (right)	1	Good	5	?	?	None visible.
382	Femur (left)	1	Good-Moderate	5	?	Juvenile	None visible.
382	Humerus (left)	1	Good-Moderate	5	?	Infant-Juvenile	None visible.
382	Radius (shaft)	1	Moderate-Poor	5	?	Infant-Juvenile	None visible.
382	Sternum (manubrium?)	1	Moderate	5	?	Infant?	None visible.
382	Femur (right)	1	Good-Moderate	5	?	Neonate-Infant	None visible.
382	Humerus (right)	1	Good-Moderate	5	?	Neonate-Infant	None visible.
382	Humerus (left)	1	Good	5	?	Neonate	None visible.

382	Fibula (shaft fragment)	1	Moderate	5	?	Infant?	None visible.
382	Unidentifiable fragments	4	Poor	5	?	?	None visible.
382	Scapula (right)	1	Good	5	?	Adult?	None visible.
382	Pelvis (left x 1 & right x 1)	2	Good	5	Female	Mid Adult	None visible.
382	Radii (left x 2)	2	Good-Moderate	5	?	?	None visible.
382	Tibia (shaft)	1	Moderate	5	?	?	None visible.
382	Ulna (right)	1	Good-Moderate	5	?	Adult	Copper staining.
382	Humerus (right)	1	Good	5	?	Adult?	None visible.
382	Femora (proximal head-shaft right x 1 & left x 1)	2	Good-Moderate	5	?	Adult?	None visible.
382	Femur (right)	1	Good-Moderate	5	?	Adult	None visible.
382	Sacrum	1	Good	5	Female?	Adult	None visible.
382	Sternum (sternal body segment)	1	Good	5	?	Infant-Juvenile	None visible.

382	Vertebrae (cervical x 1, thoracic x 9 & lumbar x 6)	16	Good	5	?	Adult	Severe osteophytic lipping on cervical and several thoracic vertebrae including fusion of two elements at body margins. Schmorl's nodes present on several thoracic vertebral bodies. Porosity on inferior body surface of cervical vertebra.
382	Skull (x 1)	7	Good-Moderate	5	Male	Mid-Old Adult	Copper staining.
382	Mandible	1	Good-Moderate	5	?	Mid-Old Adult	A-M tooth loss and socket resorption.
382	Skull (x 1)	18	Good-Moderate	5	?	Juvenile	Possible cribra orbitalia in both orbits.
382	Skull (x 1)	8	Good-Moderate	5	?	Infant	None visible.
382	Skull (fragment)	1	Moderate-Poor	5	?	?	None visible.
382	Mandible (left)	1	Good-Moderate	5	?	Neonate-Infant	None visible.
382	Scapula (fragment left)	1	Poor	5	?	?	None visible.
382	Hand (proximal phalanx)	1	Good	5	?	Infant	None visible.
382	Hand (phalanx)	1	Good-Moderate	5	?	Neonate	None visible.

383	Humerus (left)	1	Good	5	?	Adult	Found with skeletons [383] A & B
383	Scapula (left x2)	2	Good	5	?	Adult (x2)	Found with skeletons [383] A & B
383	Ulna (left x2)	2	Good	5	?	Adult (x2)	Found with skeletons [383] A & B
383	Clavicle (left x 3)	3	Good	5	?	Adult (x3)	Found with skeletons [383] A & B
383	Sternum (sternal body)	1	Good	5	?	Adult	Found with skeletons [383] A & B
383	Vertebrae (cervical x4)	4	Good-Moderate	5	?	Adult	Found with skeletons [383] A & B
383	Cricoid (fragments)	2	Moderate	5	?	?	Found with skeletons [383] A & B
383	Ribs (shaft fragments)	16	Moderate-Poor	5	?	?	Some healed fractures. Found with skeletons [383] A & B
383	Ribs (left x8)	8	Good-Moderate	5	?	?	Found with skeletons [383] A & B
383	Tibia (proximal condyle fragments)	2	Poor	5	?	?	Found with skeletons [383] A & B
383	Femur (proximal shaft fragments)	2	Poor	5	?	?	Found with skeletons [383] A & B
383	Scapula (fragment)	1	Poor	5	?	?	Found with skeletons [383] A & B
383	Skull (fragment)	1	Poor	5	?	?	Found with skeletons [383] A & B
383	Sternum (manubrium)	1	Good	5	?	Juvenile	Found with skeletons [383] A & B

383	Hand (Metacarpal I)	1	Good	5	?	?	Found with skeletons [383] A & B
383	Fibula (lateral malleolus)	2	Moderate-Poor	5	?	?	Found with skeletons [383] A & B
383	Humerus (x1)	1	Good-Moderate	5	?	Neonate	Found with skeletons [383] A & B
383	Femur (x1)	1	Good-Moderate	5	?	Neonate	Found with skeletons [383] A & B
383	Unidentifiable fragments	8	Poor	5	?	?	Found with skeletons [383] A & B
386	Rib (shaft)	1	Moderate	1	?	Infant	None visible.
389	Skull (fragments)	4	Moderate	2	?	Infant	None visible.
389	Rib (shaft fragment)	1	Moderate	2	?	Infant?	None visible.
389	Femur (shaft fragment)	1	Poor	2	?	?	None visible.
389	Long bone (shaft fragments)	3	Moderate-Poor	2	?	?	None visible.
389	Tibia (proximal shaft right)	1	Moderate	2	?	Juvenile	None visible.
404	Femur (right)	1	Good-Moderate	1	?	Young Adult?	Grassile individual.
404	Femur (shaft fragment)	1	Poor	1	?	?	None visible.
404	Vertebra (lumbar)	1	Moderate-Poor	1	?	?	None visible.
404	Hand (MC III left)	1	Good	1	?	?	None visible.
409	Long bone (fragments)	5	Moderate-Poor	3	?	?	None visible.

409	Skull (fragments)	2	Moderate	3	?	?	None visible.
409	Scapula (fragments left)	2	Moderate	3	?	?	None visible.
409	Ribs (shaft fragments)	3	Poor	3	?	?	None visible.
409	Rib (rib head fragment)	1	Moderate-Poor	3	?	?	None visible.
409	Ribs (left)	2	Good-Moderate	3	?	?	None visible.
409	Pelvis (pubis fragment right)	1	Moderate-Poor	3	?	Young Adult?	None visible.
409	Skull (fragments)	2	Moderate-Poor	3	?	Juvenile?	None visible.
409	Dentition (incisors x 2, canine x 1 & pre-molar x 1)	4	Good	3	?	?	None visible.
409	Hand (MC I left)	1	Good-Moderate	3	?	?	None visible.
409	Foot (MT I)	1	Good-Moderate	3	?	Infant?	None visible.
409	Humerus (proximal shaft-midshaft)	1	Moderate-Poor	3	?	?	None visible.
409	Hand (proximal phalanges)	2	Poor	3	?	?	None visible.
409	Hand (hamate left x 1, capitate left x 1, trapezium left x 1)	3	Good-Moderate	3	?	?	None visible.
409	Foot (MT III right)	1	Moderate	3	?	?	None visible.
413	Humerus (proximal head)	1	Good	1	?	Infant	None visible.

414	Fibula (right)	1	Good	2	?	?	None visible.
414	Ulna (proximal head-shaft right x 1)	1	Good-Moderate	2	?	?	None visible.
414	Hand (MC III right)	1	Good	2	?	?	None visible.
414	Ulna (proximal head-shaft left x 1)	1	Good-Moderate	2	?	Infant	None visible.
414	Femur (proximal shaft)	1	Moderate	2	?	Infant	None visible.
414	Ribs (shaft fragments)	9	Moderate-Poor	2	?	?	None visible.
414	Ribs (left x 2 & right x 1)	3	Moderate	2	?	?	Copper staining on both left ribs. Osteophytic lipping around rib head articular facet on right rib.
419	Long bone (fragments)	5	Poor	2	?	?	None visible.
419	Scapula (acromion fragment)	1	Moderate-Poor	2	?	?	None visible.
419	Femur (right)	1	Moderate	2	?	Infant	None visible.
419	Hand (trapezium left x 1 & right x 1 & hamate right x 1)	3	Good-Moderate	2	?	?	None visible.
419	Hand (proximal phalanx x 1, middle phalanges x 2 & distal phalanx x 1)	4	Good	2	?	?	None visible.
419	Hand (MC I left x 1, MC II right x 1, MC III right x 1, MC IV right x 1)	5	Good-Moderate	2	?	?	None visible.

	1 & MC V right x 1)						
419	Ulna (proximal head-proximal shaft right)	1	Good-Moderate	2	?	?	None visible.
419	Ribs (shaft fragments)	9	Moderate-Poor	2	?	?	None visible.
419	Ribs (right)	2	Moderate	2	?	?	None visible.
419	Rib (rib head fragments)	2	Poor	2	?	?	None visible.
419	Sternum (fragment)	1	Moderate-Poor	2	?	?	None visible.
419	Vertebrae (lumbar x 3)	1	Good	2	?	?	Osteophytic lipping on body margin of a single vertebra.
419	Vertebra (thoracic)	1	Good-Moderate	2	?	?	Slight osteophtic lipping on body margin.
419	Vertebra (Cervical)	1	Moderate	2	?	?	None visible.
419	Vertebra (neural arch fragment)	1	Moderate-Poor	2	?	?	None visible.
423	Radius (shaft-distal end left)	1	Moderate	2	?	?	None visible.
423	Ribs (shaft fragments)	3	Moderate-Poor	2	?	?	None visible.
423	Pelvis (pubis fragment)	1	Moderate-Poor	2	?	?	None visible.
423	Skull (frontal fragment)	1	Moderate-Poor	2	?	?	None visible.
423	Vertebra (thoracic)	1	Moderate	2	?	?	Schmorl's nodes.

423	Hand (proximal phalanx x 1 & middle phalanx x 1)	2	Good-Moderate	2	?	?	None visible.
423	Femora (left x 1 & right x 1)	2	Good-Moderate	2	?	Infant	None visible.
427	Skull (fragments)	2	Good-Moderate	2	?	?	None visible.
427	Foot (Talus right)	1	Good-Moderate	2	?	?	None visible.
427	Vertebra (thoracic)	1	Good-Moderate	2	?	?	None visible.
427	Long bone (fragment)	1	Moderate-Poor	2	?	?	None visible.
428	Foot (MT1)	1	Good-Moderate	1	?	Juvenile	Found with skeleton [428]
431	Ulna (proximal head-shaft left x 1)	1	Good-Moderate	1	?	?	Soft tissue ossification on proximal head.
431	Pelvis (ilium fragment)	1	Moderate-Poor	1	?	?	None visible.
431	Foot (proximal phalanx)	1	Moderate	1	?	?	None visible.
431	Rib (rib head right x 1)	1	Moderate-Poor	1	?	?	None visible.
431	Rib (left)	1	Good-Moderate	1	?	?	None visible.
434	Hand (proximal phalanges x 5, middle phalanges x 3 & distal phalanx x 1)	9	Good-Moderate	1	?	?	None visible.
434	Fibula (shaft-distal end right)	1	Good-Moderate	1	?	?	None visible.
434	Femur (distal condyles)	1	Moderate-Poor	1	?	?	None visible.

	fragment)						
434	Scapula (fragment)	1	Moderate-Poor	1	?	?	None visible.
434	Foot (proximal phalanx)	1	Good-Moderate	1	?	?	None visible.
434	Unidentifiable fragment	1	Poor	1	?	?	None visible.
434	Foot (lateral cunieform left)	1	Good-Moderate	1	?	?	None visible.
434	Foot (MT I right x 1, MT II right x 1, MT V unsided x 1)	3	Moderate	1	?	?	Possible OA on MT I distal head.
434	Hand (metacarpal shafts)	2	Moderate-Poor	1	?	?	None visible.
434	Hand (MC III right)	1	Good	1	?	?	None visible.
446	Femur (proximal shaft-midshaft left)	1	Moderate	3	?	Infant?	None visible.
446	Rib (shaft fragment)	1	Moderate	3	?	Infant?	None visible.
446	Dentition (incisor)	1	Good-Moderate	3	?	?	None visible.
446	Skull (fragments)	2	Moderate-Poor	3	?	?	None visible.
446	Scapula (fragment)	1	Poor	3	?	?	None visible.
446	Vertebrae (neural arch fragments)	2	Poor	3	?	?	None visible.
446	Vertebrae (thoracic x 1 & lumbar x 1)	2	Moderate-Poor	3	?	?	Schmorl's nodes on lumbar body.

446	Foot (MT III right)	1	Good	3	?	?	None visible.
446	Foot (MT III right)	1	Good-Moderate	3	?	Juvenile	None visible.
446	Ulna (right)	1	Good-Moderate	3	?	Adult?	Copper staining.
446	Vertebra (thoracic)	1	Good-Moderate	3	?	?	None visible.
446	Ribs (shaft fragments)	3	Moderate-Poor	3	?	?	None visible.
446	Hand (distal phalanx)	1	Good	3	?	?	None visible.
446	Tibia (proximal head)	1	Moderate-Poor	3	?	?	None visible.
446	Sternum (manubrium)	1	Good	3	?	?	None visible.
446	Foot (talus right)	1	Moderate-Poor	3	?	?	None visible.
446	Skull (fragment)	1	Moderate-Poor	3	?	Juvenile	None visible.
447	Humerus	1	Good-Moderate	1	?	Infant	None visible.
447	Ulna	1	Good-Moderate	1	?	Infant	None visible.
456	Vertebra (C6 x 1)	1	Good-Moderate	1	?	Adult?	Found with skeleton [456]. Osteophytic lipping around margins of body.
456	Vertebra (thoracic neural arch?)	1	Moderate-Poor	1	?	?	Found with skeleton [456]
456	Tooth (molar)	1	Good	1	?	Adult	Found with skeleton [456]
461	Skull (temporal right)	1	Good-Moderate	2	?	?	None visible.

461	Ribs (shaft fragments)	5	Moderate-Poor	2	?	?	None visible.
461	Sacrum (S1-S3 & fragment)	2	Moderate-Poor	2	?	?	None visible.
461	Vertebrae (Atlas, thoracic x 1 & lumbar x 1)	3	Moderate	2	?	?	Osteophytic lipping around thoracic vertebra body.
461	Pelvis (pubis fragments)	1	Poor	2	?	?	None visible.
461	Fibula (shaft fragments)	1	Moderate-Poor	2	?	?	None visible.
461	Ulna (shaft fragment)	1	Poor	2	?	?	None visible.
461	Clavicae (left x 2)	2	Good-Moderate	2	?	?	Slight osteophytic lipping and porosity on the sternal end of a single clavicle.
461	Hand (MC II right x 1 & MC III left x 1)	2	Good-Moderate	2	?	?	None visible.
461	Ulna (proximal head-midshaft right)	1	Good-Moderate	2	?	?	None visible.
461	Humerus (shaft fragments)	2	Moderate-Poor	2	?	?	None visible.
461	Talus (left)	1	Good	2	?	?	None visible.
461	Ribs (shaft fragments)	2	Moderate	2	?	?	None visible.
461	Vertebra (Cervical)	1	Moderate	2	?	?	None visible.
461	Foot (MT I right x 1, MT III left x 1 & MT V right x 1)	3	Good-Moderate	2	?	?	None visible.

464	Foot (talus left)	1	Good-Moderate	1	?	?	None visible.
464	Hand (shaft fragment)	1	Poor	1	?	?	None visible.
464	Scapula (fragments)	2	Poor	1	?	?	None visible.
464	Ribs (shaft fragments)	3	Moderate-Poor	1	?	?	None visible.
464	Rib (right)	1	Moderate	1	?	?	None visible.
464	Rib (rib head fragment)	1	Moderate-Poor	1	?	?	None visible.
464	Dentition (incisor x 1, canine x 1 & molar x 1)	3	Good	1	?	?	None visible.
471	Hand (MC I left x 1, MC III left x 1 & MC IV right x 1)	3	Good-Moderate	6	?	?	None visible.
471	Foot (MT IV right)	1	Moderate	6	?	?	None visible.
471	Clavicle (left)	1	Good-Moderate	6	?	?	None visible.
471	Rib (left)	1	Moderate	6	?	?	None visible.
471	Rib (right)	1	Moderate	6	?	Infant?	None visible.
471	Sacrum (fragment)	1	Moderate-Poor	6	?	?	None visible.
471	Ulna (proximal head-midshaft)	1	Moderate	6	?	Adult?	None visible.
471	Femur (proximal head-midshaft left x 1)	1	Good-Moderate	6	?	Adult?	None visible.

471	Femur (shaft)	1	Moderate	6	?	?	None visible.
471	Femur (condyle fragment)	1	Moderate-Poor	6	?	?	None visible.
471	Ulna (shaft fragment)	1	Poor	6	?	?	None visible.
471	Femur (proximal head-proximal shaft right)	1	Moderate	6	?	Juvenile	None visible.
471	Femur (midshaft-distal shaft)	1	Good-Moderate	6	?	Juvenile	None visible.
471	Femur (mid shaft-distal shaft)	1	Moderate	6	?	Infant?	None visible.
471	Pelvis (right)	1	Moderate-Poor	6	?	Young-Mid Adult	None visible.
471	Vertebra (body)	1	Good-Moderate	6	?	Infant?	None visible.
471	Vertebrae (cervical x 1 & lumbar x 1)	3	Good-Moderate	6	?	Adult?	Post-mortem dissection of lumbar vertebra. Osteophytic lipping on margins of cervical body.
471	Foot (Calcaneus right)	1	Moderate-Poor	6	?	?	None visible.
471	Long bone (shaft fragment)	1	Moderate-Poor	6	?	?	None visible.
471	Claviculae (left x 1 & right x 1)	2	Moderate	6	?	Adult?	Post-mortem dissection of both claviculae.
471	Vertebrae (cervical x 6)	7	Good-Moderate	6	?	?	None visible.
471	Humerus (proximal head-midshaft left)	1	Good-Moderate	6	?	Adult	Post-mortem dissection.

471	Rib (shaft fragment)	1	Moderate-Poor	6	?	Adult?	None visible.
471	Foot (MT III right x 1 & MT V x 1)	2	Good-Moderate	6	?	?	None visible.
471	Foot (proximal phalanges x 3)	3	Good-Moderate	6	?	?	None visible.
471	Hand (Scaphoid right x 1 & Capitate right x 1)	2	Good	6	?	?	None visible.
471	Hand (proximal phalanges x 4)	4	Good-Moderate	6	?	?	None visible.
471	Femur (shaft fragment)	1	Moderate-Poor	6	?	Adult?	Robust individual.
471	Fibulae (shaft-distal end right x 1 & shaft fragment x 1)	3	Moderate	6	?	Adolescent-Young Adult	None visible.
471	Scapula (right)	1	Moderate-Poor	6	?	?	None visible.
471	Tibia (proximal head fragment)	1	Moderate-Poor	6	?	?	None visible.
471	Radius (right)	1	Good-Moderate	6	?	Adult?	None visible.
471	Radius (shaft left)	1	Moderate	6	?	?	None visible.
471	Rib (shaft fragment)	1	Good-Moderate	6	?	Juvenile	None visible.
471	Ribs (shaft fragments)	3	Moderate	6	?	?	None visible.
471	Pelvis (ischium fragment x 1 & pubis right x 1)	2	Moderate-Poor	6	?	?	None visible.
471	Clavicle (left)	1	Good	6	?	Juvenile	None visible.

471	Humerus (left?)	1	Moderate	6	?	Juvenile	None visible.
471	Foot (MT I shaft)	1	Good-Moderate	6	?	Infant-Juvenile	None visible.
471	Hand (proximal phalanx)	1	Moderate	6	?	?	None visible.
471	Skull (fragments)	2	Moderate	6	?	Juvenile	None visible.
471	Mandible (x 1)	2	Good-Moderate	6	?	?	A-M tooth loss and socket resorption. Caries. Possible abscess.
471	Mandible (Ramus fragment right)	1	Moderate	6	?	?	None visible.
471	Fibula (shaft x 1)	2	Moderate-Poor	6	?	?	None visible.
471	Fibula (shaft-distal end right)	1	Moderate	6	?	?	None visible.
471	Fibula (distal shaft-distal end right)	1	Moderate	6	?	?	None visible.
471	Radius (left x 1)	2	Good-Moderate	6	?	?	None visible.
471	Hand (proximal phalanx)	1	Good	6	?	?	None visible.
471	Vertebra (T1)	1	Good-Moderate	6	?	?	None visible.
471	Pelvis (ilium fragments left)	2	Moderate-Poor	6	?	?	None visible.
471	Skull (occipital x 1 & fragments)	16	Moderate-Poor	6	?	?	None visible.
471	Skull (fragments)	2	Moderate-Poor	6	?	Infant?	None visible.

471	Dentition (incisor, pre-molar & molar)	3	Good	6	?	?	None visible.
471	Foot (Calcaneus left x 1, calcaneus right x 1, talus left x 1 & medial cunieform right x 1)	4	Moderate	6	?	?	None visible.
471	Fibula (distal shaft-distal end left)	1	Good-Moderate	6	?	?	None visible.
471	Fibula (proximal head-proximal shaft left)	1	Moderate	6	?	?	None visible.
471	Radius (distal fragment right)	1	Moderate-Poor	6	?	?	None visible.
471	Ulna (proximal shaft fragment)	1	Moderate-Poor	6	?	?	None visible.
471	Humerus (midshaft-distal epicondyles right)	1	Good-Moderate	6	?	?	None visible.
471	Sacrum (S1 & S4/S5)	2	Good-Moderate	6	?	Juvenile	None visible.
471	Sacrum (S1 fragment)	1	Good-Moderate	6	?	Infant	None visible.
471	Sternum (manubrium)	1	Good-Moderate	6	?	?	None visible.
471	Scapula (Acromion right)	1	Moderate	6	?	Adult?	Severe OA which is highly indicative of dislocation.
471	Scapula (right)	1	Moderate-Poor	6	?	Infant?	None visible.
471	Pelvis (ilium and acetabulum fragment)	1	Moderate	6	?	Adult?	Severe porosity and remodelling of visible remnant of acetabulum.

471	Pelvis (ilium right x 1 & ischium left x 1)	2	Good-Moderate	6	?	Infant	None visible.
471	Tibiae (proximal head fragments)	2	Moderate-Poor	6	?	?	None visible.
471	Tibiae (distal ends left x 1 & right x 1)	2	Moderate-Poor	6	?	?	None visible.
471	Tibia (distal end fragment)	1	Poor	6	?	?	None visible.
471	Tibia (proximal shaft-midshaft right)	1	Moderate	6	?	Infant	None visible.
471	Tibia (proximal head epiphysis & distal end epiphysis)	1	Good-Moderate	6	?	Juvenile	None visible.
471	Ribs (shaft fragments)	20	Moderate-Poor	6	?	?	None visible.
471	Ribs (ribs heads right)	3	Moderate-Poor	6	?	?	None visible.
471	Ribs (left)	4	Moderate-Poor	6	?	?	None visible.
471	Ribs (right)	4	Moderate	6	?	?	None visible.
471	Foot (Metatarsal shafts)	2	Moderate-Poor	6	?	?	None visible.
471	Foot (MT I left x 1, MT III right x 1 & MT IV right x 1)	3	Moderate	6	?	Adolescent?	None visible.
471	Hand (MT II & trapezoid right)	1	Good-Moderate	6	?	?	Elements are fused together.
471	Hand (MC III left x 1 & MC V left)	3	Good-Moderate	6	?	?	None visible.

	x 1 & right x 1)						
471	Hand (proximal phalanges x 3)	3	Good-Moderate	6	?	?	None visible.
471	Foot (proximal phalanges x 2)	2	Good	6	?	?	None visible.
471	Vertebrae (neural arch fragments)	6	Moderate-Poor	6	?	?	None visible.
471	Vertebrae (bodies x 4)	4	Moderate-Poor	6	?	?	Schmorl's nodes on two bodies.
471	Vertebra (lumbar)	1	Good-Moderate	6	?	Juvenile	None visible.
471	Vertebrae (Atlas x 1, Axis x 2 & cervical neural arch fragment)	5	Good-Moderate	6	?	?	Osteophytic lipping around the margins of superior articular facet on cervical neural arch fragment.
471	Vertebrae (thoracic x 6 & lumbar x 3)	9	Moderate	6	?	?	None visible.
471	Long bone (fragments)	30	Poor	6	?	?	None visible.
471	Scapula (fragment left)	1	Moderate-Poor	6	?	?	None visible.
471	Pelvis (pubis fragment)	1	Poor	6	?	?	None visible.
471	Foot (talus left)	1	Moderate	6	?	?	None visible.
471	Skull (fragment)	1	Poor	6	?	?	None visible.
471	Skull (fragments)	2	Moderate-Poor	6	?	Juvenile?	None visible.

471	Clavicle (left)	1	Moderate-Poor	6	?	?	None visible.
471	Foot (Metatarsal shafts)	4	Poor	6	?	?	None visible.
471	Foot (MT I right x 2, MT III right x 2 & left x 2 & MT IV left x 1)	7	Moderate	6	?	?	None visible.
471	Foot (metatarsal shaft)	1	Moderate-Poor	6	?	Infant?	None visible.
471	Hand (proximal phalanges x 5)	5	Good-Moderate	6	?	?	None visible.
471	Vertebrae (neural fragments)	3	Moderate-Poor	6	?	?	None visible.
471	Vertebrae (cervical x 1 & thoracic x 2)	3	Moderate	6	?	?	None visible.
471	Vertebrae (cervical x 1 & thoracic body x 1)	2	Moderate	6	?	Juvenile?	None visible.
471	Ribs (left x 4 & right x 4)	8	Moderate-Poor	6	?	?	None visible.
471	Ribs (shaft fragments)	11	Moderate-Poor	6	?	?	None visible.
471	Rib (shaft fragment)	1	Moderate	6	?	?	Healed fracture
471	Fibula (shaft fragment)	1	Moderate-Poor	6	?	?	None visible.
471	Fibula (shaft)	1	Good-Moderate	6	?	Infant-Juvenile	None visible.
471	Long bone (fragments)	8	Poor	6	?	?	None visible.
471	Radii (shaft fragments)	2	Moderate-Poor	6	?	?	None visible.

471	Radii (midshaft-distal end right & distal shaft-distal end right)	2	Moderate	6	?	?	None visible.
471	Tibia (shaft left)	1	Moderate-Poor	6	?	?	None visible.
471	Tibia (distal end)	1	Moderate	6	?	?	Lamellar bone/ periostitis?
471	Tibia (proximal shaft-midshaft)	1	Good-Moderate	6	?	Infant	None visible.
471	Femur (left x 1 & right x 1)	2	Good-Moderate	6	?	Juvenile	None visible.
471	Femur (midshaft-distal condyles x 1)	2	Moderate	6	?	Adult?	None visible.
471	Humerus (shaft)	1	Good-Moderate	6	?	Neonate?	None visible.
471	Humerus (shafts)	2	Good-Moderate	6	?	?	Copper staining on one shaft.
471	Humerus (shaft)	1	Moderate	6	?	Juvenile?	None visible.
471	Humerus (left x 1)	2	Good-Moderate	6	?	?	None visible.
471	Ulnae (proximal head-midshaft left x 2)	2	Moderate	6	?	Adult?	None visible.
471	Ulnae (proximal head-midshaft left x 2 & right x 1)	3	Moderate	6	?	Juvenile?	None visible.
471	Ulna (proximal head-midshaft left x 1)	1	Good-Moderate	6	?	Neonate	None visible.
471	Tibia (shaft fragment)	1	Moderate	6	?	Adult?	Copper staining.

471	Humerus (shaft)	1	Good-Moderate	6	?	Adult?	None visible.
471	Scapula (right x 1)	2	Good	6	?	Adult	Post-mortem dissection - acromion.
471	Rib (shaft fragment)	1	Moderate	6	?	?	None visible.
471	Mandible (left)	1	Moderate	6	?	Adult?	None visible.
475	Ribs (shaft fragments)	2	Moderate-Poor	4	?	?	None visible.
475	Skull (fragments)	8	Moderate-Poor	4	?	Neonate- Infant	None visible.
475	Mandible (fragments)	2	Moderate-Poor	4	?	Neonate- Infant	None visible.
475	Vertebra (neural arch)	1	Moderate	4	?	Infant	None visible.
475	Humerus (left x 1 & right x 1)	2	Moderate	4	?	Neonate- Infant	None visible.
475	Ulna (right)	1	Moderate	4	?	Neonate- Infant	None visible.
475	Ribs (shaft fragments)	2	Moderate-Poor	4	?	Neonate- Infant	None visible.
475	Ribs (right)	2	Good-Moderate	4	?	Neonate- Infant	None visible.
475	Ribs (left)	4	Good-Moderate	4	?	Neonate- Infant	None visible.

475	Long bone (fragments)	5	Poor	4	?	?	None visible.
475	Ribs (shaft fragments)	3	Moderate-Poor	4	?	?	Copper staining.
475	Dentition (canine?)	1	Good-Moderate	4	?	Adult?	None visible.
475	Femur (proxima shaft-midshaft right)	1	Good-Moderate	4	?	Juvenile?	None visible.
475	Ulnae (proximal head-distal shaft left x 1 & right x 1)	2	Good-Moderate	4	?	Adult?	None visible.
475	Foot (Cuboid left x 1, intermediate cunieform right x 1 & lateral cunieform right x 1)	3	Good	4	?	?	None visible.
475	Foot (MT I left x 1, MT II right x 1 & MT V left x 1)	3	Moderate	4	?	?	None visible.
475	Hand (MC II left x 1 & right x 1)	2	Moderate	4	?	?	None visible.
475	Hand (lunate right, trapezium right & triquetral left x 1)	3	Good	4	?	?	None visible.
475	Hand (proximal phalanges x 4 & middle phalanx x 1)	5	Good-Moderate	4	?	?	None visible.
475	Foot (proximal phalanges x 2, middle phalanx x 1, distal phalanx x 1)	4	Good-Moderate	4	?	?	None visible.
475	Skull (fragments)	3	Moderate-Poor	4	?	?	None visible.

475	Pelvis (left x 2)	2	Moderate	4	Male? x 2	Adult x 2	None visible.
475	Pelvis (ischium left x 1)	1	Moderate	4	?	?	None visible.
475	Pelvis (fragments)	3	Moderate-Poor	4	?	?	None visible.
483	Hand (lunate left)	1	Good-Moderate	1	?	?	None visible.
485	Vertebrae (C1-C7 & L1-L5)	12	Good-Moderate	1	?	Adult	None visible.
485	Vertebrae (thoracic body x 1 & neural arches x 8)	9	Moderate	1	?	Adult?	None visible.
485	Hyoid (x 1)	2	Good-Moderate	1	?	?	None visible.
487	Scapula (acromion fragment)	1	Moderate-Poor	1	?	?	None visible.
493	Skull (fragments)	14	Moderate	5	?	?	None visible.
493	Dentition (molar)	1	Good	5	?	?	None visible.
493	Skull (fragments)	22	Good-Moderate	5	?	Infant?	None visible.
493	Mandible (left)	1	Good-Moderate	5	?	Infant	None visible.
493	Rib (left)	1	Moderate	5	?	?	None visible.
493	Ribs (shaft fragments)	2	Moderate-Poor	5	?	?	None visible.
493	Ribs (shaft fragments)	3	Moderate	5	?	Juvenile?	None visible.
493	Ribs (left)	2	Good	5	?	Infant	None visible.

493	Vertebra (neural arch right x 1 & left x 1 & body x 1)	1	Moderate	5	?	Neonate	None visible.
493	Vertebrae (lumbar neural arch x 1 & thoracic neural arch x 1)	2	Moderate	5	?	Adult?	None visible.
493	Vertebrae (atlas x 1, thoracic x 1 & thoracic body)	3	Good-Moderate	5	?	Adult?	None visible.
493	Sternum (sternal body fragment)	1	Moderate-Poor	5	?	?	None visible.
493	Foot (Calcaneus left fragment)	1	Moderate-Poor	5	?	?	None visible.
493	Foot (talus right x 1 & left x 1)	2	Good-Moderate	5	?	Adult?	None visible.
493	Claviculae (shaft left x 1 & right x 1)	2	Moderate	5	?	?	None visible.
493	Radius (right)	1	Good-Moderate	5	?	Adult?	Copper staining.
493	Humerus (shaft-distal epicondyles left x 1)	1	Good-Moderate	5	?	?	None visible.
493	Humerus (proximal head)	1	Moderate	5	?	?	None visible.
493	Tibia (shaft)	1	Moderate	5	?	?	None visible.
493	Tibia (distal end fragment)	1	Moderate-Poor	5	?	?	None visible.
493	Ulna (shaft fragment)	1	Poor	5	?	?	None visible.
493	Femur (Distal condyles)	1	Moderate	5	?	?	None visible.

493	Fibulae (x 2)	2	Moderate	5	?	Infant	None visible.
493	Tibia	1	Good-Moderate	5	?	Infant	None visible.
493	Humerus (left)	1	Good	5	?	Infant	None visible.
493	Ulnae (proximal head-shaft left x 2)	2	Good-Moderate	5	?	Infant	None visible.
493	Femur (shaft fragment & midshaft-distal shaft)	2	Moderate-Poor	5	?	Infant	None visible.
493	Femur (proximal shaft left)	1	Good-Moderate	5	?	Juvenile	None visible.
493	Sacrum (fragments)	3	Moderate-Poor	5	?	?	None visible.
493	Foot (MT I left)	1	Moderate	5	?	?	None visible.
493	Foot (proximal phalanges x 2 & middle phalanx x 1)	3	Good	5	?	?	None visible.
493	Vertebra (body fragment)	1	Poor	5	?	?	None visible.
493	Femur (fragment)	1	Poor	5	?	?	None visible.
493	Unidentifiable fragments	5	Poor	5	?	?	None visible.
493	Hand (MT II left x 1 & right x 1, MT III left x 1 & right x 1, MT IV left x 2, MT V right x 2)	8	Good-Moderate	5	?	?	None visible.
493	Hand (metacarpals x 2)	2	Moderate	5	?	?	None visible.

493	Foot (MT III left x 1, MT IV right x 1 & MT V left x 2)	4	Moderate	5	?	?	None visible.
493	Hand (Metacarpal shaft)	1	Moderate	5	?	Infant?	None visible.
493	Foot (Metatarsal)	1	Good-Moderate	5	?	Infant	None visible.
493	Foot (proximal phalanx x 1 & middle phalanx x 1)	1	Good-Moderate	5	?	?	None visible.
493	Skull (fragment)	1	Poor	5	?	?	None visible.
493	Ribs (shaft fragments)	12	Moderate	5	?	?	None visible.
493	Ribs (right x 2 & left x 1)	3	Moderate	5	?	?	None visible.
493	Clavicle (right)	1	Good-Moderate	5	?	?	None visible.
493	Clavicle (shaft)	1	Moderate-Poor	5	?	Juvenile	None visible.
493	Tibiae (shafts)	3	Moderate-Poor	5	?	Adult?	Copper staining.
493	Tibiae (shaft-distal end left x 1 & right x 2)	3	Moderate-Poor	5	?	Adult?	Copper staining.
493	Fibulae (shaft fragments)	6	Moderate-Poor	5	?	?	Copper staining.
493	Fibulae (left x 1 & right x 3)	4	Moderate	5	?	Adult?	Copper staining.
493	Femur (shafts)	3	Moderate	5	?	Adult?	None visible.
493	Femur (proximal shaft fragment)	1	Moderate-Poor	5	?	?	None visible.

493	Humerus (shaft)	1	Moderate-Poor	5	?	Infant?	Copper staining.
493	Femur (shaft)	1	Moderate-Poor	5	?	Infant	None visible.
493	Radii (shaft fragments)	2	Poor	5	?	?	None visible.
493	Radii (shafts)	2	Moderate	5	?	?	None visible.
493	Radius (right)	1	Good-Moderate	5	?	Adult?	None visible.
493	Radius (left)	1	Good-Moderate	5	?	Juvenile	None visible.
493	Ulna (shafts)	3	Moderate-Poor	5	?	?	None visible.
493	Ulnae (proximal head-shaft right x 2)	2	Good-Moderate	5	?	Adult?	None visible.
493	Ulna (proximal head left)	1	Good-Moderate	5	?	Adult?	None visible.
493	Humerii (shaft-distal epicondyles right x 2)	2	Good-Moderate	5	?	Adult	None visible.
493	Humerus (shaft fragments)	3	Moderate-Poor	5	?	?	None visible.
493	Long bone (shaft fragments)	9	Poor	5	?	?	None visible.
493	Unidentifiable fragments	4	Poor	5	?	?	None visible.
493	Skull (parietals x 4, occipital x 2 & temporals right x 2)	8	Good-Moderate	5	?	Adult	Copper staining on a single parietal and a single occipital.
493	Skull (fragments)	17	Moderate	5	?	?	None visible.

493	Skull (fragment)	1	Moderate-Poor	5	?	Juvenile?	None visible.
493	Mandible (x 2)	2	Good-Moderate	5	?	Mid-Old Adult x 2	A-M tooth loss and socket resorption.
493	Vertebra (lumbar)	1	Good-Moderate	5	?	Juvenile	None visible.
493	Vertebrae (cervical x 2, thoracic x 4 & lumbar x 1)	7	Good-Moderate	5	?	?	Copper staining, Schmorl's nodes and osteophytic lipping on a single thoracic vertebra. Slight osteophytic lipping on the body margins of a single vertebra and a further thoracic vertebra.
493	Vertebrae (neural arch fragments x 2, body x 1 & body fragment x 1)	4	Moderate-Poor	5	?	?	None visible.
493	Sacrae (fragments)	3	Moderate-Poor	5	?	?	None visible.
493	Scapula (left)	1	Moderate-Poor	5	?	Adult?	None visible.
493	Scapula (right)	1	Moderate	5	?	Juvenile?	None visible.
493	Scapula (fragments)	2	Poor	5	?	?	None visible.
493	Pelvis (ilium right x 1 & left x 1)	2	Moderate	5	?	Mid Adult	None visible.
493	Pelvis (ischium right x 2 & left x 1)	3	Moderate	5	?	Adult?	None visible.
493	Pelvis (pubis)	2	Moderate-Poor	5	?	?	None visible.

493	Ribs (shaft fragments)	5	Moderate-Poor	5	?	?	None visible.
493	Rib (right)	1	Good-Moderate	5	?	Infant	None visible.
493	Femur (distal condyles)	1	Moderate-Poor	5	?	?	None visible.
493	Radius (distal end fragment)	1	Poor	5	?	?	None visible.
493	Femur (distal shaft)	1	Moderate-Poor	5	?	Juvenile?	None visible.
493	Foot (Calcaneus right)	1	Good-Moderate	5	?	?	None visible.
493	Foot (Talus right)	1	Good-Moderate	5	?	?	None visible.
493	Hand (metacarpal)	1	Good-Moderate	5	?	?	None visible.
493	Foot (proximal phalanges)	2	Good-Moderate	5	?	?	None visible.
493	Pelvis (ilium fragment)	1	Poor	5	?	?	None visible.
493	Rib (rib head fragment)	1	Moderate-Poor	5	?	?	None visible.
493	Long bone (shaft fragments)	9	Poor	5	?	?	None visible.
493	Unidentifiable fragments	7	Poor	5	?	?	None visible.
500	Foot (Calcaneii left and right)	2	Good-Moderate	1	?	Infant	None visible.
500	Foot (Metatarsal)	1	Good-Moderate	1	?	Infant	None visible.
500	Ulna (right)	1	Good	1	?	Infant	None visible.
508	Skull (fragment)	1	Moderate-Poor	1	?	?	None visible.

520	Humerus (shaft)	1	Moderate-Poor	1	?	?	Found with skeleton [520]
529	Skull (fragment)	1	Moderate-Poor	1	?	?	None visible.
529	Scapula (fragment)	1	Poor	1	?	?	None visible.
529	Unidentifiable fragments	3	Poor	1	?	?	None visible.
540	Skull (fragment)	1	Good-Moderate	1	?	?	None visible.
551	Vetebrae (C3-C7 & T4?)	6	Good	4	?	?	Osteophytic lipping and porosity of vertebral bodies of C4 and C5. Associated with skeletons [825] and [826].
551	Humerus (left)	1	Good	4	?	Adult	Associated with skeletons [825] and [826].
551	Radius (left)	1	Good	4	?	Adult	Associated with skeletons [825] and [826].
551	Scapula (left)	1	Good-Moderate	4	?	Adult?	Associated with skeletons [825] and [826].
551	Skull (fragments)	4	Moderate-Poor	4	?	Adult?	Associated with skeletons [825] and [826]. Cut marks on one fragment.

551	Mandible (fragments)	5	Moderate-Poor	4	?	?	Associated with skeletons [825] and [826]. Post-mortem dissection of 3x rami fragments.
551	Rib (fragments)	2	Moderate-Poor	4	?	?	Associated with skeletons [825] and [826].
551	Ulna (shaft)	1	Poor	4	?	Adult?	Associated with skeletons [825] and [826].
551	Clavicle (right)	1	Moderate-Poor	4	?	Juvenile	Associated with skeletons [825] and [826].
551	Metarsals (x3)	3	Moderate	4	?	?	Associated with skeletons [825] and [826].
551	Metacarpal	1	Moderate	4	?	Juvenile?	Associated with skeletons [825] and [826].
551	Femur (shaft)	1	Moderate	4	?	Juvenile	Associated with skeletons [825] and [826].
551	Humerus (proximal shaft)	1	Moderate-Poor	4	?	Juvenile	Associated with skeletons [825] and [826].
551	Humerus (mid-distal shaft)	1	Moderate	4	?	Infant	Associated with skeletons [825] and [826].

551	Unidentifiable fragments	2	Poor	4	?	?	Associated with skeletons [825] and [826].
551	Long bone (shaft fragments)	2	Poor	4	?	?	None visible.
551	Unidentified fragments	3	Poor	4	?	?	None visible.
551	Rib (left)	1	Moderate	4	?	Infant?	None visible.
551	Rib (left)	1	Good-Moderate	4	?	?	None visible.
551	Rib (shaft fragments)	5	Moderate-Poor	4	?	?	None visible.
551	Foot (MT I left x 1 & MT V left x 1)	2	Moderate	4	?	?	None visible.
551	Foot (proximal phalanx)	1	Good-Moderate	4	?	?	None visible.
551	Hand (MC V right)	1	Good-Moderate	4	?	?	None visible.
551	Hand (proximal phalanges x 2 & middle phalanx x 1)	3	Good	4	?	?	None visible.
551	Femur (shaft)	1	Moderate	4	?	Adult?	None visible.
551	Femur (distal shaft)	1	Moderate	4	?	Adult?	None visible.
551	Radius (left)	1	Good-Moderate	4	?	Adult?	None visible.
551	Tibia (right)	1	Good-Moderate	4	?	Adult?	None visible.
551	Tibia (shaft)	1	Moderate-Poor	4	?	Juvenile?	None visible.

552	Sternum (sternal body)	1	Moderate	1	?	Adult	Soft tissue ossification around rib facets. Found with skeleton [552]
571	Hand (Metacarpal V)	1	Moderate	1	?	?	None visible.
571	Foot (right cuboid x 1)	1	Moderate	1	?	?	None visible.
574	Pelvis (ilium fragment)	1	Moderate-Poor	4	?	?	None visible.
574	Tibia (shaft fragment)	1	Poor	4	?	Infant?	None visible.
574	Femur (distal shaft)	1	Moderate	4	?	Neonate-Infant	None visible.
574	Skull (fragment)	1	Moderate	4	?	?	None visible.
574	Mandible (left x 1 & right x 1)	2	Moderate	4	?	Adult	A-M tooth loss and socket resorption.
574	Skull (temporal)	1	Good-Moderate	4	?	?	None visible.
574	Scapula (fragments)	1	Moderate-Poor	4	?	?	None visible.
574	Skull (fragments)	2	Moderate	4	?	Juvenile	None visible.
574	Rib (shaft fragment)	1	Poor	4	?	?	None visible.
574	Vertebra (thoracic body)	1	Moderate	4	?	?	Schmorl's nodes.
574	Clavicle (shaft)	1	Moderate-Poor	4	?	?	None visible.
574	Humerus (shaft fragment)	1	Moderate-Poor	4	?	?	None visible.

574	Long bone (shaft fragment)	1	Poor	4	?	?	None visible.
574	Foot (MT V left)	1	Good-Moderate	4	?	?	None visible.
574	Pelvis (left x 1)	2	Moderate	4	?	Mid Adult	None visible.
574	Femur (shaft)	1	Moderate	4	?	?	None visible.
574	Clavicle (right)	1	Good-Moderate	4	?	?	None visible.
574	Rib (shaft fragment)	1	Moderate	4	?	?	None visible.
574	Unidentifiable fragment	1	Moderate-Poor	4	?	?	None visible.
574	Vertebra (Cervical)	1	Good-Moderate	4	?	?	Osteophytic lipping around margins on vertebral bodies and porosity on inferior body surface.
574	Foot (Calcaneus right)	1	Moderate	4	?	?	None visible.
574	Pelvis (ischium fragment)	1	Moderate-Poor	4	?	?	None visible.
574	Mandible	1	Good	4	?	?	A-M tooth loss and socket resorption.
574	Skull (parietal fragment)	1	Moderate-Poor	4	?	?	None visible.
574	Ribs (left x 1 & right x 1)	2	Moderate	4	?	Infant x 1	None visible.
574	Rib (shaft fragment)	1	Moderate-Poor	4	?	?	None visible.
574	Unidentified fragment	2	Poor	4	?	?	None visible.

574	Ulna (shaft right)	1	Good-Moderate	4	?	?	None visible.
574	Humerii (shafts)	4	Moderate-Poor	4	?	?	None visible.
574	Humerii (shaft-distal epicondyles right x 2)	2	Moderate	4	?	Adult?	Robust x 1 & grassile x 1.
574	Ulna (proximal head-shaft right x 1)	1	Good-Moderate	4	?	Adult?	None visible.
574	Femur (proximal head)	1	Moderate-Poor	4	?	?	None visible.
574	Femur (proximal shaft-midshaft)	1	Moderate	4	?	Infant	None visible.
574	Femur (shaft)	1	Moderate	4	?	Infant	None visible.
574	Tibiae (shaft fragments)	2	Moderate-Poor	4	?	?	None visible.
574	Tibiae (shafts-distal shafts x 2)	2	Moderate	4	?	Infant-Juvenile	None visible.
574	Tibia (proximal shaft-midshaft)	1	Good-Moderate	4	?	Neonate-Infant	None visible.
574	Tibia (distal end)	1	Poor	4	?	?	None visible.
574	Ulna (shaft)	1	Moderate-Poor	4	?	?	None visible.
574	Fibula	1	Good	4	?	Juvenile	None visible.
574	Skull (fragments)	10	Good-Moderate	4	?	Adult?	None visible.
574	Mandible (right)	1	Moderate	4	?	?	None visible.

574	Scapula (left x 1 and unsided fragment x 1)	2	Moderate	4	?	?	Fragment shows signs of post-mortem dissection.
574	Clavicle (left)	1	Good-Moderate	4	?	?	Possible cut on sternal end. Post-mortem dissection?
574	Scapula (fragment)	1	Poor	4	?	?	None visible.
574	Scapula (left)	1	Moderate	4	?	Infant	None visible.
574	Long bone (shaft fragment)	1	Poor	4	?	?	None visible.
574	Humerus (shaft)	1	Moderate-Poor	4	?	?	None visible.
574	Fibula (distal shaft-distal end left)	1	Moderate	4	?	?	None visible.
574	Humerus	1	Good-Moderate	4	?	Infant	None visible.
574	Ulna (proximal head-shaft)	1	Good-Moderate	4	?	Juvenile	None visible.
574	Rib (shaft fragment)	1	Poor	4	?	?	None visible.
574	Humerus (left x 1)	2	Moderate	4	?	?	None visible.
574	Foot (Talus right)	1	Moderate	4	?	Adult?	None visible.
574	Foot (MT I left x 1, MT III right x 1 & MT IV right x 1)	3	Good-Moderate	4	?	?	None visible.
574	Foot (MT III left)	1	Good	4	?	Juvenile	None visible.
579	Unidentifiable fragment	1	Poor	1	?	?	None visible.

602	Skull (fragment)	1	Moderate	1	?	?	None visible.
602	Rib (shaft fragment)	1	Moderate-Poor	1	?	?	None visible.
602	Hand (MC III left x 1 & MC V left x 1)	2	Good	1	?	?	Copper staining on MC V.
606	Skull (fragments)	11	Moderate	2	?	?	None visible.
606	Mandible (x 2)	3	Good-Moderate	2	?	?	Caries
606	Dentition (pre-molar x 1 & root x 1)	2	Good-Moderate	2	?	?	None visible.
606	Hand (MC V)	1	Good-Moderate	2	?	?	None visible.
606	Hand (middle phalanges x 2)	2	Good	2	?	?	None visible.
606	Pelvis (ilium fragment)	1	Poor	2	?	Juvenile?	None visible.
606	Vertebrae (lumbar x 1, cervical x 1 & body fragment x 1)	3	Moderate-Poor	2	?	?	Osteophytic lipping on body margins of lumbar vertebra.
606	Sternum (sternal body fragment)	1	Good-Moderate	2	?	?	None visible.
606	Femur (proximal head-proximal shaft left)	1	Moderate-Poor	2	?	?	None visible.
606	Femur (distal condyles)	1	Moderate	2	?	?	None visible.
606	Radius (shaft- distal end)	1	Moderate-Poor	2	?	?	Possible infection of distal end of shaft,

606	Long bone (shaft fragments)	2	Poor	2	?	?	None visible.
610	Scapula (fragments)	3	Moderate-Poor	2	?	?	None visible.
610	Foot (Talus left)	1	Good-Moderate	2	?	?	None visible.
610	Ribs (shaft fragments)	3	Moderate-Poor	2	?	?	None visible.
610	Ribs (shaft fragments)	2	Moderate-Poor	2	?	Juvenile	None visible.
610	Skull (fragments)	2	Moderate	2	?	?	None visible.
610	Long bone (shaft fragments)	1	Moderate-Poor	2	?	?	None visible.
610	Sacrum (fragment)	1	Poor	2	?	?	None visible.
610	Hand (MT III right x 2 & MT III right x 1)	3	Moderate	2	?	?	None visible.
610	Hand (proximal phalanx)	1	Good	2	?	?	None visible.
610	Foot (MT II right)	1	Good-Moderate	2	?	?	None visible.
610	Foot (metatarsal distal end)	1	Poor	2	?	?	None visible.
610	Vertebrae (Axis x 1 & Cervical x 1)	2	Good	2	?	Adult?	Severe OA inferior articular facets on both vertebrae.
611	Scapula (right)	1	Good-Moderate	1	?	Adult?	Osteophytic lipping on right scapula around margins of glenoid fossa and acromion. Found with skeleton [611]

615	Clavicle (right)	1	Good-Moderate	2	?	?	None visible.
615	Skull (fragments)	3	Moderate	2	?	?	None visible.
615	Radius (proximal head-proximal shaft)	1	Moderate	2	?	?	None visible.
615	Foot (Metatarsal)	1	Good-Moderate	2	?	Infant?	None visible.
615	Hand (proximal phalanx)	1	Good-Moderate	2	?	Infant?	None visible.
615	Tibia (shaft)	1	Moderate	2	?	Juvenile?	None visible.
624	Long bone (fragments)	2	Poor	1	?	?	None visible.
625	Long bone (shaft fragments)	3	Poor	2	?	?	None visible.
625	Foot (metatarsal fragment)	1	Moderate-Poor	2	?	?	None visible.
625	Hand (middle phalanx)	1	Good	2	?	?	None visible.
625	Ulna (distal end)	1	Poor	2	?	?	None visible.
625	Femur (proximal shaft-midshaft)	1	Good	2	?	Juvenile	None visible.
625	Ribs (shaft fragments)	2	Poor	2	?	?	None visible.
625	Vertebrae (thoracic x 2)	2	Good-Moderate	2	?	?	Osteophytic lipping on margins of a single vertebra.
625	Rib (first rib left)	1	Moderate	2	?	?	None visible.
625	Dentition (incisor x 1 & root x 1)	2	Good-Moderate	2	?	?	None visible.

625	Pelvis (pubis fragment x 1 & ischium fragment x 1)	2	Poor	2	?	?	None visible.
625	Skull (fragments)	6	Poor	2	?	Infant-Juvenile	None visible.
630	Ulna (right)	1	Good-Moderate	4	?	Adult?	Copper staining.
630	Skull (fragments)	3	Moderate	4	?	Infant	None visible.
630	Pelvis (ischium right)	1	Moderate	4	?	Adolescent-Young Adult	None visible.
630	Pelvis (acetabulum fragment)	1	Poor	4	?	?	None visible.
630	Pelvis (pubis right)	1	Moderate-Poor	4	?	?	None visible.
630	Vertebra (body)	1	Moderate	4	?	?	None visible.
630	Femur (left x 1 & right x 1)	2	Good-Moderate	4	?	Infant	None visible.
630	Humerus (right)	1	Good	4	?	Infant	None visible.
630	Foot (Talus left)	1	Good-Moderate	4	?	?	None visible.
630	Skull (fragments)	2	Moderate	4	?	Juvenile	None visible.
630	Skull (fragments)	2	Moderate	4	?	Infant	None visible.
630	Vertebra (body fragment)	1	Poor	4	?	?	None visible.
630	Hand (proximal phalanges x 2 & middle phalanx x 1)	3	Good-Moderate	4	?	?	None visible.

630	Hand (Metacarpal shaft)	1	Poor	4	?	?	None visible.
630	Foot (MT V left)	1	Good-Moderate	4	?	?	None visible.
633	Scapula (left)	1	Moderate-Poor	1	?	Infant	None visible.
640	Fibula (shaft-distal end right)	1	Good-Moderate	1	?	?	None visible.
640	Ulna (right)	1	Good-Moderate	1	?	?	None visible.
640	Radius (right)	1	Good-Moderate	1	?	?	None visible.
640	Hand (MT III right x 1, MT IV right x 1, MT V right x 1)	3	Good-Moderate	1	?	?	None visible.
640	Hand (proximal phalanges x 3 & middle phalanges x 2)	5	Good-Moderate	1	?	?	None visible.
640	Patella (right)	1	Good	1	?	?	None visible.
640	Skull (fragments)	3	Moderate	1	?	?	None visible.
642	Humerus (shaft-distal epicondyles left x 1)	1	Good-Moderate	6	?	Adult	Robust individual.
642	Fibulae (shaft x 1 & shaft fragments x 2)	3	Moderate-Poor	6	?	?	None visible.
642	Femur (shaft fragments)	2	Poor	6	?	?	None visible.
642	Sternum (manubrium fragment & sternal body fragment)	2	Moderate	6	?	?	Slight soft tissue ossification on manubrium.

642	Foot (metatarsal shaft)	1	Moderate-Poor	6	?	?	None visible.
642	Foot (proximal phalanx)	1	Good	6	?	?	None visible.
642	Clavicle (fragment left)	1	Moderate	6	?	Adult?	Robust individual.
642	Mandible (Ramus right)	1	Moderate	6	?	?	None visible.
642	Vertebrae (Lumbar x 2)	3	Moderate	6	?	Adult?	None visible.
642	Vertebra (Lumbar)	1	Good-Moderate	6	?	Juvenile	None visible.
642	Vertebra (Axis)	1	Good	6	?	Adult?	None visible.
642	Skull (fragments)	8	Moderate	6	?	Infant	None visible.
642	Skull (fragments)	8	Moderate	6	?	?	None visible.
642	Skull	1	Moderate	6	Female?	Mid-Old Adult	None visible.
642	Maxillae (x 2)	2	Good-Moderate	6	?	Young-Mid Adult	Caries.
642	Mandible (x 3)	3	Moderate	6	?	?	A-M tooth loss and socket resorption.
642	Long bone (shaft fragments)	7	Poor	6	?	?	None visible.
642	Foot (Calcanei left x 2)	2	Moderate	6	?	?	None visible.
642	Unidentified fragment	1	Poor	6	?	?	None visible.
642	Rib (right)	1	Moderate	6	?	?	None visible.

642	Ribs (left x 2)	2	Moderate	6	?	?	None visible.
642	Ribs (shaft fragments)	2	Poor	6	?	?	None visible.
642	Humerii (left x 1 & right x 1)	2	Good-Moderate	6	?	Adult?	Copper staining and possible cut (on proximal head) of right humerus.
642	Humerus (distal shaft fragment)	1	Poor	6	?	?	None visible.
642	Claviculae (left x 2)	2	Moderate	6	?	?	None visible.
642	Patella (fragment)	1	Moderate-Poor	6	?	?	Severe OA.
642	Fibula (shaft)	1	Moderate	6	?	Adult?	None visible.
642	Radius (right)	1	Good-Moderate	6	?	Adult?	None visible.
642	Radius (shaft)	1	Moderate	6	?	Infant	None visible.
642	Ulna (shaft)	1	Moderate-Poor	6	?	Infant	None visible.
642	Tibia (shaft)	1	Moderate-Poor	6	?	Infant?	None visible.
642	Femora (proximal shaft-distal shaft left x 1 & right x 1)	2	Moderate	6	?	Infant	None visible.
642	Femur (left x 1 & right x 1)	2	Good-Moderate	6	?	Infant x 1 & Juvenile x 1	None visible.
642	Femur (distal shaft)	1	Moderate	6	?	Juvenile	None visible.
642	Pelvis (ischium fragment right)	1	Poor	6	?	?	None visible.

642	Scapulae (right x 1 & left x 1)	3	Moderate	6	?	?	None visible.
642	Scapula (fragment)	1	Poor	6	?	?	None visible.
642	Scapula (left)	1	Moderate	6	?	Infant	None visible.
642	Foot (proximal phalanx)	1	Good-Moderate	6	?	?	None visible.
642	Hand (proximal phalanx)	1	Good	6	?	?	None visible.
642	Foot (MT I left x 3, MT II right x 1 & left x 1, MT III right x 1, MT IV right x 1 & MT V left x 1)	8	Good-Moderate	6	?	?	None visible.
642	Humerus (shaft)	1	Moderate	6	?	?	None visible.
642	Hand (MC V?)	1	Moderate-Poor	6	?	?	None visible.
646	Skull (fragments)	5	Good-Moderate	6	?	?	Copper staining.
646	Mandible (fragment)	1	Poor	6	?	?	None visible.
646	Humerus (distal shaft- distal epicondyles left)	1	Good-Moderate	6	?	?	None visible.
646	Ribs (right x 2)	2	Good-Moderate	6	?	?	None visible.
646	Vertebrae (axis x 1 & thoracic x 2)	3	Good-Moderate	6	?	?	Traces of porosity on articular facets of one thoracic vertebra.
646	Scapula (right)	1	Moderate	6	?	Infant	None visible.
646	Ulna (left)	1	Good	6	?	Adult?	None visible.

646	Radius (left)	1	Good	6	?	Adult?	None visible.
646	Pelvis (ilia left x 1 & right x 1)	2	Moderate	6	Male?	Young-Mid Adult	None visible.
646	Pelvis (ischium left x 1)	1	Moderate	6	?	?	None visible.
646	Femur (proximal head)	1	Moderate-Poor	6	?	?	None visible.
646	Clavicle (right)	1	Moderate	6	?	?	None visible.
646	Hand (MC III left x 1 & right x 1 & MC IV right x 1)	3	Good-Moderate	6	?	?	None visible.
646	Hand (proximal phalanx)	1	Good	6	?	?	None visible.
648	Foot (proximal phalanx)	1	Good	1	?	?	None visible.
648	Unidentifiable fragment	1	Poor	1	?	?	None visible.
650	Mandible (x 1)	3	Moderate	2	?	?	Possible A-M tooth loss and socket resorption.and abscess.
650	Vertebra (lumbar)	1	Moderate	2	?	Adult?	None visible.
650	Foot (Talus left)	1	Good	2	?	?	None visible.
650	Skull (fragment)	1	Moderate	2	?	Juvenile?	None visible.
650	Fibula (shaft)	1	Moderate	2	?	?	None visible.
650	Humerus (shaft)	1	Moderate	2	?	Juvenile	None visible.

650	Foot (proximal phalanx)	1	Moderate	2	?	?	None visible.
650	Foot (MT III right)	1	Good-Moderate	2	?	?	None visible.
650	Rib (shaft fragment)	1	Poor	2	?	?	None visible.
651	Skull (fragments)	3	Moderate	2	?	Adult?	None visible.
651	Clavicle (right)	1	Good-Moderate	2	?	?	None visible.
651	Rib (shaft fragment)	1	Poor	2	?	?	None visible.
651	Radius (shaft)	1	Moderate	2	?	?	None visible.
651	Vertebra (cervical)	1	Good-Moderate	2	?	?	None visible.
651	Scapula (fragment)	1	Poor	2	?	?	None visible.
651	Foot (MT I left)	1	Moderate	2	?	?	None visible.
651	Skull (fragments)	4	Moderate-Poor	2	?	?	Post-mortem dissection on one fragment.
651	Dentition (canine)	1	Good	2	?	?	Caries
651	Sacrum (S1 fragment)	1	Poor	2	?	?	None visible.
651	Foot (Talus left x 2)	2	Good-Moderate	2	?	?	None visible.
651	Ulna (proximal head-proximal shaft right)	1	Moderate-Poor	2	?	Adult?	None visible.
651	Ulna (proximal head-midshaft)	1	Moderate-Poor	2	?	Juvenile?	None visible.

	right)						
651	Pelvis (fragments)	4	Moderate	2	?	?	None visible.
651	Scapula (fragments)	2	Poor	2	?	?	None visible.
651	Ribs (shaft fragments)	3	Moderate	2	?	?	None visible.
651	Foot (MT V left)	1	Moderate	2	?	?	None visible.
664	Skull (Fragments)	2	Moderate	5	?	?	None visible.
664	Sacrum (fragments)	2	Poor	5	?	?	None visible.
664	Vertebrae (body x 1 & neural arch fragment x 1)	2	Moderate-Poor	5	?	?	None visible.
664	Ribs (shaft fragment)	1	Moderate-Poor	5	?	?	None visible.
664	Hand (proximal phalanx)	1	Moderate	5	?	?	None visible.
664	Hand (MC IV right)	1	Good-Moderate	5	?	?	None visible.
664	Foot (MT III right)	1	Moderate	5	?	?	None visible.
664	Skull fragments	80	Moderate-Poor	5	?	Infant	Copper staining on several fragments.
664	Mandible	6	Moderate	5	?	Infant	None visible.
664	Unidentifiable fragments	13	Poor	5	?	?	None visible.
664	Humerus (right x 2, left x 1, proximal head x 1)	5	Moderate	5	?	Infant x 2	None visible.

664	Femur (right x 1, left x 1, proximal head right x 1 & proximal head-midshaft left x 1)	6	Moderate	5	?	Infant x 2	None visible.
664	Tibiae (left x 1 & midshaft-distal end left x 1)	2	Moderate	5	?	Infant	None visible.
664	Fibula (shaft)	1	Moderate	5	?	Infant	None visible.
664	Ulna (left x 1)	2	Moderate	5	?	Infant	None visible.
664	Radius (left)	1	Good-Moderate	5	?	Infant	None visible.
664	Long bone (shafts)	8	Moderate	5	?	Infant?	None visible.
664	Ribs (shaft fragments)	8	Poor	5	?	Infant	None visible.
664	Radius (proximal-midshaft)	1	Moderate	5	?	Infant	None visible.
664	Vertebrae (neural arch fragments)	4	Moderate	5	?	Infant	None visible.
664	Foot (Metatarsals)	6	Good-Moderate	5	?	Infant	None visible.
664	Hand (proximal phalanx)	1	Moderate	5	?	Infant	None visible.
664	Vertebrae (cervical neural arches x 21, thoracic neural arches x 20 & lumbar neural arches x 17)	58	Good-Moderate	5	?	Neonate-Infant	None visible.
664	Vertebrae (bodies x 14 & lumbar x 3)	17	Good-Moderate	5	?	Neonate-Infant	None visible.

664	Hand/Foot (metatarsals/metacarpals)	11	Good	5	?	Neonate- Infant	None visible.
664	Clavicle (left x 2 & unsided x 4)	6	Moderate	5	?	Neonate- Infant	None visible.
664	Pelvis (Ilium right x 2 & ilium x 1)	3	Moderate	5	?	Infant	None visible.
664	Pelvis (ilium fragment)	1	Moderate	5	?	Infant?	None visible.
664	Pelvis (Ischium right)	1	Good-Moderate	5	?	Infant	None visible.
664	Pelvis (ischium left x 1 & ischium right x 1)	2	Good	5	?	Neonate	None visible.
664	Pelvis (pubis left)	1	Good-Moderate	5	?	Infant?	None visible.
664	Sacrum (fragment)	1	Moderate-Poor	5	?	Infant?	None visible.
664	Scapulae (fragment left x 1 & fragment right x 1)	2	Moderate-Poor	5	?	Juvenile?	None visible.
664	Ribs (shaft fragments)	19	Moderate-Poor	5	?	Infant?	None visible.
664	Ribs (shaft fragments)	5	Moderate-Poor	5	?	Juvenile	None visible.
664	Ribs (left x 9 & right x 11)	20	Moderate	5	?	Infant	None visible.
664	Ribs (right x 2)	2	Moderate	5	?	Juvenile?	None visible.
664	Skull (fragments)	5	Moderate	5	?	Infant?	None visible.
664	Mandible (fragments)	2	Moderate-Poor	5	?	Infant?	None visible.

668	Sacrum	1	Good-Moderate	3	?	Adult?	None visible.
668	Sacrum (S1)	1	Good-Moderate	3	?	Juvenile	None visible.
668	Vertebrae (cervical x 1, thoracic x 1, lumbar x 1)	3	Good-Moderate	3	?	Adult?	None visible.
668	Femur (shaft)	1	Good-Moderate	3	?	Juvenile	None visible.
668	Humerus (proximal head fragment)	1	Poor	3	?	?	None visible.
668	Humerus (proximal head)	1	Moderate	3	?	Adult?	None visible.
668	Ulna (right)	1	Good	3	?	Infant-Juvenile	None visible.
668	Clavicle (left)	1	Moderate-Poor	3	?	?	None visible.
668	Scapula (right)	1	Moderate	3	?	Infant	None visible.
668	Pelvis (ischium)	1	Good	3	?	Infant	None visible.
668	Skull (temporal fragment right)	1	Moderate	3	?	Infant	None visible.
668	Ribs (shaft fragments)	2	Poor	3	?	?	None visible.
668	Ribs (left x 1 & right x 1)	2	Moderate-Poor	3	?	?	None visible.
668	Rib (rib head fragment)	1	Moderate-Poor	3	?	?	None visible.
668	Foot (Metatarsals)	2	Moderate	3	?	?	None visible.
670	Skull (x 1)	15	Moderate	2	?	Juvenile?	None visible.

670	Mandible	1	Good-Moderate	2	?	Old Adult?	A-M tooth loss and socket resorption.
670	Skull (fragments)	16	Poor	2	?	?	None visible.
670	Tibia (shaft)	1	Moderate-Poor	2	?	?	None visible.
670	Femur (shaft)	1	Moderate-Poor	2	?	?	None visible.
670	Long bone (shaft fragment)	1	Poor	2	?	?	None visible.
670	Vertebrae (Atlas x 1 & Cervical x 2)	5	Moderate	2	?	Juvenile?	None visible.
670	Vertebra (neural arch fragment)	1	Poor	2	?	?	None visible.
670	Clavicle (right)	1	Moderate	2	?	?	None visible.
670	Rib (rib head right)	1	Moderate-Poor	2	?	?	None visible.
670	Dentition (pre-molar)	1	Good	2	?	Juvenile	None visible.
670	Scapula (right x 1)	2	Moderate	2	?	Adult?	None visible.
670	Scapula (right x 1)	1	Moderate	2	?	Juvenile	None visible.
670	Humerus (right x 1)	2	Good-Moderate	2	?	Adult?	None visible.
670	Vertebrae (cervical x 3)	3	Moderate	2	?	Adult	Osteophytic lipping and porosity on vertebral bodies
670	Vertebrae (neural arch fragments)	2	Poor	2	?	?	None visible.

670	Vertebrae (Axis x 2)	3	Moderate	2	?	Adult?	None visible.
670	Vertebrae (Cervical x 3, Thoracic x 2 & body x 1)	6	Good-Moderate	2	?	Juvenile	None visible.
670	Foot (MT II & MT IV)	2	Good-Moderate	2	?	?	None visible.
670	Sternum (manubrium)	1	Good-Moderate	2	?	Juvenile	None visible.
670	Clavicles (right x 2 & fragment x1)	4	Moderate	2	?	Juvenile?	None visible.
670	Hand (Metacarpal shaft)	1	Moderate-Poor	2	?	Juvenile?	None visible.
670	Ribs (shaft fragments)	22	Moderate-Poor	2	?	?	None visible.
670	Ribs (right x 4)	4	Moderate	2	?	Juvenile?	None visible.
670	Unidentifiable fragments	8	Poor	2	?	?	None visible.
681	Tibia (shaft left)	1	Moderate	2	?	Adult?	None visible.
681	Pelvis (right)	1	Moderate	2	?	Adult?	None visible.
681	Sacrum (fragment)	1	Moderate-Poor	2	?	?	None visible.
681	Tibia (distal end fragment)	1	Poor	2	?	?	None visible.
681	Humerus (proximal head fragment)	1	Moderate-Poor	2	?	?	None visible.
681	Rib (right)	1	Good-Moderate	2	?	?	None visible.

681	Rib (shaft fragment)	1	Moderate-Poor	2	?	Juvenile?	None visible.
681	Hand (proximal phalanx)	1	Moderate	2	?	?	None visible.
681	Skull (maxilla fragment)	1	Poor	2	?	?	None visible.
682	Femur (right)	1	Good	1	?	Infant	Found with skeleton [682] B
682	Humerus (shaft)	1	Moderate	1	?	Infant	Found with skeleton [682] B
683	Scapula (right)	1	Moderate	2	?	Adult?	None visible.
683	Pelvis (pubis fragments right x 2)	2	Moderate-Poor	2	?	Mid Adult x 2	None visible.
683	Long bone (shaft fragment)	1	Poor	2	?	?	None visible.
683	Vertebra (neural arch fragment)	1	Poor	2	?	?	None visible.
683	Ribs (shaft fragments)	8	Moderate	2	?	?	None visible.
685	Humerus (proximal head fragment)	1	Poor	1	?	?	None visible.
685	Vertebra (neural arch fragment)	1	Poor	1	?	?	None visible.
688	Tibia (left)	1	Good-Moderate	1	?	Juvenile	None visible.
688	Fibulae (left x 1 & right x 1)	3	Good-Moderate	1	?	Juvenile	None visible.
688	Foot (Calcaneus x 2, Talus x 2 & Metatarsals x 7)	11	Good-Moderate	1	?	Juvenile	None visible.

696	Scapula (right)	1	Good-Moderate	1	?	?	Found with skeleton [696].
698	Humerus (shaft fragment)	1	Moderate-Poor	1	?	Infant	Found with skeleton [698]
698	Femur (shaft)	1	Moderate	1	?	Infant	Found with skeleton [698]
701	Hand (MC I right x 1 & MC III left x 1)	2	Good-Moderate	3	?	?	None visible.
701	Foot (MT I left x 1)	1	Good-Moderate	3	?	?	None visible.
701	Ribs (shaft fragments)	4	Moderate	3	?	?	None visible.
701	Rib (left)	1	Moderate-Poor	3	?	Infant-Juvenile	None visible.
701	Pelvis (pubis left x 1)	2	Moderate	3	?	Old Adult	None visible.
701	Vertebrae (neural arches)	4	Good-Moderate	3	?	?	None visible.
701	Scapula (fragments)	2	Moderate-Poor	3	?	?	None visible.
701	Scapula (left x 2)	2	Moderate	3	?	?	None visible.
701	Skull (parietal fragment)	1	Moderate-Poor	3	?	?	None visible.
706	Skull	7	Moderate	1	Female?	Adult	Found with skeleton [706]. Craniotomy. Copper staining.
706	Foot (right)	17	Good	1	?	Adult	Found with skeleton [706].
706	Tibia (distal end)	1	Good-Moderate	1	?	Adult	Found with skeleton [706].

706	Femur (shaft)	1	Good-Moderate	1	?	Adult	Found with skeleton [706]. Post-mortem dissection
706	Fibula (distal end)	2	Moderate	1	?	Adult	Found with skeleton [706].
706	Mandible (fragment)	1	Moderate	1	?	Old Adult?	Found with skeleton [706]. A-M tooth loss and socket resorption? Post mortem dissection.
706	Rib (shaft fragment)	1	Moderate-Poor	1	?	?	Found with skeleton [706].
717	Tibia (right)	1	Moderate	1	?	Adult?	None visible.
717	Skull (fragment)	1	Moderate-Poor	1	?	?	None visible.
721	Clavicles (x 2)	2	Good-Moderate	2	?	?	Post-mortem dissection.
721	Vertebra (thoracic)	1	Good-Moderate	2	?	?	Slight osteophytic lipping on inferior body margin.
721	Scapula (fragment)	1	Moderate-Poor	2	?	?	None visible.
721	Pelvis (ilium right)	1	Good-Moderate	2	?	Infant-Juvenile	None visible.
721	Ribs (shaft fragments)	3	Moderate-Poor	2	?	?	None visible.
721	Ribs (left x 2)	2	Moderate	2	?	?	None visible.
721	Rib (right)	1	Moderate	2	?	Infant?	None visible.
721	Sternum (manubrium)	1	Good-Moderate	2	?	?	Post-mortem dissection.

722	Humerus (right)	1	Good-Moderate	1	?	?	Post mortem dissection: mid shaft of right humerus. Found with skeleton [722].
722	Ulna (right)	1	Good-Moderate	1	?	?	Found with skeleton [722].
724	Long bone (shaft)	1	Moderate-Poor	4	?	Infant?	None visible.
724	Skull (fragments)	4	Moderate-Poor	4	?	?	None visible.
724	Sacrum (fragments)	4	Poor	4	?	?	Traces of OA.
724	Humerus (proximal head)	1	Moderate	4	?	?	Post-mortem dissection.
724	Sternum (fragment)	1	Poor	4	?	?	None visible.
724	Fibula (shaft)	1	Moderate	4	?	?	None visible.
724	Ribs (shaft fragments)	3	Moderate-Poor	4	?	?	None visible.
724	Ribs (right)	2	Moderate	4	?	?	None visible.
724	Rib (left)	1	Moderate-Poor	4	?	Infant	None visible.
724	Unidentifiable fragments	2	Poor	4	?	?	None visible.
724	Foot (MT I left x 1 & MT IV right x 1)	2	Moderate	4	?	?	None visible.
724	Hand (MC I left x 1 & MC III left x 1)	2	Good-Moderate	4	?	?	None visible.
724	Hand (proximal phalanx x 1 &	2	Good-Moderate	4	?	?	None visible.

	middle phalanx x 1)						
724	Rib (fragment)	1	Poor	4	?	?	None visible.
724	Skull (x 1)	5	Good-Moderate	4	?	Juvenile	None visible.
724	Mandible	1	Good-Moderate	4	Male?	Old Adult?	A-M tooth loss and socket resorption.
724	Fibula (shaft)	1	Moderate	4	?	?	Badly healed fracture and subsequent infection.
724	Vertebra (thoracic)	1	Moderate	4	?	Adult?	OA on articular facets.
724	Vertebrae (neural arch fragments x 2 & body x 1)	3	Moderate-Poor	4	?	?	None visible.
724	Scapulae (left x 1 & right x 1 & acromion fragment x 1)	3	Moderate-Poor	4	?	?	None visible.
724	Pelvis (ischium fragment)	1	Moderate-Poor	4	?	?	None visible.
724	Calcaneus (right)	1	Good-Moderate	4	?	?	Post-mortem dissection.
724	Ribs (shaft fragments)	3	Moderate-Poor	4	?	?	None visible.
724	Hand / Foot (shaft fragments)	3	Poor	4	?	?	None visible.
724	Hand (MC III right x 1 & MC II right x 1)	2	Good-Moderate	4	?	?	None visible.
724	Femur (midshaft-distal shaft)	1	Moderate-Poor	4	?	Infant	None visible.
724	Humerus (left)	1	Moderate	4	?	Neonate	None visible.

724	Radius (distal shaft)	1	Poor	4	?	Juvenile?	None visible.
728	Fibula (proximal head)	1	Moderate-Poor	1	?	?	None visible.
730	Skull (frontal and parietal fragments)	19	Moderate	4	?	Adult?	None visible.
730	Skull (frontal and parietal fragments)	2	Moderate	4	?	Juvenile	None visible.
730	Skull (temporal left x 1 & right x 1)	2	Moderate	4	?	Adult	None visible.
730	Skull (temporal right)	1	Good-Moderate	4	?	Juvenile	None visible.
730	Skull (Vicinity of foramen magnum x 2)	2	Moderate	4	?	Adult x 2?	None visible.
730	Mandible (left)	1	Good-Moderate	4	?	Adolescent-Young Adult	None visible.
730	Mandible (Ramus fragment left)	1	Moderate-Poor	4	?	?	None visible.
730	Vertebrae (cervical x 1 & thoracic x 1)	2	Good-Moderate	4	?	Adult?	Schmorl's nodes on thoracic vertebrae.
730	Femur (proximal head-shaft left)	1	Moderate	4	?	Adult?	None visible.
730	Fibula (shaft fragments)	2	Moderate-Poor	4	?	?	None visible.
730	Tibia (shaft)	1	Moderate	4	?	Juvenile	None visible.
730	Tibia (shaft-distal end right)	1	Moderate	4	?	Adult?	None visible.

730	Pelvis (left x 1)	2	Moderate	4	Male?	Adult	Fusion of fragment of sacrum to auricular surface.
730	Long bone (shaft fragments)	2	Poor	4	?	?	None visible.
730	Rib (right)	1	Good-Moderate	4	?	?	None visible.
730	Ribs (shaft fragments)	6	Moderate-Poor	4	?	?	None visible.
730	Clavicle (left)	1	Good-Moderate	4	?	Adult	Porosity and osteophytic lipping on sternal and acromial articulations.
730	Humerus (mid-distal shaft)	1	Moderate	4	?	Adult?	None visible.
730	Humerus (left)	1	Good-Moderate	4	?	Infant	None visible.
730	Ulna (left)	1	Good-Moderate	4	?	Adult?	None visible.
730	Radius (right)	1	Moderate	4	?	Adult?	None visible.
730	Foot (Metatarsals)	5	Moderate	4	?	?	None visible.
730	Hand (MC IV & MC V)	2	Good-Moderate	4	?	?	None visible.
730	Foot (proximal phalanx)	1	Good-Moderate	4	?	?	None visible.
731	Unidentifiable fragments	6	Poor	4	?	?	None visible.
731	Foot (Calcaneus right)	1	Moderate	4	?	Adult?	None visible.
731	Foot (navicular right)	1	Moderate	4	?	Adult?	None visible.

731	Foot (talus right)	1	Good-Moderate	4	?	Adult?	None visible.
731	Foot (talus right)	1	Moderate	4	?	Juvenile?	None visible.
731	Hand (MC III right x 2)	2	Good-Moderate	4	?	Adult? x 1 Juvenile? x 1	None visible.
731	Foot (MT IV right)	1	Good-Moderate	4	?	?	None visible.
731	Foot (proximal phalanges)	2	Moderate	4	?	?	None visible.
731	Sternum (xiphoid process)	1	Moderate	4	?	?	None visible.
731	Pelvis (ilium left)	1	Moderate-Poor	4	?	?	None visible.
731	Pelvis (ilium left)	1	Good-Moderate	4	?	Infant	None visible.
731	Vertebrae (body and neural arch)	2	Moderate	4	?	Juvenile	None visible.
731	Vertebrae (thoracic x 2)	2	Moderate-Poor	4	?	Adult?	None visible.
731	Vertebrae (lumbar x 2)	3	Moderate	4	?	Adult?	Schmorl's nodes.
731	Ribs (shaft fragments)	3	Moderate-Poor	4	?	?	None visible.
731	Rib (shaft)	1	Moderate	4	?	Infant?	None visible.
731	Rib (left)	1	Good-Moderate	4	?	?	None visible.
731	Skull (fragments)	11	Moderate	4	?	?	None visible.
731	Skull (fragments)	5	Moderate	4	?	Infant-Juvenile	None visible.

731	Scapula (right)	1	Moderate	4	?	Infant	None visible.
731	Scapula (right)	1	Moderate	4	?	Neonate	None visible.
731	Humerus (right)	1	Good-Moderate	4	?	Infant	None visible.
731	Tibia (proximal shaft-midshaft)	1	Good-Moderate	4	?	Infant	None visible.
731	Humerus (right?)	1	Good	4	?	Neonate	None visible.
731	Pelvis (ischium?)	1	Moderate	4	?	Infant?	None visible.
731	Pelvis (ischium fragments)	2	Poor	4	?	?	None visible.
731	Scapula (acromion and spine right)	1	Moderate	4	?	?	None visible.
731	Scapula (coracoid process left)	1	Moderate	4	?	?	None visible.
731	Vertebra (cervical?)	1	Moderate	4	?	?	None visible.
731	Vertebrae (thoracic)	2	Moderate	4	?	?	None visible.
731	Vertebrae (bodies)	2	Moderate-Poor	4	?	?	None visible.
731	Vertebrae (lumbar)	3	Moderate	4	?	?	Schmorl's nodes.
731	Patella (right)	1	Good-Moderate	4	?	?	None visible.
731	Tibia (proximal head)	1	Moderate-Poor	4	?	Adult?	None visible.
731	Femur (distal condyles)	1	Poor	4	?	?	None visible.

731	Skull (fragments)	4	Good-Moderate	4	?	Juvenile	Copper staining.
731	Rib (shaft)	1	Moderate	4	?	?	None visible.
731	Scapula (fragment)	1	Moderate-Poor	4	?	?	None visible.
731	Foot (MT V left)	1	Good-Moderate	4	?	Adult	Osteophytic lipping on distal joint surface?
731	Foot (Calcaneus left x 1)	1	Moderate-Poor	4	?	Adult?	None visible.
731	Foot (Calcaneus right x 1)	1	Moderate-Poor	4	?	Juvenile?	None visible.
731	Unidentifiable fragments	4	Poor	4	?	?	None visible.
731	Scapulae (fragments)	8	Moderate-Poor	4	?	?	None visible.
731	Vertebrae (cervical x 2)	2	Moderate	4	?	Adult?	Osteophytic lipping and slight porosity.
731	Vertebra (body)	1	Moderate-Poor	4	?	?	None visible.
731	Vertebrae (neural arches)	4	Poor	4	?	?	None visible.
731	Vertebra (Lumbar)	1	Moderate	4	?	Adult?	Osteophytic lipping.
731	Sternum (manubrium)	1	Moderate	4	?	?	None visible.
731	Long bone (shaft fragment)	1	Poor	4	?	?	None visible.
731	Patallae (x 2)	2	Moderate-Poor	4	?	?	None visible.
731	Skull (fragments)	10	Moderate	4	?	Adult?	None visible.

731	Skull (fragments)	7	Moderate	4	?	Infant-Juvenile	None visible.
731	Mandible (fragments x 4)	6	Moderate-Poor	4	?	?	None visible.
731	Pelvis (ilium fragment)	1	Poor	4	?	?	None visible.
731	Radius (midshaft-distal end left)	1	Moderate	4	?	Juvenile	None visible.
731	Foot (MT V right & MT IV right)	2	Moderate	4	?	?	None visible.
731	Femur (left x 1)	2	Good-Moderate	4	?	Juvenile	None visible.
731	Hand (middle phalanges)	2	Good-Moderate	4	?	?	None visible.
731	Hand (MC II left x 1 & right x 1, MC III right x 2, MC IV right x 1, MC V x 1)	6	Moderate-Poor	4	?	?	None visible.
731	Foot (calcaneus fragment)	1	Poor	4	?	?	None visible.
731	Ribs (left x 2, right x 2)	4	Moderate-Poor	4	?	?	None visible.
731	Ribs (left x 3)	3	Moderate-Poor	4	?	Infant	None visible.
731	Skull	1	Moderate	4	Male?	Old Adult?	None visible.
731	Skull (fragment)	1	Moderate-Poor	4	?	Juvenile?	None visible.
731	Rib (shaft fragment)	1	Moderate-Poor	4	?	Juvenile?	None visible.
731	Vertebrae (thoracic?)	2	Moderate-Poor	4	?	Juvenile?	None visible.
731	Fibula (shaft fragments and	3	Moderate-Poor	4	?	?	None visible.

	proximal head)						
732	Mandible (left side)	1	Good	1	?	Adult	Post-mortem dissection. Found with skeleton [732]
732	Skull (left zygomatic)	1	Moderate	1	?	?	Found with skeleton [732]
732	Sacrum (fragments)	2	Moderate-Poor	1	?	?	Found with skeleton [732]
732	Foot (left medial cunieform, MTs I & III, Proximal phlanges)	7	Good	1	?	Adult?	OA - MTI and proximal phalanx. Found with skeleton [732].
735	Tibia (proximal head-midshaft left)	1	Moderate	1	?	?	None visible.
735	Pelvis (ilium right)	1	Moderate	1	?	Mid-Old Adult	None visible.
735	Pelvis (pubis left)	1	Moderate	1	?	?	None visible.
735	Vertebra (thoracic x 1)	1	Good	1	?	?	None visible.
735	Radius (proximal head)	1	Moderate	1	?	?	None visible.
735	Radius (midshaft-distal end left)	1	Good-Moderate	1	?	?	Copper staining.
735	Hand (Metacarpals x 2)	2	Good	1	?	?	None visible.
735	Hand (proximal phalanx)	1	Good	1	?	?	None visible.
735	Unidentifiable fragments	2	Poor	1	?	?	None visible.
736	Vertebrae (body)	1	Good	1	?	Infant	Found with skeleton (736)

736	Femur (left proximal-distal shaft)	1	Good-Moderate	1	?	Infant	Found with skeleton (736)
736	Pelvis (left ilium)	1	Moderate	1	?	Infant	Found with skeleton (736)
742	Skull	1	Good-Moderate	5	Female?	Young-Mid Adult	Caries.
742	Vertebrae (cervical x 1, thoracic x 2, lumbar x 3)	6	Moderate	5	?	Adult x 2?	Osteophytic lipping on one vertebral body margin.
742	Pelvis (right x 1)	3	Good-Moderate	5	?	?	None visible.
742	Pelvis (ischium left)	1	Good-Moderate	5	?	Juvenile	Copper staining.
742	Scapulae (left x 2)	3	Moderate	5	?	?	None visible.
742	Scapula (fragments)	2	Poor	5	?	?	None visible.
742	Skull (sphenoid x1, left temporal x 1, right temporal x 1, maxilla x1)	4	Moderate	5	?	?	None visible.
742	Ribs (left x 3)	3	Good-Moderate	5	?	?	None visible.
742	Rib (shaft)	1	Moderate	5	?	?	None visible.
742	Talus (left)	1	Good-Moderate	5	?	?	None visible.
742	Skull (fragments)	35	Moderate	5	?	Infant?	None visible.
742	Pelvis (ilium right)	1	Moderate	5	?	Juvenile	None visible.
742	Sacrum (S1 x 2)	2	Moderate	5	?	Juvenile x 2	None visible.

742	Sacrum (fragments)	2	Poor	5	?	?	None visible.
742	Scapula (fragment)	1	Poor	5	?	?	None visible.
742	Mandible	1	Good-Moderate	5	Male?	Adult?	Caries. Dental overcrowding.
742	Rib (right)	1	Moderate	5	?	?	None visible.
742	Ribs (shaft fragments)	7	Moderate-Poor	5	?	?	None visible.
742	Vertebrae (C5-T8)	11	Good-Moderate	5	?	Adult	Fusion of all elements at articular facets and bodies. Vertebral collapse and scoliosis. Ankylosing spondylitis?
742	Scapula (fragment)	1	Moderate-Poor	5	?	?	None visible.
742	Radius (proximal head-mid shaft)	1	Good-Moderate	5	?	?	None visible.
742	Foot (MT I & MT III right)	2	Good-Moderate	5	?	Adult?	None visible.
742	Hand (Middle phalanx)	1	Good	5	?	?	None visible.
742	Humerus (left)	1	Good-Moderate	5	?	?	None visible.
742	Humerus (distal shaft and epicondyles left)	1	Moderate	5	?	?	None visible.
742	Femur (right)	1	Good	5	?	Adult?	None visible.
742	Tibia (right)	1	Good-Moderate	5	?	Adult?	None visible.

742	Ribs (left)	3	Good-Moderate	5	?	?	Copper staining.
742	Long bone (shaft fragment)	1	Moderate-Poor	5	?	?	None visible.
742	Ulna (right)	1	Good	5	?	Adult?	None visible.
742	Radius (left x 2 & right x 1)	3	Good-Moderate	5	?	?	None visible.
742	Fibula (proximal head and shaft)	1	Good-Moderate	5	?	?	Copper staining.
742	Fibula (distal end and shaft)	1	Good-Moderate	5	?	?	None visible.
742	Femur (left x 1 & right x 1)	2	Good-Moderate	5	?	Juvenile	None visible.
742	Tibia (left)	1	Good-Moderate	5	?	Juvenile	None visible.
742	Vertebrae (neural arch & neural arch fragments)	3	Moderate-Poor	5	?	Infant?	None visible.
742	Vertebrae (Cervical x 2 & Thoracic x 2)	4	Good	5	?	?	None visible.
742	Scapula (fragments)	2	Moderate-Poor	5	?	?	None visible.
742	Clavicle (shaft)	1	Moderate	5	?	?	None visible.
742	Pelvis (ilium fragments)	2	Moderate-Poor	5	?	?	None visible.
742	Pelvis (ischium left x 1 & ischium right x 1)	2	Good	5	?	Infant-Juvenile	None visible.
742	Sternum (Sternal body)	1	Good	5	?	?	None visible.

742	Skull (fragments)	8	Moderate-Poor	5	?	?	None visible.
742	Mandible (right)	1	Moderate-Poor	5	?	Infant	None visible.
742	Mandible (fragment)	1	Poor	5	?	?	None visible.
742	Dentition (molar & canine)	2	Good	5	?	?	Caries
742	Long bone (shaft fragments)	3	Poor	5	?	?	None visible.
742	Unidentifiable fragments	22	Poor	5	?	?	None visible.
742	Fibula (proximal head and shaft)	1	Good-Moderate	5	?	?	None visible.
742	Foot (Calcaneii left and right)	2	Good-Moderate	5	?	?	None visible.
742	Foot (talus right)	1	Good	5	?	?	None visible.
742	Foot (navicular right)	1	Good	5	?	?	None visible.
742	Foot (cuboid left and right)	2	Good-Moderate	5	?	?	None visible.
742	Foot (medial cunieform left and right)	2	Good	5	?	?	None visible.
742	Foot (lateral cunieform right and left)	2	Good	5	?	?	None visible.
742	Foot (intermediate cunieform right)	1	Good	5	?	?	None visible.
742	Foot (calcaneus right & talus right)	2	Moderate	5	?	Infant	None visible.

742	Hand (hamate left)	1	Good	5	?	?	None visible.
742	Patella (left)	1	Good	5	?	?	None visible.
742	Fibula (shaft)	1	Good-Moderate	5	?	Juvenile	None visible.
742	Radius (left)	1	Good-Moderate	5	?	Juvenile	None visible.
742	Ulna (left)	1	Good-Moderate	5	?	Juvenile	None visible.
742	Ribs (shaft fragments)	6	Moderate-Poor	5	?	?	None visible.
742	Ribs (left x 4)	4	Moderate	5	?	?	None visible.
742	Rib (right x 1)	1	Moderate	5	?	?	None visible.
742	Foot (MT I x 2, MT II x 1 & MT V x 1 - all left)	4	Good-Moderate	5	?	?	None visible.
742	Foot (MT I x 2, MT II x 1, MT III x 2, MT IV x 3 & MT V x 1)	9	Good-Moderate	5	?	?	Copper staining on MT IV x 1.
742	Hand (MC I left)	1	Good	5	?	?	None visible.
742	Hand (MC II x 2, MC III x 1, MC IV x 1 & MC V x 1)	5	Good	5	?	?	None visible.
742	Hand (Metacarpals x 3)	3	Good-Moderate	5	?	Infant	None visible.
742	Foot (Metatarsals x 3)	3	Good-Moderate	5	?	Infant	None visible.
742	Hand (proximal phalanx)	1	Moderate	5	?	Infant	None visible.

742	Foot (proximal phalanges x 8 & distal phalanges x 3)	11	Good	5	?	?	None visible.
742	Hand (proximal phalanges x 8 & middle phalanges x 3)	11	Good-Moderate	5	?	?	None visible.
752	Skull (fragments?)	2	Poor	1	?	?	Copper staining on both fragments.
754	Pelvis (left)	1	Good-Moderate	2	Male?	Mid Adult	None visible.
754	Pelvis (fragment)	1	Poor	2	?	?	None visible.
754	Fibula (shaft)	1	Moderate	2	?	?	Copper staining.
754	Radius (distal shaft)	1	Moderate-Poor	2	?	Juvenile-Adolescent	None visible.
754	Humerus (distal shaft-epicondyles left)	1	Moderate-Poor	2	?	?	None visible.
754	Hand (proximal phalanx)	1	Good	2	?	?	None visible.
754	Skull (fragments)	2	Poor	2	?	?	None visible.
756	Rib (fragment)	1	Poor	1	?	?	None visible.
756	Vertebra (Atlas)	1	Good-Moderate	1	?	Juvenile	None visible.
761	Hand (MC I)	1	Good-Moderate	1	?	?	None visible.
761	Skull (parietal fragment)	1	Moderate	1	?	?	None visible.

766	Tibia (proximal-mid shaft)	1	Good-Moderate	3	?	Juvenile	None visible.
766	Femur (shaft-distal condyles)	1	Moderate	3	?	Adult?	None visible.
766	Humerus (left)	1	Good-Moderate	3	?	?	None visible.
766	Humerus (shaft)	1	Good-Moderate	3	?	Juvenile	None visible.
766	Skull	5	Moderate	3	?	Adult	Post mortem dissection: craniotomy and additional cuts.
766	Mandible (ramus left)	1	Moderate-Poor	3	?	?	None visible.
766	Clavicle (right)	1	Moderate	3	?	?	None visible.
766	Ribs (shaft fragments)	4	Moderate-Poor	3	?	?	None visible.
766	Ribs (rib heads right x 1 & left x 1)	2	Moderate	3	?	Juvenile?	None visible.
766	Vertebrae (cervical body x 1 & neural arch x 1)	2	Moderate	3	?	Juvenile?	Copper staining on body.
766	Sternum (manubrium)	1	Good	3	?	Juvenile	None visible.
766	Foot (Talus x 2)	1	Good-Moderate	3	?	Juvenile?	None visible.
766	Foot (Calcaneus x 1)	1	Moderate	3	?	?	Osteophytic lipping around joint margins.
766	Foot (metatarsals x 2, proximal phalanges x 2)	4	Moderate	3	?	Infant-Juvenile	None visible.

766	Foot (proximal phalanx)	1	Good-Moderate	3	?	?	Copper staining.
766	Unidentifiable fragments	5	Poor	3	?	?	None visible.
772	Hand (distal phalanx)	1	Good	1	?	?	None visible.
779	Vertebrae (thoracic neural arch)	1	Moderate-Poor	1	?	?	None visible.
779	Hand (MC I)	1	Good-Moderate	1	?	?	None visible.
779	Skull (fragments)	4	Moderate-Poor	1	?	?	None visible.
779	Scapula (acromion fragment)	1	Poor	1	?	?	None visible.
779	Long bone (shaft fragment)	1	Poor	1	?	?	None visible.
779	Rib (left)	1	Moderate	1	?	?	None visible.
779	Pelvis (ilium fragments)	2	Poor	1	?	?	None visible.
779	Unidentifiable fragments	3	Poor	1	?	?	None visible.
782	Pelvis (fragments)	8	Moderate-Poor	4	?	?	None visible.
782	Ribs (shaft fragments)	25	Moderate-Poor	4	?	?	None visible.
782	Ribs (rib head fragments)	2	Poor	4	?	?	None visible.
782	Ribs (right x 1 & left x 3)	4	Moderate	4	?	?	Copper staining on a single left rib head.
782	Rib (right x 1)	1	Moderate	4	?	Infant	None visible.

782	Vertebrae (thoracic x 6)	6	Good-Moderate	4	?	?	OA on body facets of a single thoracic vertebra.
782	Vertebrae (lumbar x 2)	2	Moderate	4	?	?	None visible.
782	Vertebra (thoracic body)	1	Moderate	4	?	Juvenile	None visible.
782	Vertebrae (neural arch fragments)	3	Poor	4	?	?	None visible.
782	Skull (fragments)	4	Moderate-Poor	4	?	?	None visible.
782	Mandible	3	Moderate	4	Male?	Old Adult?	A-M tooth loss and socket resorption.
782	Scapula (coracoid and fragment)	2	Moderate-Poor	4	?	?	None visible.
782	Foot (navicular right)	1	Good	4	?	?	None visible.
782	Hand (trapezoid left)	1	Good	4	?	?	None visible.
782	Sternum (sternal body)	1	Good-Moderate	4	?	?	None visible.
782	Ulna (shaft)	1	Moderate-Poor	4	?	?	None visible.
782	Clavicle (left)	1	Moderate	4	?	Adolescent	None visible.
782	Unidentifiable fragments	3	Poor	4	?	?	None visible.
782	Cricoid	1	Moderate-Poor	4	?	?	None visible.
782	Hand (Middle phalanx)	1	Good-Moderate	4	?	?	None visible.

783	Skull (fragment)	1	Moderate	2	?	?	None visible.
783	Vertebra (body)	1	Moderate	2	?	?	Schmorl's nodes.
783	Vertebrae (neural arch fragments)	2	Moderate-Poor	2	?	?	None visible.
783	Pelvis (pubis left x 2)	2	Moderate	2	?	Adult x 2	None visible.
783	Pelvis (pubis right x 1)	1	Moderate	2	?	Adult	None visible.
783	Foot (talus left x 1 & lateral cuneiform right x1)	2	Good-Moderate	2	?	?	None visible.
783	Rib (shaft fragment)	1	Moderate-Poor	2	?	?	None visible.
783	Femur (distal condyle fragment)	1	Poor	2	?	?	None visible.
783	Hand (proximal phalanx)	1	Good-Moderate	2	?	?	None visible.
785	Vertebra (neural arch fragment)	1	Poor	1	?	?	None visible.
787	Sternum (manubrium)	1	Good-Moderate	1	?	?	None visible.
787	Ulna (distal end and distal shaft x 2)	2	Moderate	1	?	?	None visible.
787	Fibula (distal end and distal shaft)	1	Moderate-Poor	1	?	?	None visible.
787	Radius (proximal head)	1	Moderate	1	?	?	None visible.
787	Vertebrae (neural arch	1	Moderate-Poor	1	?	?	None visible.

	fragments)						
787	Scapula (fragments)	2	Poor	1	?	?	None visible.
787	Skull (fragments)	2	Poor	1	?	?	None visible.
787	Ribs (shaft fragments)	2	Poor	1	?	?	None visible.
787	Ribs (rib heads left x 2)	2	Moderate	1	?	?	None visible.
787	Rib (rib head fragment)	1	Poor	1	?	?	None visible.
787	Hand (MC V left x 1 & MV IV left x 1)	2	Moderate	1	?	?	None visible.
787	Hand (Metacarpal fragment)	1	Moderate-Poor	1	?	?	None visible.
791	Humerus (distal shaft and epicondyles left)	1	Moderate	2	?	?	None visible.
791	Femur (shaft)	1	Moderate-Poor	2	?	?	None visible.
791	Pelvis (acetabulum)	1	Moderate	2	?	?	Post-mortem dissection.
791	Mandible (x 1)	2	Moderate	2	?	Mid Adult	A-M tooth loss and socket resorption.
791	Foot (Calcaneus right)	1	Moderate-Poor	2	?	?	None visible.
791	Skull (fragments)	2	Moderate	2	?	?	None visible.
791	Vertebrae (fragments)	5	Moderate-Poor	2	?	?	Possible trace of Schmorl's nodes on extant body fragments.

791	Hand (proximal phalanges)	3	Moderate	2	?	?	None visible.
791	Hand (MC II & MC V)	2	Moderate	2	?	?	None visible.
791	Hand (shaft fragments)	3	Moderate-Poor	2	?	?	None visible.
791	Tibia (proximal shaft?)	1	Poor	2	?	Infant?	None visible.
791	Femur (right)	1	Good-Moderate	2	?	Infant	None visible.
791	Radius (distal end)	1	Moderate	2	?	?	None visible.
795	Ribs (shaft fragments)	2	Moderate-Poor	1	?	?	None visible.
795	Humerus (midshaft-distal epicondyles right)	1	Good-Moderate	1	?	?	None visible.
795	Radius (right)	1	Good-Moderate	1	?	?	None visible.
795	Ulna (proximal head-midshaft right)	1	Good-Moderate	1	?	?	None visible.
795	Scapula (fragment)	1	Moderate-Poor	1	?	?	None visible.
803	Skull (fragments)	3	Moderate-Poor	1	?	Infant	None visible.
803	Fibula (shaft)	1	Moderate	1	?	Infant	None visible.
803	Unidentifiable fragment	1	Poor	1	?	?	None visible.
806	Long bone (shaft fragment)	1	Poor	2	?	?	None visible.
806	Hand (Metacarpal shaft)	1	Moderate-Poor	2	?	?	None visible.

806	Unidentifiable fragment	1	Poor	2	?	?	None visible.
812?	Patella (left)	1	Good	2	?	Adult?	Soft tissue ossification.
812?	Foot (talus right)	1	Good	2	?	Adult?	None visible.
812?	Foot (MTII & IV)	1	Moderate	2	?	?	None visible.
812?	Hand (MTI)	1	Good	2	?	Adult?	None visible.
812?	Hand (proximal phalanges)	3	Good-Moderate	2	?	Adult?	None visible.
812?	Rib (shaft fragment)	1	Moderate-Poor	2	?	?	None visible.
812?	Femur (right proximal-mid shaft)	2	Moderate	2	?	Juvenile?	None visible.
816	Unidentifiable fragment	1	Poor	1	?	?	None visible.
827	Pelvis (right)	1	Moderate	2	?	?	None visible.
827	Femur (shaft)	1	Moderate-Poor	2	?	?	None visible.
827	Sacrum (fragments)	3	Poor	2	?	?	None visible.
827	Pelvis (ischium fragment)	1	Poor	2	?	?	None visible.
827	Patella (right)	1	Good	2	?	?	None visible.
827	Skull (fragments)	5	Moderate	2	?	Juvenile	None visible.
827	Skull (occipital fragment)	1	Moderate	2	?	?	None visible.
831	Hand (distal phalanx)	1	Good-Moderate	1	?	?	None visible.

831	Hand (trapezium x 1, trapezoid x 1)	2	Good	1	?	?	None visible.
833	Skulls (Upper part of crania - frontal/parietals/occipital x 2)	2	Good	2	?	Adult	Post mortem dissection: craniotomy
833	Skull (Lower part of cranium)	1	Good-Moderate	2	Female?	Young Adult?	Post mortem dissection: craniotomy
833	Skull (fragments)	6	Moderate	2	?	?	Post mortem dissection
833	Mandible	1	Moderate	2	Male?	Young Adult?	None visible.
833	Dentition (molar x 1, pre-molar x 2, canines x 3 & incisors x 3)	9	Good-Moderate	2	?	?	Caries on a pre-molar?
833	Vertebrae (Atlas, Axis & cervical x 6)	9	Good-Moderate	2	?	?	Osteophytic lipping around the margins of a single vertebra.
833	Vertebrae (thoracic x 3)	3	Good	2	?	?	Schmorl's nodes.
833	Scapula (left)	1	Good	2	?	Adult?	Post mortem dissection of acromial spine.
833	Scapula (fragment right)	1	Moderate	2	?	?	None visible.
833	Ribs (right x 3)	3	Good-Moderate	2	?	?	None visible.
833	Ribs (left x 4)	4	Good	2	?	?	None visible.
833	Rib (shaft fragment)	1	Moderate	2	?	?	None visible.

833	Clavicle (left)	1	Good	2	?	Adult?	Well healed fracture causing some deformation of the profile of the clavicle.
833	Ulna (proximal head-midshaft x left)	1	Good-Moderate	2	?	?	None visible.
833	Radius (proximal head-midshaft left)	1	Good-Moderate	2	?	?	None visible.
833	Clavicle (sternal end and partial shaft right)	1	Good-Moderate	2	?	?	None visible.
833	Hand (Middle phalanx)	1	Good	2	?	?	None visible.
833	Unidentifiable fragments	2	Poor	2	?	?	None visible.
833	Hand (triquetral right)	1	Good	2	?	?	None visible.
838	Unidentifiable fragment	1	Poor	1	?	?	None visible.
840	Unidentifiable fragments	16	Poor	3	?	?	None visible.
840	Long bone (fragment)	1	Poor	3	?	?	None visible.
840	Pelvis (fragments)	2	Poor	3	?	?	None visible.
840	Vertebra (lumbar)	1	Good	3	?	?	None visible.
840	Foot (MT I right)	1	Good	3	?	?	None visible.
840	Ribs (shaft fragments)	5	Moderate-Poor	3	?	?	None visible.

840	Ribs (left x 1 & right x 1)	2	Moderate	3	?	?	None visible.
840	Femur (proximal head-shaft right)	1	Good-Moderate	3	?	Adult?	None visible.
840	Femur (distal shaft-end left)	1	Moderate	3	?	Adult?	None visible.
840	Tibia (left)	1	Good-Moderate	3	?	Adult?	None visible.
840	Ulnae (left x 1 & right x 1)	3	Moderate-Poor	3	?	?	None visible.
840	Humerus (proximal shaft-distal epicondyles left)	1	Good-Moderate	3	?	?	None visible.
840	Fibulae (shafts x 2)	3	Moderate	3	?	?	None visible.
840	Radius (proximal head)	1	Poor	3	?	?	None visible.
840	Ulna (left)	1	Good-Moderate	3	?	Infant	None visible.
840	Skull (fragmented)	15	Moderate	3	?	?	None visible.
840	Skull (parietal fragments)	2	Moderate	3	?	Juvenile	None visible.
840	Clavicle (fragment)	1	Moderate	3	?	?	None visible.
843	Sternum (sternal body fragment)	1	Good	2	?	?	Post-mortem dissection.
843	Femur (shaft)	1	Moderate	2	?	Infant	Rickets?
845	Pelvis (right)	1	Good	1	Female	Young-Mid Adult	Copper staining.

845	Scapula (left)	1	Good	1	?	Adult?	None visible.
849	Vertebra (lumbar)	1	Moderate	1	?	?	None visible.
850	Skull (fragment)	1	Moderate	1	?	?	None visible.
852	Pelvis (fragments)	6	Moderate-Poor	1	?	?	None visible.
852	Rib (shaft)	1	Moderate	1	?	?	None visible.
855	Vertebrae (Atlas, C5, C6, C7, T1 & T2 x1)	6	Good-Moderate	1	?	Adult?	Found with skeleton [855]. Maybe related to skeleton [771]. Possible OA on vertebral facets and slight osteophytic lipping.
855	Ribs (shafts)	2	Moderate	1	?	?	Found with skeleton [855]. Maybe related to skeleton [771].
855	Patellae (left and right)	2	Good	1	?	?	Found with skeleton [855]. Maybe related to skeleton [771].
855	Hyoid (x 1)	2	Good	1	?	?	Found with skeleton [855]. Maybe related to skeleton [771].
855	Cricoid (x 1)	3	Good-Moderate	1	?	?	Found with skeleton [855]. Maybe related to skeleton [771].
855	Foot (metatarsals x2)	2	Good-Moderate	1	?	?	Found with skeleton [855]. Maybe related to skeleton [771].

855	Hand (phalanges x 2)	2	Good	1	?	?	Found with skeleton [855]. Maybe related to skeleton [771].
855	Dentition (incisor x 1)	1	Good	1	?	?	Found with skeleton [855]. Maybe related to skeleton [771].
855	Hand (left trapezoid x 1)	1	Good-Moderate	1	?	?	Found with skeleton [855]. Maybe related to skeleton [771].
855	Unidentifiable fragment	1	Poor	1	?	?	Found with skeleton [855]. Maybe related to skeleton [771].
856	Sternum (sternal body fragment)	1	Poor	1	?	?	None visible.
857	Femur (distal shaft- condyles)	2	Moderate-Poor	1	?	?	None visible.
857	Fibula (shaft and distal end)	1	Moderate	1	?	Adult?	None visible.
857	Foot (Metatarsals)	3	Moderate	1	?	?	None visible.
857	Hand (MCIII and MCV)	2	Good-Moderate	1	?	?	None visible.
857	Ribs (shafts)	3	Moderate-Poor	1	?	?	None visible.
857	Foot (Intermediate cunieforn and navicular)	2	Moderate	1	?	Adult?	Traces of OA on navicular.
857	Vertabrae (Cervical x 1 & thoracic x 1)	2	Moderate	1	?	Adult?	OA on articular facets.
857	Vertebrae (bodies x 2)	2	Moderate-Poor	1	?	?	None visible.

857	Vertebrae (neural arch fragment)	1	Poor	1	?	?	None visible.
857	Patella (fragment)	1	Poor	1	?	?	None visible.
857	Unidentifiable fragment	8	Poor	1	?	?	None visible.
858	Scapula (fragments)	2	Moderate-Poor	1	?	?	None visible.
859	Scapula (fragment)	1	Poor	1	?	?	None visible.
859	Tibia (left)	1	Good-Moderate	1	?	Juvenile	None visible.
860	Fibula (shaft)	2	Moderate	1	?	?	None visible.
860	Dentition (canines x 2)	2	Moderate	1	?	?	Caries.
860	Unidentifiable fragments	2	Poor	1	?	?	None visible.
862	Fibula (midshaft-distal end)	3	Moderate	3	?	?	None visible.
862	Foot (Lateral cunieform)	1	Moderate	3	?	?	None visible.
862	Foot (phalanges)	2	Moderate-Poor	3	?	?	None visible.
862	Vertebrae (neural arches)	2	Moderate-Poor	3	?	?	None visible.
862	Ribs (shaft fragments)	3	Moderate-Poor	3	?	?	None visible.
862	Ribs (rib head fragments)	3	Poor	3	?	?	None visible.
862	Rib (left)	1	Moderate	3	?	?	None visible.

862	Ribs (right)	2	Moderate	3	?	?	None visible.
862	Vertebrae (Atlas x 1, cervical x 1 & thoracic x 2)	4	Good-Moderate	3	?	Adult?	Copper staining on cervical vertebra.
862	Scapula (right)	1	Moderate-Poor	3	?	?	None visible.
862	Mandible (fragments)	3	Moderate-Poor	3	?	?	None visible.
862	Mandible (x1)	2	Moderate	3	Male?	Young-Mid Adult	A-M tooth loss and socket resorption
862	Skull (fragment)	1	Moderate	3	?	?	P-M dissection.
862	Rib (right)	1	Moderate	3	?	Juvenile	None visible.
862	Pelvis (ilium left)	1	Good	3	?	Juvenile	None visible.
862	Mandible (x 1)	4	Moderate	3	?	Juvenile	None visible.
862	Humerus (distal shaft)	1	Moderate-Poor	3	?	Infant?	None visible.
862	Femur (distal condyles)	1	Moderate-Poor	3	?	Infant?	None visible.
864	Pelvis (ilium right)	1	Good-Moderate	3	?	Juvenile	None visible.
864	Foot (calcaneus left x 1 and talus right x 1)	2	Moderate	3	?	Adult?	None visible.
864	Foot (MTIII & V)	2	Good-Moderate	3	?	?	None visible.
864	Hand (MTIII & MTIV)	2	Good-Moderate	3	?	?	None visible.

864	Foot (Metatarsal)	1	Good-Moderate	3	?	Juvenile?	None visible.
864	Hand (proximal phalanx)	1	Good	3	?	?	None visible.
864	Ribs (shafts)	3	Moderate-Poor	3	?	?	None visible.
864	Humerus (left proximal-distal epicondyles)	1	Good-Moderate	3	?	?	None visible.
864	Humerus (proximal head fragment)	1	Poor	3	?	?	None visible.
864	Ulna (left)	1	Moderate	3	?	?	None visible.
864	Femur (left)	1	Good-Moderate	3	?	Juvenile	None visible.
864	Femur (distal shaft)	1	Moderate	3	?	Infant?	None visible.
864	Vertebrae (lumbar x1 & thoracic x 1)	1	Moderate	3	?	?	Schmorl's nodes.
864	Unidentifiable fragments	3	Poor	3	?	?	None visible.
880	Skull (fragments)	4	Moderate	2	?	Adult?	P-M dissection: Craniotomy
880	Mandible	1	Good-Moderate	2	?	Mid-Old Adult	A-M tooth loss and socket resorption. Caries.
880	Claviculae (2x left)	2	Good-Moderate	2	?	?	None visible.
880	Vertebra (cervical)	1	Good-Moderate	2	?	?	None visible.
880	Cricoid (fragment)	1	Poor	2	?	?	None visible.

880	Ribs (left x 2)	2	Good-Moderate	2	?	?	None visible.
880	Rib (right)	1	Good	2	?	?	None visible.
880	Rib (shaft fragments)	1	Moderate	2	?	?	None visible.
880	Sternum	4	Good-Moderate	2	?	Adult?	P-M dissection.
889	Patella (left)	1	Good-Moderate	1	?	Adult?	Soft tissue ossification.
889	Ulna (right)	1	Good	1	?	Adult	Copper staining on proximal head,
889	Radius (distal shaft and end right)	1	Moderate	1	?	?	None visible.
889	Hand (proximal phalax)	1	Good-Moderate	1	?	?	None visible.
889	Vertebra (lumbar)	1	Good-Moderate	1	?	Adult?	P-M dissection.
889	Rib (left)	1	Moderate	1	?	?	None visible.
889	Rib (head right)	1	Moderate-Poor	1	?	?	None visible.
889	Ribs (shafts)	2	Moderate	1	?	?	None visible.
889	Pelvis (ilium fragment)	1	Poor	1	?	?	None visible.
889	Skull (fragment)	1	Moderate	1	?	?	P-M dissection.
889	Unidentifiable fragment	1	Poor	1	?	?	None visible.
896	Skull (fragments)	29	Moderate-Poor	6	?	?	None visible.

896	Mandible (fragments)	3	Moderate	6	?	?	A-M tooth loss and socket resorption.
896	Pelvis (ilium fragment)	1	Moderate	6	?	?	None visible.
896	Femur (left)	1	Good-Moderate	6	?	Adult	None visible.
896	Ulnae (left x 1 & right x 2)	3	Good-Moderate	6	?	Adult	None visible.
896	Ulna (proximal head-proximal shaft right)	1	Moderate	6	?	Adult	None visible.
896	Radius (left)	1	Moderate	6	?	Adult	None visible.
896	Radius (right proximal head-mid shaft)	1	Moderate	6	?	Adult	None visible.
896	Fibula (midshaft-distal end)	2	Moderate	6	?	Adult?	None visible.
896	Femur (fragments)	3	Moderate-Poor	6	?	?	None visible.
896	Tibia (fragments)	2	Moderate-Poor	6	?	?	None visible.
896	Long bone (shaft fragments)	5	Poor	6	?	?	None visible.
896	Claviculae (left & right)	2	Moderate-Poor	6	?	?	None visible.
896	Femur (shaft)	1	Moderate	6	?	?	None visible.
896	Unidentifiable fragments	24	Poor	6	?	?	None visible.
896	Sternum (Sternal body)	1	Moderate-Poor	6	?	?	None visible.

896	Sternum (manubrium)	1	Good	6	?	?	None visible.
896	Mandible (right ramus)	1	Moderate	6	?	Adult?	None visible.
896	Mandible (fragment)	1	Moderate	6	?	Juvenile	None visible.
896	Clavicle (right)	1	Good	6	?	Infant	None visible.
896	Ribs (right)	5	Moderate	6	?	?	None visible.
896	Ribs (left)	2	Moderate	6	?	?	None visible.
896	Ribs (shaft fragments)	34	Moderate-Poor	6	?	?	Traces of soft tissue ossification on occasional rib ends.
896	Scapulae (left x 2)	2	Moderate	6	?	Adult?	None visible.
896	Scapula (right)	1	Good-Moderate	6	?	Juvenile	None visible.
896	Scapula (fragments)	2	Moderate-Poor	6	?	?	None visible.
896	Vertebrae (Cervical vertebrae x 3)	3	Moderate	6	?	?	None visible.
896	Vertbrae (Lumbar x 2)	2	Moderate-Poor	6	?	?	Severe osteophytic lipping of articular facets of one vertebra.
896	Vertebrae (thoracic x 5)	5	Moderate	6	?	?	None visible.
896	Vertebra (thoracic)	1	Moderate	6	?	Adult?	Severe osteophytic lippin on vertebral body margins. Possible DISH?

896	Vertebrae (neural arches)	2	Moderate	6	?	Juvenile	None visible.
896	Vertebrae (bodies x 3)	3	Moderate-Poor	6	?	?	Possible Schmorl's nodes.
896	Long bone (shaft fragments)	17	Moderate-Poor	6	?	?	None visible.
896	Patellae (left and right)	2	Good-Moderate	6	?	Adult	OA.
896	Tibia (fragments)	3	Poor	6	?	?	None visible.
896	Humerus (fragments)	2	Poor	6	?	?	None visible.
896	Fibula (fragments)	2	Poor	6	?	?	None visible.
896	Radius (fragment)	1	Poor	6	?	?	None visible.
896	Sacrum (fragments)	2	Moderate-Poor	6	?	?	None visible.
896	Pelvis (ilium left x 1 ilium right x 1)	2	Moderate	6	?	Adult?	None visible.
896	Pelvis (ilium right)	1	Moderate	6	?	Juvenile	None visible.
896	Pelvis (pubis right x 3 pubis left x 2)	2	Moderate	6	?	Mid-Old Adult x 4 Young Adult x 1	None visible.
896	Pelvis (Ischium right x 2)	2	Moderate	6	?	Adult?	None visible.
896	Pelvis (ilium fragments)	5	Moderate-Poor	6	?	?	None visible.
896	Pelvis (pubis fragments)	3	Moderate-Poor	6	?	?	None visible.

896	Pelvis (acetabulum fragment)	1	Poor	6	?	?	None visible.
896	Hand (scaphoid left x 1, lunate right x 1, triquetral right x 1, pisiform right x 1, capitate left x 1)	5	Good-Moderate	6	?	?	None visible.
896	Hand (MCII x1, MC shafts x 3)	4	Moderate	6	?	?	None visible.
896	Hand (proximal phalanges x 5, middle phalanges x 5)	10	Good-Moderate	6	?	?	None visible.
896	Foot (lateral cunieform right)	1	Moderate	6	?	?	None visible.
896	Foot (MT III left x 1, MT shafts x 1)	2	Moderate	6	?	?	None visible.
896	Foot (proximal phalanges x 2, middle phalanges x 2)	4	Moderate	6	?	?	None visible.
896	Humerii (shafts x 2)	2	Moderate	6	?	Adult?	None visible.
896	Unidentifiable fragments	3	Poor	6	?	?	None visible.
896	Foot (MT I right)	1	Good	6	?	?	None visible.
896	Femur (right)	1	Good	6	?	Adult	None visible.
896	Femur (proximal head-midshaft left x 1 & right x 1)	2	Good-Moderate	6	?	Adult	None visible.
896	Femur (proximal heads x 3)	3	Good-Moderate	6	?	Adult?	None visible.

896	Femur (shaft fragments)	2	Moderate-Poor	6	?	?	None visible.
896	Tibiae (shafts)	3	Moderate-Poor	6	?	Adult?	None visible.
896	Ulnae (left x 1 & right x 1)	2	Good-Moderate	6	?	Adult	None visible.
896	Radius (right)	1	Good	6	?	Adult	None visible.
896	Radius (left)	1	Moderate	6	?	Juvenile	None visible.
896	Tibia (shaft)	1	Moderate-Poor	6	?	Adult?	None visible.
896	Femur (shaft-distal condyles right)	1	Moderate	6	?	Adult	None visible.
896	Femur (proximal head-shaft right)	1	Moderate	6	?	Adult	None visible.
896	Femur (shaft left)	1	Moderate	6	?	Adult	None visible.
896	Femur (left)	1	Good-Moderate	6	?	Adult	None visible.
896	Long bone (shaft fragments)	6	Poor	6	?	?	None visible.
896	Femur (distal condyles)	1	Poor	6	?	?	None visible.
896	Humerus (distal epicondyles left)	1	Moderate	6	?	?	None visible.
896	Vertebra (neural arch fragment)	1	Moderate-Poor	6	?	?	None visible.
896	Foot (calcaneus right)	1	Moderate-Poor	6	?	?	None visible.
896	Foot (medial cunieform right)	1	Moderate	6	?	?	None visible.

896	Clavicle (left)	1	Moderate	6	?	Juvenile	None visible.
896	Ribs (shaft fragments)	4	Poor	6	?	Juvenile	None visible.
896	Foot (proximal phalanx & distal phalanx)	2	Good	6	?	?	None visible.
896	Unidentifiable fragments	8	Poor	6	?	?	None visible.
896	Sacrum (x 1)	2	Moderate-Poor	6	?	?	Slight osteophytic lipping around centrum.
896	Patellae (left x 1, right x 1)	2	Good	6	?	Adult?	None visible.
896	Pelvis (ischium left x 2)	2	Moderate-Poor	6	?	?	None visible.
896	Pelvis (fragments)	4	Poor	6	?	?	None visible.
896	Dentition (incisor x 1, canine x 1 & pre-molar x 1)	3	Good	6	?	?	None visible.
896	Skull (fragments)	7	Moderate	6	?	?	None visible.
896	Sphenoid (fragments)	2	Moderate	6	?	?	None visible.
896	Skull (occipital)	1	Moderate	6	?	?	None visible.
896	Skull (zygomatic)	1	Moderate	6	?	?	None visible.
896	Skull (frontal x 2)	2	Moderate	6	?	?	None visible.
896	Skull (temporal/occipital/parietal left)	1	Moderate	6	?	Adult?	None visible.

903	Skull	1	Good-Moderate	4	Female?	Mid-Old Adult	None visible.
903	Skull (fragments)	7	Moderate	4	?	?	Post mortem dissection: craniotomy
903	Dentition (molars x 4, canines x 2, incisor x 1)	7	Good	4	?	?	None visible.
903	Mandible	2	Moderate	4	?	?	A-M tooth loss and socket resorption.
903	Tibiae (left proximal head-distal shaft x 1 and right proximal head-distal shaft x 1)	2	Moderate	4	?	?	None visible.
903	Fibula (shaft fragments x 2)	2	Moderate-Poor	4	?	?	Copper staining on 1 x shaft fragment.
903	Fibula (distal shaft and end)	1	Moderate-Poor	4	?	?	Copper staining on shaft.
903	Humerus (left x 1)	2	Good-Moderate	4	?	Adult?	None visible.
903	Femur (right x 1)	1	Moderate	4	?	Infant	None visible.
903	Radius (left x 1)	2	Good-Moderate	4	?	?	Rickets.
903	Radius (right midshaft-distal end x1)	2	Good-Moderate	4	?	?	None visible.
903	Femur (right proximal head-distal shaft)	1	Good-Moderate	4	?	Adult?	None visible.
903	Femur (shaft)	1	Moderate	4	?	?	Copper staining on shaft.

903	Femur (proximal head)	3	Moderate-Poor	4	?	?	None visible.
903	Femur (distal condyles)	1	Moderate-Poor	4	?	?	None visible.
903	Pelvis (fragments)	9	Moderate	4	?	Adult	None visible.
903	Unidentifiable fragments	76	Poor	4	?	?	None visible.
903	Skull (fragments)	8	Moderate-Poor	4	?	?	Traces of post-mortem dissection on one fragment.
903	Skull (fragments)	4	Poor	4	?	Infant	None visible.
903	Dentition (incisors x 4, pre-molar x 1)	5	Good	4	?	?	None visible.
903	Hand (Metacarpals x4)	4	Good-Moderate	4	?	?	Copper staining on one metacarpal.
903	Hand (phalanx)	1	Good	4	?	?	None visible.
903	Foot (Metatarsal V)	1	Good-Moderate	4	?	?	None visible.
903	Femur (left)	1	Good-Moderate	4	?	Infant	None visible.
903	Radius (proximal head)	1	Good-Moderate	4	?	?	None visible.
903	Fibula (shaft fragment)	1	Poor	4	?	?	None visible.
903	Ribs (shafts)	60	Moderate-Poor	4	?	?	None visible.
903	Ribs (left x 10)	10	Moderate	4	?	?	None visible.

903	Ribs (right x 2)	2	Moderate	4	?	?	None visible.
903	Vertebrae (lumbar x2)	2	Good-Moderate	4	?	?	None visible.
903	Vertebrae (thoracic x3)	3	Good-Moderate	4	?	?	None visible.
903	Vertebrae (cervical x 2)	2	Good-Moderate	4	?	?	None visible.
903	Vertebra (lumbar body)	1	Good-Moderate	4	?	?	Post-mortem dissection.
903	Vertebrae (neural arch fragments)	3	Moderate	4	?	?	None visible.
903	Vertebra (body)	1	Good	4	?	Neonate	None visible.
903	Vertebra (atlas - dens facet)	1	Moderate-Poor	4	?	?	None visible.
903	Sternum (sternal body)	1	Good	4	?	?	None visible.
903	Sternum (manubrium)	1	Good-Moderate	4	?	?	None visible.
903	Clavicle (left acromial head-shaft)	1	Good-Moderate	4	?	?	None visible.
903	Sacrum (fragments)	4	Moderate-Poor	4	?	?	None visible.
903	Pelvis (ilium fragment)	1	Poor	4	?	?	None visible.
903	Scapula (fragments)	8	Moderate-Poor	4	?	?	Post-mortem dissection on one fragment.
903	Skull (fragments)	4	Moderate	4	?	Adult	P-M dissection: Craniotomy

903	Skull (fragment)	1	Moderate	4	?	Juvenile?	None visible.
903	Mandible	1	Good	4	Male?	Mid-Old Adult	A-M tooth loss and socket resorption.
903	Vertebrae (Atlas x 2, Thoracic body x 1, Lumbar body x 1)	4	Moderate	4	?	Adult	None visible.
903	Clavicle (shaft)	1	Moderate	4	?	?	P-M dissection
903	Pelvis (pubis fragment)	1	Moderate	4	?	Old Adult	None visible.
903	Ribs (shaft fragments)	26	Moderate-Poor	4	?	?	Traces of ossified soft tissue on rib ends
903	Ribs (head fragments)	2	Poor	4	?	?	None visible.
903	Rib (right)	1	Moderate	4	?	?	None visible.
903	Ribs (left)	7	Moderate	4	?	?	None visible.
903	Fibula (shaft fragments)	2	Moderate	4	?	?	None visible.
903	Radius (proximal head)	1	Moderate	4	?	?	None visible.
903	Foot (metatarsal)	1	Good	4	?	?	Slightly warped profile.
903	Scapulae (right x 1 & left x 2)	3	Moderate	4	?	Adult	None visible.
903	Scapula (fragments)	4	Moderate-Poor	4	?	?	None visible.
903	Unidentifiable fragments	20	Poor	4	?	?	Traces of copper staining.

909	Foot (medial cunieform left)	1	Good	1	?	?	None visible.
911	Radius (shaft)	1	Moderate-Poor	2	?	?	None visible.
911	Radius (distal shaft and end right)	1	Good-Moderate	2	?	?	None visible.
911	Ulna (distal shaft-distal end)	1	Good-Moderate	2	?	?	None visible.
911	Ulna (shaft fragment)	1	Moderate	2	?	?	None visible.
911	Ulna (proximal head-shaft x 1)	2	Moderate	2	?	Adult?	None visible.
911	Fibula (shaft-distal end left x 1)	2	Moderate	2	?	Adult?	None visible.
911	Fibula (proximal head-midshaft)	1	Moderate	2	?	Adult?	None visible.
911	Tibia (left)	1	Moderate	2	?	Adult	Lamellar bone on shaft.
911	Femur (left)	1	Good-Moderate	2	?	Adult	None visible.
911	Mandible (right)	1	Good	2	?	Young Adult?	Caries?
911	Dentition (molar)	1	Good	2	?	Adult	None visible.
911	Foot (MT I left x 1 & MT III left x 1)	2	Moderate	2	?	?	None visible.
911	Foot (proximal phalanx)	1	Good-Moderate	2	?	?	None visible.
911	Vertebra (thoracic)	1	Moderate	2	?	?	None visible.
911	Vertebra (body)	1	Moderate-Poor	2	?	?	None visible.

911	Ribs (right x 1 & shaft fragment x 1)	2	Poor	2	?	?	None visible.
911	Skull (fragments)	2	Poor	2	?	?	None visible.
911	Skull (fragments)	2	Poor	2	?	Infant?	None visible.
911	Pelvis (ischium left)	1	Moderate	2	?	Infant	None visible.
911	Femur (proximal head)	1	Poor	2	?	?	None visible.
911	Hand (Hamate right)	1	Good	2	?	?	None visible.
921	Pelvis (ilium fragments)	4	Moderate-Poor	2	?	?	None visible.
921	Femur (left)	1	Moderate	2	?	Juvenile	None visible.
921	Humerus (right)	1	Good-Moderate	2	?	Adult?	None visible.
921	Femur (right x 1)	2	Good-Moderate	2	?	Adult	Robust individual.
935	Tibiae (left x 1 & right x 1)	2	Good-Moderate	3	?	Adult?	None visible.
935	Tibiae (shaft-distal end right x 1 & shaft-distal end left x 1)	2	Good-Moderate	3	?	Adult?	Rickets of right tibia.
935	Tibiae (midshaft-distal end right x 1 & midshaft-distal end left x 1)	3	Moderate	3	?	Adult?	None visible.
935	Humerus (shaft fragments)	2	Good-Moderate	3	?	?	None visible.
935	Skull (fragments)	3	Moderate	3	?	?	None visible.

935	Unidentifiable fragments	3	Poor	3	?	?	None visible.
935	Clavicle (left)	1	Good-Moderate	3	?	?	None visible.
935	Tibia (shaft fragment)	1	Poor	3	?	?	None visible.
935	Fibula (proximal-mid shaft)	1	Good-Moderate	3	?	Juvenile	None visible.
935	Fibulae (shafts x 2)	2	Moderate	3	?	?	None visible.
935	Fibulae (shaft-distal end right x 1 & shaft-distal end left x 1)	2	Good-Moderate	3	?	?	None visible.
935	Femur (shaft)	1	Moderate	3	?	?	None visible.
935	Rib (shaft fragment)	1	Moderate-Poor	3	?	?	None visible.
935	Rib (left)	1	Moderate	3	?	?	None visible.
935	Vertebrae (thoracic fragments)	2	Moderate-Poor	3	?	?	None visible.
935	Pelvis (ischium left)	1	Moderate	3	?	?	None visible.
935	Foot (talus left)	1	Good-Moderate	3	?	?	None visible.
935	Patella (right)	1	Good	3	?	?	None visible.
935	Hand (metacarpals x 2)	2	Moderate-Poor	3	?	?	None visible.
935	Foot (metatarsal)	1	Moderate-Poor	3	?	?	None visible.
944	Femur (right)	1	Moderate	3	?	Adult?	None visible.

944	Femur (right x 1)	2	Moderate	3	?	Juvenile	None visible.
944	Femur (right x 1 & left x 1)	2	Good-Moderate	3	?	Infant-Juvenile	None visible.
944	Tibia (right x 1 & left x 1)	2	Good-Moderate	3	?	Infant-Juvenile	None visible.
944	Humerus (right)	1	Good-Moderate	3	?	Juvenile	None visible.
944	Radius (right)	1	Moderate	3	?	Adult?	None visible.
944	Fibulae (x 2)	2	Good-Moderate	3	?	Juvenile	None visible.
944	Fibula (shaft fragments)	2	Moderate-Poor	3	?	?	None visible.
944	Claviculae (left x 1 & right x 1)	2	Good-Moderate	3	?	Adult?	None visible.
944	Skull (fragments)	5	Moderate-Poor	3	?	?	None visible.
944	Rib (shaft fragment)	1	Moderate	3	?	Juvenile?	None visible.
944	Vertebra (cervical?)	1	Moderate	3	?	?	None visible.
944	Unidentifiable fragments	5	Poor	3	?	?	None visible.
944	Femur (left x 1 & right x 1)	2	Good-Moderate	3	?	Adult	Rickets? Soft tissue ossification on greater trochanter of left femur.
944	Femur (left)	1	Moderate	3	?	Adult?	None visible.
944	Femur (distal shaft-condyles left)	1	Good-Moderate	3	?	Adult?	None visible.
959	Patella (right)	1	Good	1	?	?	None visible.

962	Vertebrae (lumbar x 4)	4	Good-Moderate	1	?	Adult	Traces of porosity on one lumbar vertebra.
962	Vertebrae (thoracic x3)	3	Moderate	1	?	Adult	Traces of osteophytic lipping around body margins.
962	Vertebrae (cervical x 3)	3	Good-Moderate	1	?	Adult?	Severe OA on articular facets on a single vertebra.
962	Ulna (left)	1	Good-Moderate	1	?	Adult?	None visible.
962	Hand (proximal phalanges x 6, middle phalanges x 4, distal phalanx x 1)	10	Good-Moderate	1	?	?	None visible.
962	Rib (shaft)	1	Moderate-Poor	1	?	?	None visible.
962	Rib (left)	1	Moderate	1	?	Adult?	None visible.
962	Rib (right)	1	Good-Moderate	1	?	Adult?	Traces of soft tissue ossification on rib ends.
962	Long bone (fragments)	1	Moderate-Poor	1	?	?	None visible.
962	Pelvis (pubis left)	1	Moderate	1	?	Old Adult?	None visible.
962	Femur (proximal head right x 1 & proximal head unsided x 1)	2	Moderate	1	?	?	None visible.
962	Sacrum	1	Moderate-Poor	1	?	Adult?	None visible.
962	Vertebra (cervical neural arch fragment)	1	Moderate-Poor	1	?	?	None visible.

962	Hand (MC I right x 1, MC II right x 1, MC III right x 1, MC IV right x 1, MC V right x 1)	5	Good-Moderate	1	?	?	Osteophytic lipping on distal head on MC II.
962	Hand (trapezoid right x 1, capitate right x 1, hamate right x 1, scaphoid right x 1, scaphoid left x 1 & lunate left x 1)	6	Good-Moderate	1	?	?	None visible.
970	Humerus (proximal shaft fragment)	1	Moderate	5	?	?	None visible.
970	Humerus (shaft-distal epicondyles right)	1	Good-Moderate	5	?	Adult?	None visible.
970	Ulnae (right x 2)	2	Moderate-Poor	5	?	Adult?	None visible.
970	Tibia (shaft right)	1	Moderate	5	?	?	None visible.
970	Fibula (shaft-distal end right)	1	Moderate	5	?	?	None visible.
970	Femora (proximal heads-shafts right x 2)	3	Good-Moderate	5	?	Adult?	Possible robust individual.
970	Femur (shaft right)	1	Moderate	5	?	Adult?	None visible.
970	Femur (proximal head-midshaft left x 1)	4	Good-Moderate	5	?	Adult?	None visible.
970	Mandible (fragment)	1	Moderate	5	?	Juvenile	None visible.
970	Rib (shaft fragment)	1	Moderate-Poor	5	?	?	None visible.
970	Pelvises (left x 2)	2	Moderate	5	?	?	None visible.

970	Femur (distal shaft-distal condyles)	1	Good-Moderate	5	?	Mid-Old Adult?	Severe OA. Eburnation and remodelling is extensive.
970	Tibia (right)	1	Good	5	?	Adult?	None visible.
970	Scapula (left)	1	Good-Moderate	5	?	Infant?	None visible.
970	Fibula (shaft fragment)	1	Moderate-Poor	5	?	?	None visible.
970	Tibia (shaft fragment)	1	Moderate-Poor	5	?	?	None visible.
970	Vertebra (lumbar)	1	Moderate	5	?	?	Possible porosity on body.
970	Rib (left)	1	Moderate	5	?	?	None visible.
970	Ribs (shaft fragments)	3	Moderate-Poor	5	?	?	None visible.
970	Foot (MT I right x 2)	2	Good-Moderate	5	?	?	None visible.
979	Fibula (shaft-distal end left)	1	Good-Moderate	3	?	Adult?	Soft tissue ossification on malleolus.
979	Ulna (shaft fragment)	1	Moderate-Poor	3	?	?	None visible.
979	Radii (proximal heads- proximal shafts x 2)	2	Moderate	3	?	Adult?	None visible.
979	Tibia (proximal hand-midshaft right)	1	Moderate	3	?	Adult?	None visible.
979	Tibia (proximal shaft-midshaft right)	1	Good-Moderate	3	?	Juvenile	Possible post mortem dissection.

979	Humerus (proximal head left)	1	Good-Moderate	3	?	?	None visible.
979	Humerus (right)	1	Good	3	?	Adult?	None visible.
979	Femur (right)	1	Good-Moderate	3	?	?	None visible.
979	Skull (fragments)	14	Good-Moderate	3	?	?	Copper staining on two parietal fragments.
979	Mandible (fragment)	1	Good-Moderate	3	?	Mid Adult?	None visible.
979	Tibia (proximal head-proximal shaft fragment)	1	Moderate	3	?	?	None visible.
979	Sacrum (fragment)	1	Moderate-Poor	3	?	?	None visible.
979	Sternum (manubrium)	1	Good-Moderate	3	?	?	Soft tissue ossification on clavicular articulations.
979	Clavicle (shaft left)	1	Moderate	3	?	?	None visible.
979	Scapula (fragments)	3	Moderate-Poor	3	?	?	None visible.
979	Scapula (left)	1	Good-Moderate	3	?	Juvenile	None visible.
979	Hand (proximal phalanx)	1	Good-Moderate	3	?	?	None visible.
979	Foot (MT II right x 2, MT III right x 1, MT IV right x 1)	4	Good-Moderate	3	?	?	Profile of MT IV is slightly warped.
979	Foot (metatarsal unsided)	1	Moderate-Poor	3	?	?	None visible.
979	Foot (MT IV right)	1	Good-Moderate	3	?	Juvenile	None visible.

979	Femur (distal condyle fragment)	1	Moderate-Poor	3	?	?	None visible.
979	Ribs (shaft fragments)	5	Moderate-Poor	3	?	?	None visible.
979	Ribs (left x 5)	5	Good-Moderate	3	?	?	None visible.
979	Rib (rib head right)	1	Moderate	3	?	?	None visible.
979	Vertebrae (neural arch fragments)	2	Moderate-Poor	3	?	?	None visible.
979	Vertebra (thoracic)	1	Good-Moderate	3	?	?	None visible.
979	Pelvis (fragments)	7	Moderate-Poor	3	?	?	None visible.
979	Pelvis (pubis left)	1	Good-Moderate	3	?	Juvenile	None visible.
979	Unidentifiable fragments	12	Poor	3	?	?	None visible.
982	Skull (fragments)	4	Poor	1	?	?	Infant?
988	Foot (calcaneus right)	1	Moderate	3	?	?	None visible.
988	Vertebra (lumbar)	1	Moderate	3	?	?	None visible.
988	Sacrum	1	Good-Moderate	3	Male?	Adult	None visible.
988	Rib (shaft right)	1	Good-Moderate	3	?	?	None visible.
988	Humerus (shaft)	1	Moderate	3	?	?	None visible.
988	Radius (right)	1	Moderate	3	?	?	Copper staining.

988	Ulna (proximal head-proximal shaft right)	1	Good-Moderate	3	?	?	None visible.
988	Mandible	1	Good	3	?	Juvenile	None visible.
988	Hand (middle phalanx)	1	Good-Moderate	3	?	?	None visible.
988	Foot (Calcaneus left x 2 & right x 1)	3	Good-Moderate	3	?	?	None visible.
988	Unidentifiable fragments	2	Poor	3	?	?	None visible.
988	Hand (scaphoid left x 1, trapezium left x 1, capitate left x 1 & right x 1)	4	Good	3	?	?	None visible.
988	Hand (proximal phalanges x 4, middle phalanges x 5 & distal phalanx x 1)	9	Good-Moderate	3	?	?	None visible.
988	Foot (MT I right x 2, MT III left x 1, MT IV left x 1 & MT V right x 2)	5	Good-Moderate	3	?	?	Severely twisted profile of MT IV.
988	Hand (MC I right x 2, MC II left x 1, MC III left x 1, MC IV right x 1 & metacarpal fragment x 1)	5	Moderate	3	?	?	Slight osteophytic lipping on joint margin of distal end of a single MC I.
988	Hand (Metacarpal)	1	Good	3	?	?	Severe remodelling at proximal end of MC. Joint surfaces utterly altered. Result of unfixed dislocation?

988	Foot (proximal phalanges x 3, middle phalanx x 1)	4	Good-Moderate	3	?	?	None visible.
988	Foot (Talus left)	1	Good-Moderate	3	?	?	None visible.
988	Pelvis (fragments)	9	Moderate-Poor	3	?	?	Possible osteophytic lipping on margin of acetabulum fragment.
988	Rib (right)	1	Moderate	3	?	Adult?	None visible.
988	Ribs (shaft fragments)	5	Poor	3	?	?	None visible.
988	Fibula (proximal head-proximal shaft right)	1	Good-Moderate	3	?	Adult?	None visible.
988	Vertebra (lumbar neural arch fragment)	1	Moderate-Poor	3	?	?	None visible.
988	Vertebra (body)	1	Moderate	3	?	?	Severe porosity and osteophytic lipping on body.
988	Clavicle (right)	1	Good-Moderate	3	?	?	None visible.
988	Skull (fragments)	6	Moderate	3	?	?	None visible.
989	Femur (right)	1	Good	2	?	Adult	None visible.
989	Tibia (shaft left)	1	Moderate	2	?	Adult?	None visible.
989	Tibia (right)	1	Good-Moderate	2	?	Adult?	None visible.
989	Humerus (shaft-distal epicondyles right)	1	Good-Moderate	2	?	?	None visible.

989	Ulna (midshaft-distal end right)	1	Good-Moderate	2	?	?	None visible.
989	Fibula (shaft)	1	Moderate	2	?	?	None visible.
989	Fibula (shaft-distal end left)	1	Good-Moderate	2	?	?	None visible.
989	Pelvises (right x 3)	3	Good-Moderate	2	?	Young Adults? x 2	None visible.
995	Foot (Metatarsal IV)	1	Good	1	?	Juvenile	None visible.
1000	Sacrum	1	Good-Moderate	1	?	Adult?	None visible.
1003	Rib (shaft)	1	Good-Moderate	1	?	Infant	None visible.
1007	Femur (right)	1	Moderate	2	?	Juvenile	None visible.
1007	Vertebra (thoracic)	1	Moderate-Poor	2	?	Adult?	None visible.
1007	Pelvis (Pubis fragment)	1	Moderate	2	?	?	None visible.
1009	Vertebra (thoracic x 1)	2	Poor	1	?	?	None visible.
1010	Foot (metatarsals x 2)	2	Moderate	2	?	?	None visible.
1010	Pelvis (left x 1)	3	Moderate-Poor	2	?	Mid Adult	None visible.
1010	Vertebrae (atlas x 2)	2	Good	2	?	?	None visible.
1010	Vertebra (lumbar?)	1	Poor	2	?	?	None visible.
1010	Femur (shafts)	3	Moderate	2	?	?	None visible.

1010	Skull (fragment)	1	Moderate	2	?	?	None visible.
1010	Fibula (shaft)	2	Poor	2	?	?	None visible.
1018	Femur (right)	1	Good-Moderate	1	?	Adult	None visible.
1018	Femur (distal shaft-condyles)	1	Moderate	1	?	?	None visible.
1018	Pelvis (pubis)	1	Moderate	1	?	?	None visible.
1018	Fibula (shaft fragment)	1	Moderate	1	?	?	None visible.
1018	Mandible (x 1)	2	Moderate	1	?	Young Adult?	None visible.
1019	Vertebrae (lumbar x 6)	7	Moderate	6	?	Adult	Severe OA on inferior articular facets and osteophytic lipping on body margins of a single lumbar vertebra.
1019	Vertebrae (thoracic x 4)	4	Moderate	6	?	Adult	Severe OA on lateral processes articular facets and osteophytic lipping on body margins of a single vertebra.
1019	Skull (fragments)	9	Moderate	6	?	Infant-Juvenile	None visible.
1019	Skull (fragment)	9	Moderate	6	?	?	None visible.
1019	Mandible (x 2)	2	Good-Moderate	6	Male?	Adult x 2	A-M tooth loss and socket resorption.
1019	Foot (Calcaneus left)	1	Moderate	6	?	Adult?	None visible.

1019	Tibia (proximal head)	1	Moderate-Poor	6	?	?	None visible.
1019	Tibia (proximal head left)	1	Moderate	6	?	Infant?	None visible.
1019	Sacrum	1	Good-Moderate	6	?	Adult?	None visible.
1019	Scapula (right x2)	2	Moderate	6	?	?	None visible.
1019	Pelvis (right)	1	Good-Moderate	6	?	Adult	None visible.
1019	Pelvis (ischium left)	1	Moderate	6	?	?	None visible.
1019	Pelvis (ilium fragment)	1	Poor	6	?	?	None visible.
1019	Long bone (fragments)	8	Poor	6	?	?	None visible.
1019	Foot (MT II x1, MT III left x 1, MT III right x 1, MT IV left x 1, MT IV right x 1 & MT V x1, uncertain metatarsal x 1)	7	Moderate	6	?	?	Copper staining on uncertain metatarsal.
1019	Hand (MC III, MC IV & MC V)	3	Moderate	6	?	?	None visible.
1019	Hand (proximal phalanges x 2 & middle phalanx x 1)	3	Good-Moderate	6	?	?	None visible.
1019	Ribs (shaft fragments)	7	Moderate	6	?	?	None visible.
1019	Ribs (left x 3)	3	Moderate	6	?	?	None visible.
1019	Ribs (right x 2)	2	Good-Moderate	6	?	?	Possible ulcer on right first rib (ovoid plaque visible on anterior surface)

1019	Humerus (shaft-distal epicondyles right)	1	Moderate	6	?	Adult?	None visible.
1019	Humerus (shaft fragment)	1	Poor	6	?	?	None visible.
1019	Femur (right)	1	Moderate	6	?	Juvenile	None visible.
1019	Radii (shaft-distal end left x 1 & shaft-distal end right x 1)	3	Moderate	6	?	Adult	None visible.
1019	Radius (proximal head-shaft right)	1	Good-Moderate	6	?	Adult?	None visible.
1019	Radius (shaft)	1	Moderate-Poor	6	?	Juvenile?	None visible.
1019	Femur (proximal head-midshaft left x 1 & right x 1)	5	Moderate	6	?	Adult?	None visible.
1019	Mandible (x 1)	2	Moderate	6	?	Old Adult?	Edentulous?
1019	Tibia (distal shaft-end)	1	Good-Moderate	6	?	?	None visible.
1019	Tibia (shaft fragments)	3	Moderate-Poor	6	?	?	None visible.
1019	Tibia (distal shaft-distal end)	1	Moderate-Poor	6	?	?	None visible.
1019	Femur (shaft)	1	Moderate-Poor	6	?	?	None visible.
1019	Radius (left)	1	Good-Moderate	6	?	Infant	None visible.
1019	Skull (temporal left)	1	Good	6	?	?	None visible.
1019	Humerus (right)	1	Good-Moderate	6	?	Adult	None visible.

1019	Mandible	1	Good-Moderate	6	?	Mid-Old Adult	A-M tooth loss and socket resorption.
1019	Foot (MT I right)	1	Good-Moderate	6	?	?	None visible.
1019	Foot (distal phalanx)	1	Good	6	?	?	None visible.
1019	Tibia (shaft)	1	Moderate	6	?	Infant-Juvenile	None visible.
1021	Femur (mid shaft-distal end right x 1)	3	Moderate	2	?	Juvenile	None visible.
1021	Tibia (right x 1)	6	Moderate	2	?	Juvenile	None visible.
1021	Fibula (fragments)	11	Moderate	2	?	Juvenile	None visible.
1021	Patella (left)	1	Good	2	?	Adult	Slight porosity on joint surface. Ossified soft tissue on superior aspect of patella.
1021	Feet (Calcaneus left x 1 & right x 1, Talus left x 1 & right x 1, Navicular left x 1 & right x 1, Medial cunieform left x 1 & right x 1, Cuboid right x 1, Intermediate cunieform right x 1, Lateral cunieform right x 1, MT I left x 1 & right x 1, MT II left x 1 & right x 1, MT III left x 1 & right x 1, MT IV left x 1 & right x 1, MT V left x 1)	28	Good-Moderate	2	?	Juvenile	None visible.
1021	Feet (Proximal phalanges x 6 &	8	Good	2	?	Juvenile	None visible.

	Distal phalanx x 1)						
1021	Hand (Metacarpal shaft)	1	Good-Moderate	2	?	Juvenile	None visible.
1021	Tibia (Distal epiphysis left)	1	Good-Moderate	2	?	Juvenile	None visible.
1021	Unidentifiable fragment	1	Poor	2	?	?	None visible.
1023	Pelvis (pubis)	1	Good-Moderate	1	?	Infant	None visible.
1037	Foot (cuboid left)	1	Moderate	1	?	?	None visible.
1043	Vertebra (cervical)	1	Good-Moderate	1	?	?	None visible.
1053	Rib (shaft fragment)	1	Moderate	4	?	?	None visible.
1053	Sacrum (x 2)	2	Moderate	4	Male? x 1 & Female x 1	Adult	None visible.
1053	Femur (shaft)	1	Moderate	4	?	?	None visible.
1053	Humerus (left)	1	Good-Moderate	4	?	Adult?	None visible.
1053	Fibula (proximal head-midshaft)	1	Good-Moderate	4	?	Adult?	None visible.
1053	Ulna (right)	1	Good-Moderate	4	?	Adult?	Slight osteophytic lipping around distal end.
1053	Radius (right)	1	Good-Moderate	4	?	Adult?	None visible.
1053	Skull (x 1)	4	Moderate	4	?	?	None visible.

1053	Foot (Calcaneus left)	1	Moderate	4	?	?	None visible.
1053	Pelvis (ischium right)	1	Moderate	4	?	?	None visible.
1053	Vertebra (thoracic)	1	Good-Moderate	4	?	Adult?	Schmorl's nodes. Slight osteophytic lipping on body margins.
1053	Femur (proximal head)	1	Moderate-Poor	4	?	?	None visible.
1053	Vertebra (body)	1	Poor	4	?	?	None visible.
1053	Scapula (fragment left)	1	Poor	4	?	?	None visible.
1053	Rib (shaft fragment)	1	Moderate-Poor	4	?	?	None visible.
1053	Rib (left)	1	Moderate	4	?	?	None visible.
1053	Ulna (proximal head-midshaft right)	1	Moderate	4	?	Adult?	None visible.
1053	Sacrae (x 2)	5	Moderate-Poor	4	?	Adult?	Traces of copper staining on one sacrum.
1053	Mandible (x 2)	2	Moderate	4	?	Adult?	A-M tooth loss and socket resorption. Possible abscess.
1053	Skull (fragments)	13	Moderate	4	?	Adult?	None visible.
1053	Foot (lateral cunieform left)	1	Good-Moderate	4	?	?	None visible.
1053	Hand (Middle phalanx)	1	Good	4	?	?	None visible.

1058	Pelvis (ilium left)	1	Moderate	2	?	Adult	None visible.
1058	Ribs (shaft fragments)	2	Moderate-Poor	2	?	?	None visible.
1058	Scapula (fragment)	1	Poor	2	?	?	None visible.
1058	Femur (left)	1	Good-Moderate	2	?	Adult	None visible.
1058	Femur (shaft)	1	Moderate-Poor	2	?	?	None visible.
1058	Radius (right proximal shaft- distal end)	1	Moderate	2	?	?	None visible.
1058	Humerus (left x 1)	2	Good-Moderate	2	?	Adolescent- Young Adult	None visible.
1058	Humerus (shaft)	1	Moderate-Poor	2	?	?	None visible.
1058	Tibia (proximal shaft-distal end right)	1	Moderate	2	?	?	None visible.
1058	Tibia (proximal head- distal shaft right)	1	Moderate	2	?	Adult	Lamellar bone deposits on shaft (periostitis?)
1059	Tibia (right x 1)	2	Good-Moderate	2	?	Juvenile	None visible.
1059	Tibia (left x 1)	2	Good-Moderate	2	?	Adult	None visible.
1059	Tibia (proximal shaft-distal end left)	1	Good-Moderate	2	?	Adult?	None visible.
1059	Tibia (distal shaft-end left)	1	Moderate	2	?	?	None visible.

1060	Rib (shaft fragment)	1	Poor	1	?	?	None visible.
1064	Ulna (right x 1)	2	Moderate	5	?	Adult?	None visible.
1064	Veterbrae (thoracic x 2)	2	Moderate	5	?	?	None visible.
1064	Rib (left)	1	Moderate	5	?	?	None visible.
1064	Foot (MT V and MT shaft)	2	Moderate	5	?	?	None visible.
1064	Foot (proximal phalanges)	2	Moderate	5	?	?	None visible.
1064	Vertebra (lumbar)	1	Good-Moderate	5	?	Juvenile	None visible.
1064	Ribs (shaft fragments)	3	Moderate-Poor	5	?	Juvenile	None visible.
1064	Rib (left)	1	Moderate-Poor	5	?	Juvenile	None visible.
1064	Skull (fragment)	1	Moderate-Poor	5	?	Juvenile	None visible.
1064	Humerus (right x 1)	2	Good-Moderate	5	?	Infant	None visible.
1064	Tibia	1	Good	5	?	Neonate- Infant	None visible.
1064	Tibia	1	Good	5	?	Infant	None visible.
1064	Fibula	1	Good-Moderate	5	?	Infant	None visible.
1064	Foot (Metatarsal)	1	Good-Moderate	5	?	Infant	None visible.
1064	Skull (fragments)	14	Moderate	5	?	Juvenile	None visible.

1064	Mandible (fragments)	3	Moderate	5	?	Adult?	None visible.
1064	Scapulae (right x 2)	3	Moderate	5	?	?	None visible.
1064	Scapula (fragments)	6	Moderate-Poor	5	?	?	None visible.
1064	Ulna (right x 1)	2	Moderate	5	?	?	Soft tissue ossification on proximal head.
1064	Ulna (right proximal head-distal shaft)	1	Moderate	5	?	?	None visible.
1064	Humerus (right)	1	Good-Moderate	5	?	Juvenile	None visible.
1064	Femur (proximal shaft right)	1	Good-Moderate	5	?	Juvenile	None visible.
1064	Pelvis (fragment)	1	Moderate-Poor	5	?	?	None visible.
1064	Hand (metacarpal shaft)	1	Moderate-Poor	5	?	?	None visible.
1064	Long bone (shaft fragments)	4	Poor	5	?	?	None visible.
1064	Radius (shaft)	1	Moderate	5	?	?	None visible.
1064	Vertebra (lumbar)	1	Moderate	5	?	Adult	Porosity and osteophytic lipping on body.
1064	Rib (rib head right)	1	Moderate	5	?	?	None visible.
1064	Rib (shaft)	1	Moderate-Poor	5	?	?	None visible.
1064	Unidentifiable fragments	18	Poor	5	?	?	None visible.

1064	Tibia (proximal shaft-distal end right)	1	Moderate	5	?	?	None visible.
1064	Tibia (proximal head-proximal shaft left)	1	Moderate-Poor	5	?	?	None visible.
1064	Tibia (distal shaft-distal end right)	1	Moderate	5	?	?	None visible.
1064	Tibia (shaft)	1	Moderate-Poor	5	?	?	None visible.
1064	Tibia (fragments)	5	Poor	5	?	?	None visible.
1068	Rib (left)	1	Moderate	1	?	Juvenile?	None visible.
1068	Sacrum (fragments)	2	Moderate-Poor	1	?	Juvenile?	None visible.
1068	Skull (fragment)	1	Poor	1	?	?	None visible.
1078	Femur (shaft and condyle fragments)	4	Poor	1	?	?	Found with skeleton [1078]
1088	Mandible	1	Moderate-Poor	1	?	Old Adult	A-M tooth loss and socket resorption. Found with skeleton [1088]
1089	Mandible (left side)	1	Good-Moderate	1	?	Neonate	Copper staining on mandible. Found with skeleton [1089].
1092	Skull (fragments)	2	Good-Moderate	3	?	Old Adult	Post mortem dissection: craniotomy
1092	Mandible (left)	1	Moderate	3	?	Infant-Juvenile	None visible.

1092	Long bone (shaft fragments)	3	Poor	3	?	?	None visible.
1092	Foot (calcaneus fragment)	1	Moderate-Poor	3	?	?	None visible.
1092	Pelvis (ischium left)	1	Moderate	3	?	?	None visible.
1092	Vertebrae (cervical x 3)	3	Moderate	3	?	Adult?	OA on vertebral articular facet on one vertebra.
1092	Ribs (shaft fragments)	2	Moderate-Poor	3	?	?	None visible.
1092	Rib (left)	1	Moderate	3	?	?	None visible.
1092	Hand (Metacarpal shafts x 3, MCV x 1)	4	Moderate-Poor	3	?	?	None visible.
1092	Hand (proximal phalanges)	2	Moderate-Poor	3	?	?	None visible.
1092	Humerus (left)	1	Good-Moderate	3	?	Infant	None visible.
1092	Scapula (fragments)	3	Poor	3	?	?	None visible.
1094	Vertebra (Atlas)	1	Good-Moderate	1	?	Adult?	Osteophytic lipping on dens facet.
1097	Foot (MTI)	1	Moderate	1	?	?	None visible.
1097	Ribs (shafts)	2	Moderate	1	?	?	None visible.
1097	Rib (right)	1	Moderate	1	?	?	None visible.
1097	Tibia (proximal head-midshaft right)	1	Moderate	1	?	Adult?	None visible.

1097	Fibula (proximal shaft- distal end)	1	Good-Moderate	1	?	Adult?	None visible.
1097	Ulna (proximal head-midshaft left)	1	Moderate	1	?	Adult?	None visible.
1097	Radius (right)	1	Moderate-Poor	1	?	Adult?	None visible.
1101	Clavicle (right)	1	Good-Moderate	1	?	Adult?	None visible.
1101	Scapula (left)	1	Moderate-Poor	1	?	?	None visible.
1102	Femur (distal shaft)	1	Moderate	2	?	Juvenile	Found with skeleton [1102].
1102	Skull (occipital?)	1	Good	2	?	Neonate	Found with skeleton [1102]. Possibly part of [1090].
1102	Foot (metatarsal)	1	Good	2	?	Neonate	Found with skeleton [1102]. Possibly part of [1090].
1105	Clavicle (left mid shaft- acromial end)	1	Moderate	1	?	?	Found with skeleton [1105].
1107	Skull	1	Good-Moderate	4	Female?	Old Adult	None visible.
1107	Scapula (acromion left)	1	Moderate	4	?	?	None visible.
1107	Unidentifiable fragments	14	Poor	4	?	?	None visible.
1107	Scapula (fragments)	4	Moderate-Poor	4	?	?	None visible.
1107	Scapula (left)	1	Moderate	4	?	Infant-Juvenile	None visible.

1107	Skull (fragments)	21	Good-Moderate	4	?	Adult?	None visible.
1107	Skull (fragments)	4	Moderate	4	?	Infant	None visible.
1107	Skull (fragments)	1	Moderate	4	?	Juvenile	None visible.
1107	Mandible (x 1)	2	Good-Moderate	4	Male?	Adult	A-M tooth loss and socket resorption.
1107	Pelvis (fragments)	2	Poor	4	?	?	None visible.
1107	Long bone (shaft fragments)	8	Poor	4	?	?	None visible.
1107	Ribs (shafts fragments)	3	Moderate-Poor	4	?	?	None visible.
1107	Rib (left)	1	Moderate	4	?	?	None visible.
1107	Foot (Calcaneus left)	1	Good	4	?	Adult?	None visible.
1107	Radius (proximal heads x 3)	3	Moderate	4	?	?	None visible.
1107	Radius (midshaft- distal end right x 2)	2	Moderate	4	?	?	None visible.
1107	Vertebrae (cervical x 2)	2	Moderate	4	?	?	None visible.
1107	Vertebra (lumbar)	1	Moderate-Poor	4	?	?	None visible.
1107	Hand (Metacarpals shafts x 2)	2	Moderate-Poor	4	?	?	None visible.
1107	Hand (MC1)	1	Good-Moderate	4	?	Adult?	Severe OA.
1107	Hand (pisiform)	1	Good	4	?	?	None visible.

1107	Sacrum (fragment)	1	Poor	4	?	?	None visible.
1109	Foot (left)	1	Moderate	1	?	Adult?	Found with skeleton [1109]
1112	Tibia (shaft right)	1	Moderate	2	?	Adult?	None visible.
1112	Ribs (shafts)	2	Moderate-Poor	2	?	?	None visible.
1112	Rib (right)	1	Moderate	2	?	?	None visible.
1112	Scapula (fragments)	2	Moderate-Poor	2	?	?	None visible.
1112	Pelvis (pubis right x 2, pubis left x 1)	3	Moderate	2	?	Mid-Old Adult x 2	None visible.
1112	Pelvis (ischium right x 1)	1	Moderate	2	?	Adult?	None visible.
1112	Hand (MC I x 2)	2	Good	2	?	?	None visible.
1112	Hand (proximal phalanges x 2, middle phalanx x 1)	3	Good-Moderate	2	?	?	None visible.
1112	Foot (proximal phalanx)	1	Good	2	?	?	None visible.
1112	Tibia (left?)	1	Good-Moderate	2	?	Infant	None visible.
1114	Unidentifiable fragment	1	Poor	1	?	?	None visible.
1114	Foot (intermediate cunieform)	1	Moderate	1	?	?	None visible.
1114	Hand (middle phalanges)	1	Good-Moderate	1	?	?	None visible.
1127	Sacrum (fragment)	1	Poor	2	?	?	None visible.

1127	Sternum (sternal body)	1	Moderate	2	?	?	None visible.
1127	Vertebra (neural arch)	1	Poor	2	?	?	None visible.
1127	Unidentifiable fragment	1	Poor	2	?	?	None visible.
1127	Pelvis (pubis fragment)	1	Moderate-Poor	2	?	?	None visible.
1127	Rib (shaft fragment)	1	Poor	2	?	?	None visible.
1127	Vertebrae (cervical)	2	Good-Moderate	2	?	Adult	Porosity and osteophytic lipping on both vertebrae.
1127	Ulna (left?)	2	Moderate	2	?	Infant	None visible.
1131	Femur (right x 1)	2	Good-Moderate	1	?	Adolescent	None visible.
1131	Skull (frontal)	1	Moderate-Poor	1	?	?	None visible.
1131	Hand (proximal phalanx)	1	Good	1	?	?	None visible.
1133	Pelvis (right ilium fragment)	1	Poor	1	?	Young-Mid Adult	Found with skeleton [1133]
1137	Tibiae (shaft fragments)	2	Moderate-Poor	3	?	Adult?	Traces of copper staining on one shaft fragment.
1137	Tibia (left proximal shaft-midshaft)	1	Moderate	3	?	Juvenile	None visible.
1137	Tibia (proximal epiphysis)	1	Good-Moderate	3	?	Juvenile	None visible.
1137	Femur (distal epiphysis)	1	Good-Moderate	3	?	Juvenile	None visible.

1137	Fibula (shaft fragment)	1	Moderate-Poor	3	?	?	None visible.
1137	Ulna (distal shaft-distal end)	1	Moderate	3	?	?	None visible.
1137	Long bone (shaft fragments)	2	Moderate-Poor	3	?	Juvenile?	None visible.
1137	Rib (right x 1)	1	Good-Moderate	3	?	Infant	None visible.
1137	Vertebra (thoracic)	1	Moderate	3	?	Adult?	None visible.
1137	Skull (fragment)	1	Moderate-Poor	3	?	?	None visible.
1137	Unidentifiable fragment	1	Poor	3	?	?	None visible.
1147	Ulna (proximal-mid shaft)	1	Moderate-Poor	1	?	?	Found with skeleton [1147]
1147	Humerus (right shaft and distal epicondyles)	1	Good-Moderate	1	?	?	Found with skeleton [1147]
1147	Radius (shaft)	1	Moderate-Poor	1	?	?	Found with skeleton [1147]
1152	Rib (shaft fragment)	1	Moderate	1	?	?	Copper staining.
1152	Humerus (midshaft-distal epicondyles left)	1	Good-Moderate	1	?	?	None visible.
1152	Fibulae (shafts x 2)	2	Moderate-Poor	1	?	?	None visible.
1160	Skull (fragment)	1	Moderate-Poor	1	?	?	None visible.
1160	Humerus (proximal shaft-distal epicondyles left)	1	Moderate	1	?	?	None visible.

1160	Fibula (shaft)	1	Poor	1	?	?	None visible.
1165	Skull	1	Good	1	Male?	Young-Mid Adult	See [1165] A & B. A-M tooth loss and socket resorption on mandible.
1167	Mandible	1	Good-Moderate	8	?	Old Adult?	A-M tooth loss and socket resorption.
1167	Scapula (right)	1	Good-Moderate	8	?	?	None visible.
1167	Sacrae (x 2)	2	Moderate	8	?	?	None visible.
1167	Pelvis (ilium left)	1	Moderate-Poor	8	?	?	None visible.
1167	Vertebrae (cervical x 1 & thoracic x 1)	2	Good-Moderate	8	?	Adult?	Severe porosity and osteophytic lipping on cervical vertebra.
1167	Foot (Talus left)	1	Moderate	8	?	Adult?	Severe osteophytic lipping around joint surface margins.
1167	Ribs (left x 4 & right x 10)	14	Good-Moderate	8	?	?	None visible.
1167	Ribs (shaft fragments)	7	Moderate-Poor	8	?	?	None visible.
1167	Rib (left)	1	Moderate	8	?	Infant	None visible.
1167	Rib (bifid rib shaft fragment)	1	Moderate-Poor	8	?	?	None visible.
1167	Vertebrae (C1, C2 and thoracic vertebra neural arch fragment)	3	Good-Moderate	8	?	Infant-Juvenile	None visible.

1167	Vertebrae (C2, C3, T1-T3, T9, T11 & L1-L5)	12	Good	8	?	Adult	T9 - Osteophytic lipping on inferior body margin. Slight traces of OA on left body facets. T11 - traces of OA on left body facet. L1 - Copper staining.
1167	Foot (MT I & MT V)	2	Moderate	8	?	Adult?	Severe OA on distal joint surface of MT I.
1167	Hand (proximal phalanges)	2	Moderate-Poor	8	?	?	None visible.
1167	Hand (middle phalanges)	2	Moderate-Poor	8	?	?	None visible.
1167	Foot (proximal phalanges)	6	Moderate	8	?	?	None visible.
1167	Foot (distal phalanges)	4	Moderate	8	?	?	Possible OA on the proximal joint surfaces of two distal phalanges.
1167	Mandible	1	Good-Moderate	8	?	Old Adult?	A-M tooth loss and socket resorption. Potentially edentulous.
1167	Foot (left calcaneus x 1, right calcaneus x 1 & right talus x 1)	3	Moderate	8	?	Adult	Severe OA on joint surfaces of all three elements.
1167	Ulna (right? Proximal head and proximal shaft)	1	Poor	8	?	?	None visible.
1167	Tibiae (distal ends right & left x 1)	2	Moderate	8	?	Adult?	Severe osteophytic lipping around the joint surface margins.
1167	Skull (occipital)	1	Good-Moderate	8	?	Infant	None visible.

1167	Femur (condyle fragment)	1	Moderate-Poor	8	?	?	None visible.
1167	Humerus (proximal head?)	1	Poor	8	?	?	None visible.
1167	Sternum (sternal body)	1	Good	8	?	?	None visible.
1167	Vertebra (neural arch fragment)	1	Poor	8	?	?	None visible.
1167	Clavicle (right)	1	Good	8	?	Adult?	None visible.
1167	Claviculae (left x 1 & right x 1)	2	Good-Moderate	8	?	Infant	None visible.
1167	Femur (shaft left?)	1	Moderate	8	?	Neonate?	None visible.
1167	Pelvis (pubis right)	1	Good-Moderate	8	?	Infant	None visible.
1167	Fibulae (shafts x 2)	2	Moderate	8	?	Juvenile	None visible.
1167	Long bone (shaft fragments)	2	Poor	8	?	Juvenile?	None visible.
1167	Unidentifiable fragments	3	Poor	8	?	?	None visible.
1167	Unidentifiable fragments	26	Poor	8	?	?	None visible.
1167	Hand (MC I left x 1, MC II left x 1, MCIII right x 1, MC IV right x 2 & MC V right x 1)	5	Good-Moderate	8	?	?	None visible.
1167	Hand (scaphoid left x1, scaphoid right x1, lunate left x 1, triquetral right x 1, trapezium left x 2, hamate right x 1)	7	Good	8	?	?	None visible.

1167	Hand (proximal phalanges x 9)	9	Good-Moderate	8	?	?	None visible.
1167	Hand (middle phalanges x 5)	5	Good-Moderate	8	?	?	None visible.
1167	Hand (distal phalanx)	1	Good	8	?	?	None visible.
1167	Foot (MT I left x 2, MT II right x1, MT II left x 1, MT III right x 5, MT III left x 2, MT IV left x 3, MT IV right x 2, MT V left x 2 & MT V right x 3)	21	Moderate	8	?	?	None visible.
1167	Foot (Metatarsal shaft)	1	Moderate-Poor	8	?	?	None visible.
1167	Foot (proximal phalanges x 8, middle phalanges x 5 & distal phalanges 3)	16	Moderate	8	?	?	None visible.
1167	Foot (Calcaneus right x 1, calcaneus left x 1, talus left x 1, talus right x 1, cuboid left x 2, cuboid right x 2, navicular left x 1, navicular right x 2, medial cunieform left x 1, medial cunieform right x 2, intermediate cunieform left x 2, intermediate cunieform right x 1, lateral cunieform right x 1, cunieform fragments x 2)	20	Moderate-Poor	8	?	?	Osteophytic lipping on joint margins around joint surfaces of naviculars.
1167	Skull (fragments)	2	Poor	8	?	?	None visible.
1167	Vertebra (Atlas)	1	Good	8	?	?	None visible.

1167	Vertebrae (bodies x 2, neural arches x 3, atlas x 1)	6	Good-Moderate	8	?	Infant	None visible.
1167	Vertebra (body x 1, neural arch fragment x 1)	2	Moderate-Poor	8	?	Adult?	Porosity and osteophytic lipping on body.
1167	Tibia (distal end fragment)	1	Poor	8	?	?	None visible.
1167	Ulna (proximal head)	1	Moderate-Poor	8	?	?	None visible.
1167	Femur (condyle fragment)	1	Poor	8	?	?	None visible.
1167	Radius (distal end?)	1	Poor	8	?	?	None visible.
1167	Tibiae (left x 1 & right x 1)	2	Good-Moderate	8	?	Infant	None visible.
1167	Humerus (right?)	1	Moderate	8	?	Neonate?	None visible.
1167	Fibula (shaft)	1	Moderate	8	?	Infant	None visible.
1167	Ribs (left x 2)	2	Moderate	8	?	?	None visible.
1167	Rib (right x 1)	1	Moderate	8	?	?	None visible.
1167	Ribs (shaft fragments)	13	Moderate-Poor	8	?	?	None visible.
1167	Dentition (molar)	1	Good	8	?	Juvenile	None visible.
1167	Pelvis (fragments)	5	Poor	8	?	?	None visible.
1167	Tibia (proximal head fragment)	1	Poor	8	?	?	None visible.

1167	Patellae (left x 1, right x 1)	2	Good-Moderate	8	?	Adult?	Osteophytic lipping around the joint surface on right patella.
1167	Tibia (left)	1	Good-Moderate	8	?	Juvenile	None visible.
1167	Femur (right)	1	Good-Moderate	8	?	Juvenile	None visible.
1167	Pelvis (ilium)	1	Moderate-Poor	8	?	?	None visible.
1167	Humerii (right x 2 & left x 1)	3	Good-Moderate	8	?	Adult x 3	None visible.
1167	Humerii (shaft and distal epicondyles left x 1 & right x 1)	2	Moderate	8	?	Adult x 2	None visible.
1167	Tibia (shafts left x 1 & right x 1)	2	Moderate	8	?	Adult x 2	None visible.
1167	Femur (shaft right x 1)	1	Moderate	8	?	Adult?	None visible.
1167	Femur (distal shaft & condyles right x 1)	1	Moderate	8	?	Adult?	None visible.
1167	Femur (proximal head and shaft x 1)	1	Moderate	8	?	Adult?	None visible.
1167	Fibula (shaft-distal end left x 1 & right x 1)	2	Moderate	8	?	Adult?	None visible.
1167	Fibula (shaft fragment)	1	Poor	8	?	?	None visible.
1167	Radius (right x 4)	4	Good-Moderate	8	?	Adult?	None visible.

1167	Radius (right)	1	Good-Moderate	8	?	Adult	Severe osteophytic lipping and remodelling around margin of distal joint surface.
1167	Radius (left)	1	Good-Moderate	8	?	Adult?	None visible.
1167	Ulna (right x 2)	2	Good	8	?	Adult?	None visible.
1167	Ulna (proximal head-shaft x 2)	2	Good-Moderate	8	?	Adult?	None visible.
1167	Ulna (left)	1	Good-Moderate	8	?	Adult?	None visible.
1174	Vertebra (lumbar?)	1	Moderate	2	?	?	None visible.
1174	Mandible	2	Good-Moderate	2	?	Adult?	A-M tooth loss and socket resorption.
1174	Radius (shaft-distal end left)	1	Moderate-Poor	2	?	?	None visible.
1174	Humerus (left)	1	Moderate	2	?	?	None visible.
1174	Humerus (distal shaft-distal end left)	1	Good-Moderate	2	?	?	None visible.
1174	Humerii (distal shafts x 2)	2	Moderate-Poor	2	?	?	None visible.
1182	Foot (Metatarsal)	1	Moderate	1	?	?	None visible.
1189	Vertebra (lumbar body?)	1	Poor	1	?	?	None visible.
1189	Rib (right)	1	Moderate	1	?	?	None visible.
1189	Radius (shaft)	1	Poor	1	?	Juvenile	None visible.

1198	Long bone (shaft fragments)	2	Poor	3	?	?	None visible.
1198	Tibia (proximal shaft-midshaft left)	1	Good-Moderate	3	?	Infant	None visible.
1198	Foot (MT IV right)	1	Moderate	3	?	?	None visible.
1198	Radius (proximal head x 2)	2	Moderate	3	?	?	None visible.
1198	Fibula (shaft fragments)	3	Moderate-Poor	3	?	?	None visible.
1198	Fibula (distal shaft-distal end left)	1	Moderate	3	?	?	None visible.
1198	Unidentifiable fragments	1	Poor	3	?	?	None visible.
1198	Skull fragments	2	Good-Moderate	3	?	?	None visible.
1198	Pelvis (ischium right x 1)	1	Good	3	?	Infant	None visible.
1198	Humerus (shaft-distal epicondyles right)	1	Moderate-Poor	3	?	Adult?	None visible.
1198	Tibia (shaft-distal end right)	1	Moderate	3	?	Adult?	None visible.
1198	Vertebrae (thoracic x 1 & lumbar x 2)	3	Moderate	3	?	?	Severe porosity and Schmorl's nodes on all three vertebrae and osteophytic lipping on body margins and copper staining on one lumbar vertebra.
1198	Sacrum (S1)	1	Good-Moderate	3	?	Juvenile	None visible.

1198	Sacrum	1	Good-Moderate	3	Male?	Adult?	None visible.
1199	Fibula (shafts x 2)	2	Moderate	1	?	?	None visible.
1199	Ulna (proximal head-midshaft left)	1	Good-Moderate	1	?	Adult?	Severe infection. Osteomyelitis?
1199	Skull (x 1)	3	Moderate	1	?	Adult?	Post-mortem dissection - indicative of a craniotomy.
1199	Vertebra (Axis)	1	Good-Moderate	1	?	?	None visible.
1199	Pelvis (ilium fragment right x 1)	1	Moderate	1	?	Adult	None visible.
1199	Pelvis (fragment left x 1)	1	Moderate	1	?	Adult	None visible.
1204	Long bone (shaft fragment)	1	Poor	3	?	?	None visible.
1204	Scapula (fragment)	1	Moderate-Poor	3	?	?	None visible.
1204	Ribs (left x 2)	2	Moderate	3	?	?	None visible.
1204	Ribs (left x 2)	2	Good-Moderate	3	?	Juvenile?	None visible.
1204	Rib (shaft fragment)	1	Poor	3	?	?	None visible.
1204	Foot (Cuboid left)	1	Moderate	3	?	?	None visible.
1204	Vertebrae (neural arches)	2	Good-Moderate	3	?	Infant-Juvenile	None visible.
1204	Vertebra (Cervical)	1	Moderate	3	?	Adult	Severe porosity and osteophytic lipping on body.

1204	Fibula (shaft fragment)	1	Moderate-Poor	3	?	?	None visible.
1204	Tibia (shaft right)	1	Moderate	3	?	Juvenile	None visible.
1204	Tibia (left)	1	Good	3	?	Infant	None visible.
1204	Fibula (shaft)	1	Good-Moderate	3	?	Infant?	None visible.
1204	Hand (Metacarpal)	1	Moderate	3	?	?	None visible.
1207	Scapula (left)	3	Moderate-Poor	1	?	?	Found with skeleton [1207]
1207	Humerus (left)	2	Moderate	1	?	?	Found with skeleton [1207]
1207	Ulna (left)	1	Good-Moderate	1	?	?	Found with skeleton [1207]
1207	Radius (left)	2	Good-Moderate	1	?	?	Found with skeleton [1207]
1207	Hand (Metacarpals x 6, Carpals x 4, proximal phalanges x 6, middle phalanx x 1, distal phalanges x 2)	19	Good-Moderate	1	?	?	Found with skeleton [1207]
1207	Unidentifiable fragments	3	Poor	1	?	?	Found with skeleton [1207]
1209	Ulnae (left x 1 & right x 1)	2	Good	1	?	Adult?	None visible.
1209	Skull (fragment)	1	Moderate	1	?	?	None visible.
1209	Tibia (shaft-distal end right)	1	Moderate	1	?	Adult?	None visible.
1209	Humerus (shaft-	1	Good-Moderate	1	?	Adult?	None visible.

	distalepicondyles left x 1)						
1209	Radius (shaft)	1	Good-Moderate	1	?	?	None visible.
1209	Radius (proximal head-midshaft right)	1	Good-Moderate	1	?	?	None visible.
1211	Humerus (shaft)	1	Moderate-Poor	1	?	?	Found with skeleton [1211].
1221	Rib (right)	1	Good-Moderate	2	?	Juvenile	None visible.
1221	Rib (right)	1	Moderate	2	?	Adult?	None visible.
1221	Rib (shaft fragments)	2	Poor	2	?	?	None visible.
1221	Vertebra (lumbar neural arch fragment)	1	Poor	2	?	?	None visible.
1236	Vertebrae (cervical x 2)	1	Moderate	1	?	?	Porosity and osteophytic lipping on one of the vertebrae. Found with skeleton [1236].
1236	Unidentifiable fragments	2	Poor	1	?	?	Found with skeleton [1236].
1242	Pelvis (right)	1	Moderate	2	Male?	Mid Adult?	Found with skeletons [1242] and [1243]
1242	Pelvis (fragments)	2	Poor	2	?	?	Found with skeletons [1242] and [1243]
1242	Femur (left proximal-mid shaft)	1	Moderate	2	?	Adult?	Found with skeletons [1242] and [1243]. Severe infection (osteomyelitis? osteitis?).

1242	Femur (right proximal head-mid shaft)	1	Good-Moderate	2	?	Adult?	Found with skeletons [1242] and [1243]
1242	Ulna (shaft)	1	Poor	2	?	?	Found with skeletons [1242] and [1243]
1242	Radius (shafts x 2)	2	Poor	2	?	?	Found with skeletons [1242] and [1243]
1242	Radius (left shaft - distal end)	1	Moderate	2	?	Adult?	Found with skeletons [1242] and [1243]
1242	Radius (right shaft - distal end)	1	Moderate	2	?	Adult?	Found with skeletons [1242] and [1243]
1242	Ulna (distal end and shaft)	1	Moderate	2	?	Adult?	Found with skeletons [1242] and [1243]
1242	Femur (condyle fragment)	1	Poor	2	?	?	Found with skeletons [1242] and [1243]
1446?	Skull (fragment)	1	Moderate	1	?	?	None visible.
1446?	Dentition (canine x 1 & pre-molar x 1)	2	Good	1	?	?	Caries on canine.
1446?	Hand (MC II left)	1	Good-Moderate	1	?	?	None visible.
1446?	Rib (shaft fragments)	4	Poor	1	?	?	None visible.
1446?	Ribs (rib heads right)	3	Moderate	1	?	?	None visible.
1446?	Vertebrae (body fragment1)	1	Moderate-Poor	1	?	?	None visible.

1446?	Vertebrae (Atlas, Thoracic x 3)	4	Good	1	?	?	None visible.
1446?	Tibia (proximal head fragment)	1	Poor	1	?	?	None visible.
+	Vertebra (arch)	1	Good	1	?	Neonate	Unknown context.
1137 / 1142	Skull	1	Good-Moderate	1	Male	Young-Mid Adult	A-M tooth loss and socket resorption on maxilla.
537 / 1067	Ribs (shaft fragments)	35	Good-Moderate	1	?	?	Found with skeletons [537] & [1067].
537 / 1067	Ribs (rib head fragments)	7	Moderate	1	?	?	Found with skeletons [537] & [1067]. OA on 1 x rib head articular facet.
537 / 1067	Hand (metacarpal shafts)	2	Poor	1	?	?	Found with skeletons [537] & [1067].
537 / 1067	Hand (phalanges shafts)	3	Poor	1	?	?	Found with skeletons [537] & [1067].
537 / 1067	Sternum (sternal body)	1	Good-Moderate	1	?	?	Found with skeletons [537] & [1067].
537 / 1067	Scapula (fragments)	3	Poor	1	?	?	Found with skeletons [537] & [1067].
537 / 1067	Femur (shaft x 1)	2	Moderate-Poor	1	?	?	Found with skeletons [537] & [1067].
537 / 1067	Humerus (shaft & distal epicondyles)	1	Moderate	1	?	?	Found with skeletons [537] & [1067].

537 / 1067	Radius (shaft)	1	Poor	1	?	?	Found with skeletons [537] & [1067].
537 / 1067	Vertebrae (fragments)	6	Poor	1	?	?	Found with skeletons [537] & [1067].
537 / 1067	Vertebrae (2 x thoracic)	2	Good-Moderate	1	?	?	Found with skeletons [537] & [1067].
537 / 1067	Vertebrae (1 x Atlas & 1 x Axis)	2	Good	1	?	?	Found with skeletons [537] & [1067]. Osteophytosis and joint deformation on articular facets of both vertebrae.
537 / 1067	Unidentifiable fragments	26	Poor	1	?	?	Found with skeletons [537] & [1067].
Crypt 15	Rib (fragment)	1	Poor	1	?	?	None visible.
Crypt 15	Scapula (fragment)	1	Poor	1	?	?	None visible.
Crypt 15	Unidentifiable fragment	1	Poor	1	?	?	None visible.
Crypt 16	Sacrum (S1)	1	Good	1	?	Juvenile	None visible.

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APPENDIX 2 - THE METAL AND SMALL FINDS

By Märit Gaimster

The vast majority of excavated metal and small finds were associated with the extended cemetery on site in the mid- to late 19th century, comprising large amounts of coffin fittings but also elements of burial clothing and other personal objects from individual burials. A smaller number of objects represent residual finds in the form of accidental losses or rubbish disposal from the local community in the late 18th and 19th centuries. The finds are discussed by phase below, with cemetery material further displayed in three tables. Table 1 provides a brief catalogue of all finds from individual burials; Table 2 presents the coffin grips in terms of types and frequency; and Table 3 gives detailed information of finds other than coffin fittings from burials.

PHASE 3: MID-18TH TO MID-19TH CENTURIES

Only a small number of metal or small finds were retrieved from this phase. The large E-W aligned ditch [1233]/[1247] produced a handful of finds, including a probable late 18th- or 19th century penny (sf 140). In addition, three burials excavated on the S side of the original cemetery wall, are presumed to date from the period of use of the cemetery in the late 18th to early 19th centuries. Two of these burials, both within grave cut [1191], produced evidence of coffins and coffin fittings. In the case of the lower skeleton [1211] only coffin nails were recovered, while skeleton [1193] was associated with a single curved coffin grip of the most frequent type recovered from the site (CCS2a). Coffin grips and other fittings will be discussed further below with the finds from Phase 5 burials.

Metal and small finds from Phase 3

context	sf	description	pot date	recommendations
731	72	copper-alloy disc button; slightly domed; diam. 22mm	1850-1900	x-ray
	78	copper-alloy disc button; complete with loop for fastening; diam. 17mm	1850-1900	x-ray
800		iron ?strap; two pieces; W 35mm	1780-1810	x-ray
824		iron ?nail; L 70mm	n/a	x-ray
850		iron strap; W 25mm; L205mm	1810-1840	x-ray
858		iron nail; L 130mm	n/a	discard
921	351	iron shoe patten; oval flat-section ring with one raised arm for fixing present; 90 x 105mm	1790-1830	x-ray

931		iron coffin grip; CCS type 2a; W 105mm	n/a	
968	110	copper-alloy button; heavily corroded; diam. 14mm	19th century	x-ray
970		iron rectangular-section bar/fitting; tapering at both ends; L 240mm	1820	x-ray
975		iron coffin grip; CCS type 2a; W 95mm	n/a	
978		iron coffin grip; CCS type 2a; incomplete	1780-1830	
979		iron strap mount; fragment only, with two <i>in-situ</i> nails for fixing; W 30mm		discard
988	119	ivory tang-hafted cutlery handle with flat end; tapering fragment only	1825-1900	
	159	copper-alloy tube/ chape; tapering fragment only; L 50mm+	1825-1900	x-ray
		iron nail/pin; heavily corroded; L 160mm	1825-1900	x-ray
1007	114	copper-alloy button; corroded fragment only	1770-1900	x-ray
1010	141	?tinned copper-alloy/tombac disc button with loop for fastening; diam. 29mm	1790-1840	x-ray
	142	copper-alloy tube/chape; three corroded fragments	1790-1840	x-ray
1019	123	copper-alloy ?finger ring of D-section strap; diam. 23mm	1850-1900	
	124	?tinned copper-alloy/tombac disc button; conical setting for wire loop; diam. 18mm; 18th-century type	1850-1900	
	128	copper-alloy annular buckle; complete sturdy form with round-section body and buckle pin; diam. 48mm	1850-1900	x-ray
	160	copper-alloy chape/finial; tapering with in-situ wooden core; L 20mm	1850-1900	x-ray
	326	copper-alloy D-section strips/mounts; three; L 80–150mm	1850-1900	x-ray
		iron ?strap; W 20mm	1850-1900	x-ray
		iron coffin grip; CCS type 2a; incomplete	1850-1900	
		iron nails; eight incomplete	1850-1900	discard
1058	148	copper-alloy ?button; heavily corroded; diam. 18mm	n/a	x-ray
1137		substantial cast-iron strap/mount; two nails for fixing extant at end; W 40mm; L 165mm+	1770-1840	
		iron coffin grip; small curved grip; incomplete	1770-1840	
1199		iron nail; L 110mm	1850-1900	discard
1206	162	copper-alloy halfpenny; reverse with shield to right; ?18th century	n/a	clean for ident
	163	copper-alloy fitting/implement; sturdy tubular body with central longitudinal perforation; transverse bars, with a central vertical 'spike', at each end forming feet/rest; L 155mm; feet L 100mm	n/a	further ident

PHASE 4: MID-19TH CENTURY CONSTRUCTION OF CRYPTS

Around 40 metal and small finds came from Phase 4 contexts, including five coffin grips likely to be residual from the existing late 18th- and early 19th-century burial ground. The remaining finds are strongly dominated by dress accessories, particularly buttons (sf 72, 78, 110, 114, 124, 141 and 148) but there is also a possible copper-alloy finger ring (sf 123) and a complete annular copper-alloy buckle (sf 128). An iron shoe patten, formed of an oval ring with raised arms that would have been fixed to a wooden sole (sf 351). This type of patten was in use from the 17th century onwards, with the oval ring form replacing an earlier patten with 'crinkled' edge around 1720 (Goodall 1993). It is possible that some of the buttons, at least, originate from disturbed burials but, along with other fragments and fittings, the dress accessories are more likely to represent accidental losses or rubbish disposal by the local inhabitants of the area. More substantial finds are represented by a structural fitting in the form of a cast-iron strap mount (context [1137]) and a hollow tubular copper-alloy implement on transverse feet (sf 163). The function of this object is not clear, but it may represent a kitchen or fireside implement of some sort (cf. Lindsay 1970).

Like the coffin grips, the majority of metal and small finds are likely to date from the late 18th and early 19th centuries; a copper-alloy halfpenny (sf 162) is likely 18th-century, as is at least one of the copper-alloy buttons which has a characteristic conical setting for the wire loop (sf 124: Noël Hume 1969, fig. 23 type 8; cf. sf 47 from grave fill of SK 37). A pair of copper-alloy dividers from Crypt 15 (sf 40), however, may possibly relate to the construction of the crypts in Phase 4.

Metal and small finds from Phase 4

context	sf	description	pot date	recommendations
731	72	copper-alloy disc button; slightly domed; diam. 22mm	1850-1900	x-ray
	78	copper-alloy disc button; complete with loop for fastening; diam. 17mm	1850-1900	x-ray
800		iron ?strap; two pieces; W 35mm	1780-1810	x-ray
824		iron ?nail; L 70mm	n/a	x-ray
850		iron strap; W 25mm; L205mm	1810-1840	x-ray
858		iron nail; L 130mm	n/a	discard
921	351	iron shoe patten; oval flat-section ring with one raised arm for fixing present; 90 x 105mm	1790-1830	x-ray
931		iron coffin grip; CCS type 2a; W 105mm	n/a	

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968	110	copper-alloy button; heavily corroded; diam. 14mm	19th century	x-ray
970		iron rectangular-section bar/fitting; tapering at both ends; L 240mm	1820	x-ray
975		iron coffin grip; CCS type 2a; W 95mm	n/a	
978		iron coffin grip; CCS type 2a; incomplete	1780-1830	
979		iron strap mount; fragment only, with two <i>in-situ</i> nails for fixing; W 30mm		discard
988	119	ivory tang-hafted cutlery handle with flat end; tapering fragment only	1825-1900	
	159	copper-alloy tube/ chape; tapering fragment only; L 50mm+	1825-1900	x-ray
		iron nail/pin; heavily corroded; L 160mm	1825-1900	x-ray
1007	114	copper-alloy button; corroded fragment only	1770-1900	x-ray
1010	141	?tinned copper-alloy/tombac disc button with loop for fastening; diam. 29mm	1790-1840	x-ray
	142	copper-alloy tube/chape; three corroded fragments	1790-1840	x-ray
1019	123	copper-alloy ?finger ring of D-section strap; diam. 23mm	1850-1900	
	124	?tinned copper-alloy/tombac disc button; conical setting for wire loop; diam. 18mm; 18th-century type	1850-1900	
	128	copper-alloy annular buckle; complete sturdy form with round-section body and buckle pin; diam. 48mm	1850-1900	x-ray
	160	copper-alloy chape/finial; tapering with in-situ wooden core; L 20mm	1850-1900	x-ray
	326	copper-alloy D-section strips/mounts; three; L 80–150mm	1850-1900	x-ray
		iron ?strap; W 20mm	1850-1900	x-ray
		iron coffin grip; CCS type 2a; incomplete	1850-1900	
		iron nails; eight incomplete	1850-1900	discard
1058	148	copper-alloy ?button; heavily corroded; diam. 18mm	n/a	x-ray
1137		substantial cast-iron strap/mount; two nails for fixing extant at end; W 40mm; L 165mm+	1770-1840	
		iron coffin grip; small curved grip; incomplete	1770-1840	
1199		iron nail; L 110mm	1850-1900	discard
1206	162	copper-alloy halfpenny; reverse with shield to right; ?18th century	n/a	clean for ident
	163	copper-alloy fitting/implement; sturdy tubular body with central longitudinal perforation; transverse bars, with a central vertical 'spike', at each end forming feet/rest; L 155mm; feet L 100mm	n/a	further ident

PHASE 5: MID- TO LATE 19TH CENTURY

This phase was characterised by the over 300 burials in the newly extended part of the cemetery, producing large numbers of coffin fittings.

THE CEMETERY

In all, around 74 kilos of iron coffin upholstery pins were retrieved, along with some 24 kilos of tin coffin plate and nearly 20 kilos of coffin nails. In addition there were over 400 coffin grips and occasionally other fittings. While numerous burials were within stacks, contributing to bad preservation of individual coffins, it was nevertheless possible to record the coffin furniture from 233 burials (Table 1). A further 3.5 kilos of coffin fittings, along with at least 24 coffin grips, came from 'ossuaries' in Crypt 12, 15 and 16. The most frequently found coffin fittings were coffin upholstery pins, recovered from 176 burials, followed by coffin grips, recorded in 147 cases. Coffin plate was present in 115 burials, but in most cases it was not possible to establish whether this originated from breast plates, coffin grip plates or other fittings like escutcheons. Only one secure and inscribed breast plate was recovered. Coffin nails were retrieved from all except 33 burials, and in the case of a small group of burials coffin nails were the only recorded fittings (SK 124, 163, 329, 455, 458, 549, 567, 562, 636, 903, and 1129). Twenty burials produced possible additional coffin fittings, in the form of iron bars, pins or straps. From the crypts, a near-complete but twisted wrought-iron gate with cast-iron gatepost was retrieved, coming from Crypt 1.

Besides coffin fittings, 57 burials produced evidence of shrouds or clothing. Some burials included other objects associated with the bodies, such as combs or possible finger rings but also a pair of crucifixes; toys and playthings from the burials of children may have been personal items placed in the coffin.

Coffin breastplates

Only one clearly identifiable breast or depositum plate was recorded from the excavations. The near-complete inscription reads '...WILL / THOROWGOOD / BREWINGTIER / DIED 25 DEC / 1843 / AGE ...' and can be identified as William Thorowgood Brewingtier/Brewington d: 25/12/43 aged 3 months. The plate was recovered from the fill of Grave 196, which contained a juvenile; however, this burial was cut from above by Grave 102, with disarticulated human bone including fragments of a neonate/infant to whom it presumably belonged. The shield-shaped

breast plate has parallels in the nearby cemetery at New Bunhill Fields in Southwark, in use c. 1821–53 (Miles and Connell 2012, fig. 36 Type DVL1).

Coffin upholstery pins

Upholstery pins, are short-shanked nails with domed heads fixed the cloth that covered the outside of the coffin, a tradition introduced in the 17th century (Janaway 1993, 100). Coffin pins did not only have a practical purpose, but were also used to outline decorative patterns on the lid and sides of the coffin (Reeve and Adams 1993, 86). At St Mary's, no coffin was recorded intact with patterns of upholstery pins, but among the vast numbers of pins recovered from the burials are frequent inclusions of strips, rosettes and clusters reflecting their original decorative function. In some cemeteries, such as the Quaker cemetery at Kingston-upon-Thames in London, upholstery pins were also found to be used, in place of depositum plates, to spell out the initials, date of death and age of the deceased (Bashford and Sibun 2007, 128–29 and fig. 6; cf. Litten 1991, 99). Upholstery pins were either of copper alloy or iron, with a wider use of copper-alloy pins possibly representing an earlier period of use (cf. Bashford and Sibun 2007, *ibid.*). The pins from St Mary's are almost exclusively of iron, with only a little copper-alloy present in two burials (Grave 161, SK 59, and associated with SK 67); a handful of copper-alloy upholstery pins were also retrieved from Phase 5 cemetery soil (sf 322). However, many of the iron pins have a distinct black coating or lacquer reflecting the choice of finishes available for coffin fittings already by the end of the 18th century (Litten 1998, 14; cf. Budd 1993, 149).

Coffin grips (Table 2)

Around 440 coffin grips were retrieved from 147 individual burials, with a further at least 24 grips from from the 'ossuaries' in Crypts 12, 15 and 16. In addition, at least ten further coffin grips were collected from the Phase 5 cemetery soil. All grips are of cast iron and many, like the coffin pins above, are coated with black lacquer. Most of the grips could be identified to type, with the vast majority (298 grips) provided by simple curved grips with small outward-pointing arms, corresponding to Type 2a grips from Christ Church, Spitalfields, in London (CCS). Five of the six grips associated with phase 3 burials are also of this type (cf. above). The second most frequent grip is a smaller and more delicate version of the CCS2a type (76 grips; cf. Mould 2011a, fig. 760 Type 2.2). One such grip is also present in the Phase 4 cemetery soil. Two types of a more solid cast grip are also present among the finds from St Mary's, both paralleled at Christ Church, Spitalfields. One is cast with the image of a pair of cherubs' heads (13 grips); this was the most frequent type found at Spitalfields, were it had a date range of between AD 1743 and 1847 (Reeve and Adams 1993, 144:

CCS Type 4). The other (six grips) were cast instead with a central shield flanked by floral motifs (CCS Type 6). At Spitalfields this grip had a date range between AD 1839 and 1849 (Reeve and Adams 1993, *ibid.*); a variety of the type is known also from St Luke's Church in Islington, where it came from a burial dated to 1847 (Boyle *et al.* 2005, 95–6 and figure 4.68).

In many cases, fragments of embossed metal plate adhered to the grips, reflecting the use of elaborate, decorative grip plates characteristic of funerary fashions in the late 18th and 19th centuries (cf. Reeve and Adams 1993, 86; Mould 2011a, 687–92). This is undoubtedly also reflected in the numerous fragments of embossed coffin plate recovered from the burials. The number of coffin grips recorded in individual burials varies widely, and is likely to be a result of preservation and the frequent burial in stacks. The normal pattern for coffin grips at this time would be three along each side of the coffin (with only two grips for a child-sized coffin) and one each at the ends (Reeve and Adams 1993, 83); this may be reflected in the burial of adult SK 1094 (Grave 530) which yielded eight CCS2a grips, or in burial 851 (Grave 865) which retained seven grips of the same type. The use of different types of grips on the same coffin is not unusual, as in that of adult SK 719 (Grave 689) with six CCS2a grips and two smaller curved grips. The small curved grip, with a width of c. 70mm, was clearly purely decorative, and coffins were not generally lifted or carried by the grips; they only served to assist and help balance the coffin while lifting. In the case of two juvenile burials (SK 1004 and 1008), both coffins appear to have been furnished with six of these small curved grips. Some infants also had coffins furnished with grips; Burial 802 (Grave 801) included four small curved grips, while that of infant SK 950 had two CCS2a grips.

Other coffin fittings

Twenty three burials included additional finds that may be associated with the coffins, as fittings or part of the coffin construction. In most cases these finds consisted of iron pins, bars or straps but there is also a possible clench bolt (sf 297; Grave 813) and four copper-alloy pins, nails or rivets (sf 287/Crypt 16/SK 372; sf 334/Crypt 16/SK 391; sf 330/SK 72; sf 477/SK 476). Of particular interest is an iron hasp terminal in Burial 221 (Grave 223; sf 283). The use of hinged hasps to secure the coffin lid on coffins is known from 18th and early 19th-century burials at St Peter's at Barton-upon-Humber (Mould 2011a, 685 and fig. 749.6–8), and from Quaker burials at Coach Lane, North Shields (Gaimster *forthc.*), and Hemingford Grey in Cambridgeshire (Clough 2007, 28–9 and figs. 6 and 9). A further possible hinged hasp may be present in Burial 1196 (Grave 1235; sf 308).

Evidence of shrouds and clothing (Table 3)

Shroud pins of fine copper-alloy wire were recovered from at least 23 burials, and buttons from at least 46 individual interments. The buttons represent a range of different types, including small suspender buttons of bone, shell and glass, so-called cartwheel buttons of cloth-covered copper-alloy wire (cf. Richardson 2012, 49–50 and fig. 55), and copper-alloy disc buttons. A further four buttons were retrieved from the ‘ossuary’ in Crypt 15. While some of the buttons may be residual from the cemetery soil, as may be the case for an 18th-century disc button from the grave fill of Burial 375 (Grave 377: sf 47; cf. sf 124, Phase 4 above). The majority are likely to reflect the use of personal clothing for the burial. Studies of funerary textiles have shown a great variety of practices in the use and combination of shrouds, winding sheets and personal clothing (Janaway 1998, 31), and several of the burials at St Mary’s include both shroud pins and buttons (SK 931; SK 1094; SK 1099; SK 1004). Two burials include different types of buttons (SK 48; SK 758), suggesting that more than one garment was used (cf. Mould 2011b, 708–11).

Other objects from the burials (Table 3)

Besides shroud pins and evidence of clothing, some burials also included other personal objects, such as a gold wedding ring, found at the left hand of SK 570, and three probable copper-alloy finger rings (SK 611; SK 748; SK 830). Tortoiseshell combs, to pin up the hair (sf 14/SK 167; sf 44/SK 332), were found in two burials, in one case *in-situ* on the skull (SK 167; cf. Egan 2011, 179–80 and fig. 151); a further fragment of a similar comb came from Burial 851 (Grave 865; sf 102). A small copper-alloy hair clip, with remnants of blond hair, was retrieved from juvenile Burial 603 (Grave 605; sf 56). Two small copper-alloy crucifixes with remnants of copper-alloy chain (sf 49), from Burial 432 (Grave 165), may indicate that the deceased, or a family member, was Roman Catholic (cf. Richardson 2012, 48).

Other objects, not directly associated with personal belief, or the dressing of the body for the funeral, include two toys that may have been included in the burial as mementoes. This is particularly suggestive for a small toy fork, delicately carved of bone, from infant/juvenile Burial 1033 (Grave 1035; sf 122) but may also be likely for the marbled ceramic alley (marble) in juvenile Burial 673 (Grave 704; sf 67). A number of coins, were also retrieved from burials (SK 183; SK 285; SK 629; SK 707; SK 1109). These may well originate from the cemetery soil; however, at least one, a possible 1797 cartwheel penny associated with SK 63 (sf 7), was wrapped in textile suggesting it was deliberately placed with the body. The coins include an 1823 farthing of George IV (sf 15) and a ?halfpenny coronation token of William IV, marked ‘CROWNED SEPR 8TH / 1831’ on the obverse (sf 61).

THE CEMETERY SOIL AND RESIDUAL FINDS

Besides residual grips and other coffin fittings, the cemetery soil and other Phase 5 contexts produced a further 30 finds not directly related to the cemetery. In addition, six unstratified objects have been included in this section. While a handful of copper-alloy buttons (sf 34, 76, 86, 92, 112 and 331) may originate from disturbed burials, the majority of finds are likely to represent casual losses or rubbish disposal from the local area. The finds include furniture mounts, such as an openwork handle escutcheon (sf 19; cf. Egan 2007, pl. 47 no. 3122) and curved ?lock hasp with tongue-shaped finial, likely from a small chest or casket (sf 109), both of copper alloy. A further trapezoid copper-alloy mount or escutcheon has a simple vertical slot at the centre (sf 317). Household objects and furnishings are also reflected in two bone cutlery handles (sf 340 and 347) and a probable copper-alloy curtain ring (sf 323). There are also fragments of two bone toothbrushes (sf 28 and 339), two copper-alloy thimbles (sf 10 and 129), a copper-alloy bell (sf 22), a piece of slate pencil (sf 11) and a bone domino gaming piece (sf 29). Four coins were retrieved, including a George III halfpenny of 1806 (sf 11) and a copper-alloy halfpenny token with the inscription 'KELLYS PATENT SADLERY & CO. SOLD CHEAP // KELLYS LIGHT HARNESS SOLD CHEAP AT THE MANUFACTORY. STRAND. LONDON' (sf30), likely to date to the 1790s. A copper-alloy obituary token of William IV has a small pierced hole for suspension; it is inscribed 'WILLIAM IIIII DIED JUNE 20,1837 // BY TRAMPLING ON LIBERTY I LOST THE REINS' (sf 313). The inscription, which was also used on William IV coronation tokens, alludes to the downfall of the Duke of Wellington in 1830 and his replacement as Prime Minister by Lord Grey, a crisis that eventually led to the passing of the Reform Act in 1832 (cf. Hawkins 1962, 177).

Also some of the finds from burials are likely to be residual objects of this group. They include three incomplete bone cutlery handles (Grave 388: sf 344; Grave 394: sf 151; Crypt 15: sf 46), a small copper-alloy wall hook (Burial 63; sf 8) and fragments of two slate pencils (Grave 854: sf 83; Grave 925: sf 104). Among this group of finds is also material relating to production and manufacture, chiefly in the form of bone-working waste (Grave 223: sf 343; Grave 551: sf 58; Grave 865: sf 101). The incomplete copper-alloy dividers from Crypt 15 provide an interesting find (sf 40), and may be residual from the construction of the crypts in Phase 4.

Metal and small finds from Phase 5

context	sf	description	pot date	recommendations
0	20	bone ring with neatly faceted and rounded outer edge; incomplete; diam. 22mm	n/a	
	24	copper-alloy ?pin/stylus; round-section body with one pointed and one rounded end; L 60mm; gauge 3mm	n/a	further ident

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	28	bone toothbrush; part of oval head only, with three rows of drilled bristle holes and sawn grooves at the back; L 30mm	n/a	
	129	copper-alloy thimble; fine machine-punched indentations; complete but highly corroded; ht. 19mm	n/a	
	313	copper-alloy obituary token of William IV; 'WILLIAM III DIED JUNE 20, 1837 // BY TRAMPLING ON LIBERTY I LOST THE REINS'; diam. 21mm; small pierced hole for suspension at edge	n/a	
	339	bone toothbrush; oval head only, with four rows of drilled bristle holes and sawn grooves at the back; L 55mm	n/a	
26	10	copper-alloy thimble; fine machine-punched indentations and seven concentric bands around base; ht. 21mm	19th century	
	11	George III halfpenny, 1806	19th century	
	21	copper-alloy coin; heavily corroded halfpenny	19th century	x-ray
	22	copper-alloy bell; squashed upper part only, with suspension loop of flat strap;	19th century	
	315	copper-alloy dress hook of flat wire with curled terminals for fixing; L 10mm; W 9mm	19th century	
	329	lead window came; fragment only	19th century	
	340	bone tang-hafted cutlery handle; flat, tapering with faceted edge; L 85mm	19th century	
		leather shoe; decayed fragments only	19th century	discard
		iron coffin grips; CCS type 2a; W 110mm; black coating; CCS type 2a; W 95mm; CCS type ?4/6; incomplete	19th century	
101		iron coffin fittings; from charnel pit	1770-1840	
192	29	bone domino gaming piece with simple drilled pits; 6/4; 12 x 28mm	1825-1900	
	30	copper-alloy halfpenny token; 'KELLYS PATENT SADLERY & CO. SOLD CHEAP // KELLYS LIGHT HARNESS SOLD CHEAP AT THE MANUFACTORY. STRAND. LONDON'; diam. 27mm; 1790s	1825-1900	
	31	copper-alloy pin with white-metal coating; Cagle type C; L 30mm	1825-1900	
	32	copper-alloy strip/waste; irregular shape; L 50mm	1825-1900	x-ray
	33	copper-alloy ?object; small irregular lump	1825-1900	x-ray
	34	copper-alloy disc button; slightly domed with engraved line around circumference; ?gilded; diam. 19mm	1825-1900	x-ray
		iron nails; three incomplete	1825-1900	discard
199	19	copper-alloy openwork furniture handle escutcheon; quatrefoil shape with square central hole floral decoration along edges; c. 45 x 45mm;	1790-1830	
	331	copper-alloy ?button; heavily corroded	1790-1830	x-ray
		iron ?straps; three pieces; W 30mm	1790-1830	x-ray

		iron coffin grip; small curved grip; W 70mm	1790-1830	
242	341	coffin fragment with in-situ upholstery pins	1780-1830	
471	11	slate pencil; pointed fragment only	1850-1900	
	76	copper-alloy buttons; two heavily corroded; diam. 12mm	1850-1900	x-ray
	86	copper-alloy ?button; heavily corroded; diam. 10mm	1850-1900	x-ray
	92	copper-alloy ?button; heavily corroded disc; diam. 23mm	1850-1900	x-ray
	109	copper-alloy hinged ?lock hasp; slightly curved with tongue-shaped finial with integral pin/rivet at back; W 23mm; L 42mm	1850-1900	x-ray
	112	copper-alloy disc button with wire loop for fastening; ?traces of gilding; diam. 14mm	1850-1900	x-ray
	317	copper-alloy mount/escutcheon; trapezoid with simple oblong central slot; ht. 78mm; W 48mm; slot L 38mm	1850-1900	x-ray
		iron coffin furniture	1850-1900	
		iron coffin grips; 3 x CCS type 2a; W 105mm; black coating; 2 x CCS type 2a; W 115mm; CCS type 6; W 130mm; black coating	1850-1900	
574		iron coffin grips; five heavily corroded and incomplete	1820-1840	x-ray
651	75	copper-alloy squashed cap/mount; flat end; ht. 16mm; ?from cutlery handle or similar	mid-19th century	x-ray
	320	Victoria halfpenny; pre-1860	mid-19th century	
	321	copper-alloy strips; several fragments; W 2mm	mid-19th century	x-ray
	322	copper-alloy coffin upholstery pins; six complete; diam. 12mm	mid-19th century	
	323	copper-alloy ring with D-section body; diam. 33mm; ?curtain ring	mid-19th century	
	335	copper-alloy tube/chape; L 27mm	mid-19th century	x-ray
	347	bone tang-hafted cutlery handle; flat oval section with rounded end; L 90mm	mid-19th century	
		iron ?straps; three pieces; W 40mm	mid-19th century	x-ray
		iron coffin plate	mid-19th century	
		iron coffin grips; CCS type 2a; W 105mm; four heavily corroded curved pieces	mid-19th century	
910		iron coffin grip; CCS type 2a; incomplete; black coating	1820-1850	

SIGNIFICANCE OF THE FINDS

The coffin fittings and other finds from the burials provide important information of the Newington Church Yard and funeral fashions in the 19th century. Related to other contemporary cemetery finds, the assemblage also has the potential to throw light on the preferences and social status of the population that was buried here. In particular, the high proportion of burials that included buttons of various types is worthy of attention, providing material for studying funerary clothing. Tortoiseshell 'chignon' combs, a possible child's hairclip and two small crucifixes are further important finds, as are toys and playthings that may have been deliberately deposited in the coffins as mementoes. A possible 1797 cartwheel penny, wrapped in textile, may also have played a similar role.

In addition to the cemetery material, residual finds include dress accessories and household objects that reflect the material culture of the local population in the late 18th and 19th centuries. The dozen of coins retrieved from the site include interesting issues such as a possible coronation halfpenny token of George IV, an obituary token of the same king and a late 18th-century private halfpenny token advertising a saddlers in The Strand.

RECOMMENDATIONS FOR FURTHER WORK

The cemetery finds should be included in any further publication of the site, in the form of a catalogue and full discussion of coffin fittings and other finds from the burials. References should be made to other cemetery assemblages of the period. For this purpose, around 200 of the 440 coffin grips will require further x-ray to aid identification; these are all marked in Table 2. A further 100 metal objects from burials and other context will also need x-ray. The two copper-alloy crucifixes and eight of the coins should be cleaned by a conservator for full identification.

Following conservation and analysis, the majority of coffin fittings may be reburied with the human remains. A selection of coffin grips and personal belongings from the burials should be deposited with the Museum of London (LAARC). The wrought-iron gate and gate post from Crypt 1 should be photographed, but can then be discarded. Nails and undiagnostic metal finds from other contexts can all be discarded.

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APPENDIX 3 - POST-ROMAN POTTERY ASSESSMENT (SMC11)

By Chris Jarrett

Introduction

A medium sized assemblage of pottery was recovered from the site (4096 sherds, 28 boxes). The pottery dates from the medieval and post-medieval periods. Very few sherds show evidence of abrasion (0.4% by sherd count) and the majority of the pottery was probably deposited fairly rapidly after breakage. The fragmentation of the pottery ranges from sherd material to a notable number of vessels with complete profiles, while three 19th-century vessels are intact. Pottery was recovered from 187 contexts and individual deposits produced small (fewer than 30 sherds), medium (31-100 fragments) and eight large (over 101 sherds) groups of pottery.

All the pottery (4096 sherds/2922 ENV/106.954kg, of which 151 sherds, 116 ENV, 5.863 kg are unstratified) was examined macroscopically and microscopically using a binocular microscope (x20), and entered on a database, by fabric, form, decoration, sherd count and estimated number of vessels (ENV's) and weight. The classification of the pottery types follows the standard Museum of London Archaeology (2013). The pottery is discussed by types and distribution.

THE POTTERY TYPES

A small quantity of the pottery consists of medieval pottery types (0.4% SC/0.6% ENV/0.4% weight), the rest being of a post-medieval date. The breakdown of the quantification of the pottery types by period is as follows:

Medieval: 19 sherds, 19 ENV, 469g

Post-medieval: 4080 sherds, 2905 ENV, 107.570kg

Medieval

Pottery type	Code	Earliest date	Latest date	SC	ENV	Weight (g)	Form
Early medieval (Vince and Jenner 1991)							
Early medieval sandy ware with calcareous inclusions	EMCALC	1000	1150	1	1	4	Jar
Early medieval shell-tempered ware	EMSH	1050	1150	1	1	18	
Local glazed wares (Pearce 2010; Pearce <i>et al</i> 1985)							
Coarse London-type ware with shell inclusions	LCOAR SHEL	1080	1200	1	1	15	
London-type ware	LOND	1080	1350	5	5	109	Jug
Non-local							
Scarborough ware (Farmer 1979)	SCAR	1200	1350	1	1	77	Jug
Surrey whitewares (Pearce and Vince 1988)							
Coarse Surrey-Hampshire border ware	CBW	1270	1500	1	1	4	
Coarse Surrey-Hampshire border ware cooking pot with flat-topped rim	CBW FT	1340	1500	2	2	44	
Kingston-type ware	KING	1240	1400	6	6	191	Jug

Table 1. SMC11: Medieval pottery types and their forms. SC: sherd count, estimated number of vessels.

All of the medieval pottery recovered from the excavation is residual in post-medieval dated deposits and may have been derived from sources off site. The range of medieval forms found in the different pottery types (see Table 1) is typical for that found in the London area.

Post-medieval

Surrey-Hampshire border wares (Pearce 1992; 1999)

Surrey-Hampshire post-medieval border wares are present with a total of 321 sherds/260 ENV/11.544kg. The range of forms recorded amongst the Surrey-Hampshire border wares is fairly typical for this industry, although a small number of more unusual forms are represented, such as two RBOR bed warmers, with family sherds of the same vessels found in contexts [1000], [1002], [1213] and [1221], a BORDY bottle shoulder (context [1209]), a RBOR square dish (context [988]) as well as a brown glazed redware (RBORB) flat rimmed chamber pot (type 2), recovered from context [1019].

Pottery type	Fabric code	Earliest date	Latest date	SC	ENV	Weight (g)	Forms (identified)
Surrey-Hampshire border whiteware	BORD	1550	1700	3	3	14	
Surrey-Hampshire border whiteware with brown glaze	BORDB	1600	1700	1	1	8	
Surrey-Hampshire border whiteware with green glaze	BORDG	1550	1700	31	30	308	Bowl or dish, bowl: medium rounded, dish, drinking jug
Surrey-Hampshire border green-glazed whiteware flat-rimmed chamber pot	BORDG CHP2	1650	1750	16	8	307	
Surrey-Hampshire border whiteware with olive glaze	BORDO	1550	1700	6	6	110	chamber pot, jar, tripod pipkin: type 2
Surrey-Hampshire border whiteware with yellow glaze	BORDY	1550	1700	32	27	666	Bottle, bowl; flared, chamber pot, dish, jar: medium rounded, porringer: carinated, tripod pipkin
Surrey-Hampshire border redware	RBOR	1550	1900	201	163	9155	Bed pan, bed warmer, bowl: flared, rounded, bowl or dish, chamber pot, dish: flared, square, squat, jar: rounded, lid: carinated, dish, paint pot, pipkin, tripod pipkin: type 2
Surrey-Hampshire border redware with brown glaze	RBORB	1580	1800	23	14	794	Bowl: flared, chamber pot: type 2, lid
Surrey-Hampshire border redware with green glaze	RBORG	1580	1800	6	6	155	Jar: rounded
Surrey-Hampshire border redware with slip-trailed decoration	RBORSL	1580	1800	2	2	27	Bowl or dish

Table 2. SMC11: Post-medieval Surrey-Hampshire border wares. SC: sherd count, estimated number of vessels.

London area coarse post-mediaeval redwares (Nenk and Hughes 1999)

The local coarse red earthenwares comprised a total of 861 sherds/606 ENV/42.903kg. The forms found in the local post-medieval redware are fairly run of the mill (bowls, dishes, jars, etc) except for a small quantity of sugar cone moulds (19 sherds/17 ENV/673g), recovered from numerous Phase 5 contexts. There are also a large number of often fragmentary, beaker shaped vessels used for manufacturing white lead (Meddens 2011), and recorded as 124 sherds/85 ENV/5824g. These were

first recovered in Phase 3, context [1209] and more numerous examples were found in Phase 4 deposits, while the largest quantity was noted from Phase 5: particularly contexts [650] and [717]. Both the sugar cone moulds and the white lead making vessels are in a fragmentary state and indicate dumping from offsite sources. A notable quantity of flower pots is represented by 203 sherds/130 ENV/11.898kg, as well as a smaller quantity of seed pans or horticultural dishes. These forms were found in a number of deposits dating to Phases 2 and 3, although their greatest concentration was in Phase 4 and particularly Phase 5 deposits. Although fragmentary, these horticultural forms imply gardening was an important activity on or in the vicinity of the site. One other form of interest is part of a PMR tongue pan found in Phase 3 and context [12] and deposited c. AD 1820-40. Tongue pans have been previously recorded in PMR, although they are better known for being made in stoneware (see below). Also of note is a PMR rounded bowl with a narrow, down turned rim and rounded wall profile, above a splayed base. This rarely encountered form is of an early 19th century date and it was recovered from Phase 4, context [988].

Additionally in the coarse London area fabrics category is a basal sherd of Peninsular House ware, which was noted in Phase 3, context [1209]. The main forms recorded in this glass-tempered pottery type are jars and crucibles; however it was not possible to determine its shape by profile, or by the presence of metallurgical residues.

Pottery type	Fabric code	Earliest date	Latest date	SC	ENV	Weight (g)	Form
London-area post-medieval redware	PMR	1580	1900	839	584	41958	Bowl: flared, rounded, oval, bowl or dish, cauldron or pipkin, chamber pot, colander: handled and flared, dish: flared, horticultural, rounded, flower pot, white-lead making vessels, Jar: rounded, syrup collecting, jug, lid; flanged, pipkin, sugar cone mould, tongue pan
London-area early post-medieval redware	PMRE	1480	1600	6	6	256	Bowl or dish: carinated (type 2), cauldron, chamber pot, jar
London-area post-medieval slipped redware	PMSR	1480	1650	1	1	11	
London-area post-medieval slipped redware with green glaze	PMSRG	1480	1650	3	3	65	Cauldron or pipkin
London-area post-medieval slipped redware with clear (yellow) glaze	PMSRY	1480	1650	11	11	447	Bowl or dish: carinated (type 2),
'Peninsula House' ware	PEN	1650	1700	1	1	166	

Table 3. SMC11: London area coarse post-medieval wares and their forms. SC: sherd count, estimated number of vessels.

Delftware (Orton 1988; Orton and Pearce 1984)

Pottery type	Code	Earliest date	Latest date	SC	ENV	Weight (g)	Form
English tin-glazed ware	TGW	1570	1846	67	61	486	Albarelo, bowl: rounded, chamber pot, dish, jar: cylindrical, Plate: type FBI, saucer, tea bowl, vase
Tin-glazed ware with manganese-mottled glaze (Orton style B)	TGW B	1630	1680	1	1	3	
Biscuit-fired tin-glazed ware	TGW BISC	1570	1846	20	20	538	Bowl: flared, rounded, charger, ointment pot, saggarr
Tin-glazed ware with plain pale-blue glaze	TGW BLUE	1630	1846	67	36	1118	Bowl: flared, rounded, chamber pot, ointment pot, porringer
Tin-glazed ware with plain white glaze (Orton style C)	TGW C	1630	1846	34	28	447	Bowl: chamber pot, dish: fluted, jar: cylindrical, mug: rounded, ointment pot, porringer
Tin-glazed ware with external lead glaze/polychrome painted (Orton style D)	TGW D	1630	1680	20	20	572	Albarelo, bowl, charger
Tin-glazed ware with 'Chinaman among grasses' decoration (Orton style F)	TGW F	1670	1690	1	1	27	Bottle
Tin-glazed ware with pale blue glaze and dark blue decoration (Orton and Pearce style H)	TGW H	1680	1800	50	40	1092	bowl: rounded, flared, charger, punch bowl, jar: storage, ointment pot, plates; types FBI and K, saucer
Tin-glazed ware with manganese ground panel decoration	TGW J	1735	1770	8	3	254	Dish: charger
Late tin-glazed ware	TGW LATE	1745	1846	1	1	128	Ointment pot

Table 4. SMC11: English and London delftware and their forms. SC: sherd count, estimated number of vessels.

The English tin-glazed earthenwares account for 269 sherds/211 ENV/4.665kg. The dating of the range of decorative styles found on the delftware span the mid 17th to mid 19th century and are present on forms fairly typical for this industry, such as bowls, chargers, chamber pots, dishes, ointment pots and plates. Delftware is present from Phases 3 to 5 and comprises 269 sherds/211 ENV/4.665kg. A small quantity of biscuit ware is present in the forms of bowls, ointment pots and saggars and this represents production waste from the Southwark pot houses. Such waste material is frequently found in post-medieval deposits on archaeological excavations in Southwark and represents different pothouses' attempts to dispose of the large quantities of 'industrial refuse' that they produced by any means, including as hard

core. For the biscuit ware wasters single sherds have been noted in Phase 3 and 6, while similar small quantities in Phase 4 and 5 deposits with eight and nine sherds respectively. The forms are restricted in their range (see Table 4). Domestic vessels with complete profiles include a chamber pot (TGW BLUE: context [1209]), a squat cylindrical jar/patty pan (TGW C: context [1199]), a simple plate with Chinoiserie and floral designs (TGW H: contexts [1199] and [1209]) and an 18th-century charger in the purple panel style (TGW J) and sherds from this vessel were found in different contexts: [988], [1019], [1213] and [1221]. An intact late 18th-early 19th-century ointment pot (TGW LATE) with a flared profile was recovered from context [1199].

Essex fine wares (Nenk and Hughes 1999)

Pottery type	Fabric code	Earliest date	Latest date	SC	ENV	Weight (g)	Form
Metropolitan slipware	METS	1630	1700	4	4	150	Bowl or dish, bowl
Post-medieval Essex black-glazed redware	PMBL	1580	1700	10	9	153	Jug: rounded, mug: conical
Post-medieval fine redware	PMFR	1580	1700	9	7	156	Bowl: rounded

Table 5. SMC11: Essex post-medieval fine redwares and their forms. SC: sherd count, estimated number of vessels.

The forms found in the Essex fine redwares are typically bowls, dishes and drinking forms, such as a jug and mugs. In total there are 23 sherds/20 ENV/459g of pottery from this source in the assemblage. Of some interest is the presence of the splayed base of a conical mug in PMFR and from Phase 4, layer [1007] and it represents a more unusual form. The majority of the Essex fine redwares appear to be residual material.

Non-local wares (Hildyard 2005)

The non-local wares identified were recovered from Phases 3-5 and account for 155 sherds/212 ENV/5.112kg of the pottery in the assemblage. The forms are typical for the individual ware types (see Table 6). However, in the yellow wares an unidentified form consisting of a hollow pedestal base below a globular body was noted. The vessel is decorated with blue and white slip lines. It derived from Phase 3 and context [1209].

Pottery type	Code	Earliest date	Latest date	SC	ENV	Weight (g)	Form
Blackware	BLACK	1600	1900	12	12	229	Bowl: flared ; dish: small, jar: cylindrical
Midlands late medieval orange ware	MORAN	1400	1820	13	8	536	Butter pot
Slipped redware	PMR SLIP	1800	1900	1	1	84	Baking dish
Rockingham mottled brown-glazed ware	ROCK	1800	1900	1	1	12	teapot
Staffordshire-type black-glazed ware	STBL	1740	1780	3	2	9	Bowl, jar
Staffordshire-type coarse earthenware	STCO	1650	1800	1	1	15	
Staffordshire-type redware	STRE	1600	1800	2	2	18	
Staffordshire-type red-slipped glazed ware	STRSB	1750	1800	12	8	307	cup
Combed slipware	STSL	1660	1870	29	28	968	Chamber pot, dish: rounded, mug: flared, porringer, saucer,
Sunderland-type coarseware	SUND	1800	1900	24	17	1274	Bowl: flared (handled), rounded,
Sunderland-type coarseware with brown mottled glaze	SUND MOT	1775	1850	6	5	594	Bowl; rounded, dish; rounded
Verwood ware	VERW	1600	1900	3	3	201	
Plain yellow ware	YELL	1820	1900	10	9	193	Bowl: rounded, chamber pot
Yellow ware with industrial slip decoration	YELL SLIP	1820	1900	37	23	650	Bowl: carinated, rounded, chamber pot, teacup: London shape, jug, tankard

Table 6. SMC11: Non-local wares and their forms. SC: sherd count, estimated number of vessels.

Imported pottery (Hurst *et al* 1986)

Imported wares are found in Phase 3 to 5 dated deposits and in total account for 135 sherds/126 ENV/2.845kg of the assemblage. The main pottery source in this category is China (99 sherds/91 ENV/1.165kg) with different types of decorated porcelain (see Table 7). These mostly comprise tea and table wares (plates), although possible ginger jars and a tea caddy are present. German wares have also been identified and are represented by Rhenish stonewares (28 sherds/28 ENV/784g), in the form of mostly fragmentary drinking forms, besides parts of 19th-century Westerwald stoneware seltzer bottles. Italian wares are also fairly well represented on the site (six sherds/5 MNV/852g) and these are mostly represented by bowls in North Italian marbled slipware – usually the most frequent Italian import and form recorded on archaeological sites in London. Of interest are two base sherds of an Italian olive jar found in Phase 4, context [1053] with this form possibly having been derived from a local 19th-century oil/colour shop. The only Low Countries import is a tin-glazed ware plate decorated in blue and white with a possible Chinoiserie design. It was recovered from Phase 5 from the cemetery soil [192]. The base of a large 19th-century Continental porcelain plate was unstratified.

Pottery type	Code	Earliest date	Latest date	SC	ENV	Weight (g)	Form
China							
Chinese porcelain	CHPO	1580	1900	14	12	130	Bowl: rounded, dish, jar: shouldered, saucer, tea bowl
Chinese porcelain, Batavian ware	CHPO BATV	1700	1750	1	1	4	Tea bowl,
Chinese blue and white porcelain	CHPO BW	1590	1900	69	63	915	Bowl: rounded, tea cup, dish oval, rectangular, mug: cylindrical, plate: dinner, saucer, tea bowl
Chinese Imari porcelain	CHPO IMARI	1680	1900	8	8	42	Bowl: rounded, saucer, tea bowl
Chinese porcelain with famille rose decoration	CHPO ROSE	1720	1800	6	6	55	Bowl: rounded, saucer, tea bowl
Chinese porcelain with famille verte decoration	CHPO VERTE	1690	1730	1	1	19	Bowl: rounded, dish, plate, saucer
Low Countries							
Dutch tin-glazed ware	DTGW	1512	1800	1	1	14	plate
Italy							
Montelupo oil jar	MLOJ	1800	1900	2	2	731	
North Italian bichrome marbled slipware	NIMS BICR	1600	1750	3	2	116	Bowl: rounded
North Italian polychrome slipware	NIMS POLY	1600	1750	1	1	5	bowl
Germany							
Frechen stoneware	FREC	1550	1700	18	18	303	Jug: bartmannen
Raeren stoneware	RAER	1480	1610	2	2	43	Drinking jug
Westerwald stoneware	WEST	1590	1900	8	8	438	Bottle: seltzer, jug, tankard
Unknown							
Continental porcelain	CONP	1710	1900	1	1	30	Plate: large

Table 7. SMC11: Imported pottery and their forms. SC: sherd count, estimated number of vessels.

English Stonewares (Oswald et al 1982, Hildyard 2005)

English stonewares comprise a total of 441 sherds/377 ENV/17.673kg and are present in Phases 2-4 and particularly Phase 5. The different stoneware fabrics represent a range of forms (see Table 8) which are typically encountered on London archaeological excavations. More unusual forms are a black basalt ware in the form of a bowl (Phase 5, context 361) and a jug (unstratified), presumably both part of tea services, besides a tankard shape and possible mortars in London stoneware (Phase 4, context [1019] and Phase 5, context [574]) and three LONS saggars, representing refuse from Southwark pot houses (Phase 4, context [1097], Phase 5, contexts [284]

and [949]). There is also a tubular pipkin handle in Nottingham stoneware (Phase 5, context [192]). Of note is an English stoneware vase fragment surviving with external white clay sprigged leaves and flowers and an internal blue glaze which may be a product of the Herculaneum Pottery in Liverpool (Hildyard 2005). This was recovered from Phase 4, context [1091].

Additionally and of interest are fragments of at least three London stoneware tongue pans found in Phase 3, context [1152], Phase 4 [1053] and Phase 5, context [939]. These 19th-century forms are rarely recovered archaeologically and may have been derived from a local butchers shop.

There is also a notable quantity of fragmentary LONS jugs (27 sherds/23 ENV/1.710kg) and tankards (twelve sherds/10 MNV/348g) identified in LONS and SWSG and recovered from Phase 3-5 dated contexts. A fragment of a LONS tankard has inscribed on it pre-firing 'Lemo[n]...'. Although these items may have been derived from domestic households, it is also possible that they represent refuse from local drinking establishments.

Pottery type	Code	Earliest date	Latest date	SC	ENV	Weight (g)	Form
Black basalt stoneware	BBAS	1770	1900	27	20	374	Bowl, jug, tea pot: rectangular, teapot lid
Black basalt stoneware with glaze	BBASG	1770	1880	2	1	28	Teapot
Blue stoneware	BLUE	1800	1900	7	2	42	Bowl: carinated, teacup: London shape
Derbyshire stoneware	DERBS	1700	1900	12	11	134	?Bottle, bowl: flared
English stoneware	ENGS	1700	1900	24	23	1005	Bottle: blacking, cylindrical, shouldered, jar: shouldered, vase
English stoneware with Bristol glaze	ENGS BRST	1830	1900	2	2	11	Bottle: blacking, cylindrical,
London stoneware	LONS	1670	1926	274	242	14726	Bottle: blacking, cylindrical, flat, ginger, bottle/jar, bowl, deep, flared, jar: shouldered, jar: shouldered, jug: rounded, ?mortar, pan; tongue, saggur, tankard
Midlands purple ware	MPUR	1400	1750	6	6	170	Butter pot, jar: cylindrical
Nottingham stoneware	NOTS	1700	1800	5	5	47	Jar: rounded, pipkin
Red stoneware	REST	1730	1780	1	1	23	teapot
Glazed red stoneware	RESTG	1760	1780	3	3	48	Teapot, teapot lid
White salt-glazed stoneware	SWSG	1720	1780	68	52	962	Bowl; rounded, chamber pot, dish: deep, plate: dinner, saucer, tankard, tea bowl
White salt-glazed stoneware with cobalt and incised decoration	SWSG COB	1740	1780	3	3	38	Chamber pot
Dipped white salt-glazed stoneware	SWSL	1710	1760	7	6	65	Mug: cylindrical, tankard

Table 8. SMC11: English stonewares and their forms. SC: sherd count, estimated number of vessels.

English porcelains (Cushion and Cushion 1992)

Pottery type	Code	Earliest date	Latest date	SC	ENV	Weight (g)	Form
English porcelain	ENPO	1745	1900	2	2	7	Bowl: small. Teacup
English hard paste porcelain	ENPO HP	1780	1900	5	5	31	Figurine, lid, mug: cylindrical, saucer, teacup
English porcelain with over or under-glaze polychrome painted decoration	ENPO PNTD	1745	1900	4	2	9	Saucer
Worcester porcelain with under-glaze blue painted decoration	ENPO WORC BW	1765	1830	4	3	31	Dish: flared, saucer

Table 9. SMC11: English porcelains and their forms. SC: sherd count, estimated number of vessels.

Porcelains are represented by a total of 15 sherds/12 ENV/78g and were found in Phase 3-5 dated contexts. Notable were four sherds of fragmentary Worcester porcelain dating to the late 18th-early 19th century, otherwise the rest of the material is generally dated to the 19th century.

Twice-fired or industrial finewares (Lewis 1992; Hildyard 2005)

Pottery type	Fabric code	E date	L date	SC	ENV	Weight (g)	Form
Bone china	BONE	1794	1900	54	32	695	Bowl: rounded, dish: rounded, jug: plate: dinner, saucer, tea cup: French, Hamilton, London, porringer shapes, tea pot
Coloured glazed refined whiteware	COLGE	1800	1900	2	2	8	
Creamware with under-glaze blue painted decoration	CREA BW	1770	1830	1	1	3	Plate: dinner
Creamware with developed pale glaze	CREA DEV	1760	1830	744	449	7703	Bowl: rounded, flared, chamber pot, dish: oval, rectangular, rounded, food mould, jar: cylindrical, shouldered, rounded, small, jug: shouldered, lid: flanged, tureen, plate: dinner, large, soup, tea, saucer, tankard
Early creamware	CREA EAR	1750	1770	10	10	215	Bowl: rounded, jar: cylindrical, plate: dinner
Creamware with polychrome painted decoration	CREA PNTD	1760	1800	3	3	23	Jar: rounded, plate: dinner
Creamware with industrial slip decoration	CREA SLIP	1775	1830	23	18	109	Bowl: rounded, flared, jug, mug: cylindrical
English yellow-glazed refined earthenware	EYGE	1785	1835	1	1	3	mug: cylindrical
Lustreware (purple bodied)	LUST	1805	1900	2	2	39	mug: cylindrical
Majolica	MAJO	1850	1900	18	11	137	Dish
Pearlware	PEAR	1770	1840	110	74	1387	Bowl: flared, rounded, jar: cylindrical, jug: barrel, plate, : dinner, saucer, teacup: Bute

Pottery type	Fabric code	E date	L date	SC	ENV	Weight (g)	Form
Pearlware with under-glaze blue painted decoration	PEAR BW	1770	1820	109	80	793	shape, j Bowl: rounded, jar: cylindrical, jug: barrel, plate: dinner, saucer, teacup: Bute shape, tea, tea bowl
Pearlware with under-glaze polychrome painted decoration (earth colours)	PEAR EARTH	1790	1820	23	23	89	Bowl: rounded, jar: cylindrical, jug: barrel, plate, saucer, teacup,
Pearlware with over-glaze transfer-printed decoration	PEAR OTR	1770	1800	1	1	2	
Pearlware with under-glaze painted decoration	PEAR PNTD	1770	1840	6	6	40	Bowl: rounded, mug: cylindrical, saucer, tea bowl
Pearlware with industrial slip decoration	PEAR SLIP	1775	1840	73	25	1140	Bowl: carinated, rounded, jug: barrel, mug: cylindrical, rounded, tankard, tea pot
Pearlware with sponged or spattered decoration	PEAR SPON	1800	1840	3	3	5	Tea cup
Pearlware with under-glaze transfer-printed decoration	PEAR TR	1770	1840	470	302	5624	Bowl: flared, rounded, chamber pot, candle stick, dish: fluted, hexagonal, oval, rectangular, rounded, eggcup, jug: rounded, lid, plate: dessert, dinner, large, oval, rectangular, soup, tea, sauceboat, saucer, teacup: Bute shape, Empire, London, porringer shapes, tureen: rectangular
Pearlware with type 1 blue transfer-printed decoration (Chinoiserie style line engraving)	PEAR TR1	1770	1800	4	3	19	Plate, saucer
Pearlware with type 2 blue transfer-printed decoration (stipple and line)	PEAR TR2	1807	1840	25	7	287	Jug, plate: dinner, tea, saucer
Pearlware with type 3 transfer-printed decoration (brown or	PEAR TR3	1810	1840	4	4	34	Bowl, jug, saucer

Pottery type	Fabric code	E date	L date	SC	ENV	Weight (g)	Form
black)							
Pearlware with type 4 transfer-printed decoration (new colours)	PEAR TR4	1825	1840	1	1	20	Bowl: rounded
Pearl ware with under-glaze printed and over-glaze painted decoration (type 6)	PEAR TR6	1800	1900	3	3	11	Saucer, tea bowl
Refined red earthenware	REFR	1740	1800	1	1	4	
Plain refined white earthenware	REFW	1805	1900	50	30	1145	Bowl or dish, chamber pot, jar: cylindrical., plate: dinner, tea pot
Refined white earthenware with under-glaze painted decoration (chrome colours)	REFW CHROM	1830	1900	6	4	66	Plate: dinner
Refined white earthenware with industrial slip decoration	REFW SLIP	1805	1900	3	3	18	Egg stand, plate: dinner
Transfer-printed refined whiteware	TPW	1780	1900	56	38	916	Bowl: rounded, dish: rounded, jug, lid, plate: dinner, soup, tea, sauceboat, saucer, teacup
Transfer-printed refined whiteware with under-glaze printed and over-glaze painted decoration (type 6)	TPW LITH	1850	1900	1	1	87	Bear's grease pot type lid
Brown or black transfer-printed refined whiteware (type 3)	TPW3	1810	1900	12	3	342	Plate, saucer, tureen
Transfer-printed refined whiteware with new colour decoration (type 4)	TPW4	1825	1900	26	21	158	Jug, mug; cylindrical, saucer, teacup: breakfast, London shapes
Transfer-printed refined whiteware with under-glaze printed and over-glaze painted decoration	TPW6	1840	1900	7	3	46	Plate: soup

Pottery type	Fabric code	E date	L date	SC	ENV	Weight (g)	Form
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(type 6)

Table 10. SMC11: Twice-fired or industrial finewares and their forms. SC: sherd count, estimated number of vessels

The twice fired or industrial finewares are the most frequent pottery types recorded in the assemblage with 1852 sherds/1165 ENV/21.168kg. Typically these wares were recovered in the form of table wares (bowls, plates and tureens), tea wares (small bowls/slop bowls, saucers, tea cups, tea bowls and tea pots) and hygiene wares (chamber pots). The most common decorative designs comprise blue shell-edged designs on the Pearl ware and refined whiteware, while the transfer printed wares (PEAR TR and TPW) feature the Willow pattern prominently, besides a range of Chinoiserie, European, floral and geometrical patterns.

What is notable amongst this group of pottery is the number of Pearlware barrel-shaped jugs and tankards with factory made slip ware decoration. The tankards include two examples with applied badges bearing the word 'IMPERIAL', which refers to legal standard measurements. These items are typically associated with the trappings of a drinking establishment (Rock 2006).

Additionally worthy of comment is a large part of a refined whiteware bears grease-type pot lid which was unstratified from crypt [25]. It is decorated with a late 19th-century, polychrome lithographic transfer-print of Prince Albert (1819-61) consort to Queen Victoria and the item is of a very good quality.

Miscellaneous wares

Pottery type	Code	E date	L date	SC	ENV	Weight (g)	Form
Miscellaneous unsourced post-medieval pottery	MISC	900	1900	5	5	42	Bowl: rounded, saggar, tea cu
Miscellaneous unsourced post-medieval slipwares	MISC SLIP	1480	1900	1	1	3	
Miscellaneous whitewares	MISC WW	900	1900	1	1	22	

Table 11. SMC11: Miscellaneous wares and their forms. SC: sherd count, estimated number of vessels

There is a small quantity of miscellaneous post-medieval wares found in the assemblage represented by six sherds/6 ENV/45g which are all unstratified or

recovered from Phase 5 deposits. The handle of a tea cup is noted in a burnt industrial fineware fabric which was found in context [651]. A saggar occurs in context [1025] and was made in a buff, grog-tempered fabric and has internal brown, lead glaze splashes, although it is not known what pottery industry it derived from. Context [1198] produced a sherd of fine sandy, high-fired earthenware with a grey core, buff coloured exterior and pale brown exterior surfaces. The vessel is thin walled and corrugated. A rim sherd was found in an orange coloured, fine sandy ware with a brown glaze and this came from context [625] and may be from a Staffordshire source. There are two unidentified slipwares present. The first is found in the form of a medium rounded bowl with a simple rim and was made in a fine, buff coloured fabric and with an internal white slip and a pearl ware-type glaze. It was found in context [192]. Recovered from context [414] was a small body sherd in an oxidised sandy fabric which is decorated with an internal white slip curving line. A miscellaneous whiteware was noted in deposit [471] and occurs as a body sherd from a cylindrical vessel. It has external olive glaze runs and an internal deposit which may represent a degraded glaze.

Distribution

Pottery was present in Phases 2-6 and its distribution is shown in Table 12. A summary of the distribution of the pottery for each phase is presented below.

Context	Phase	Trench	Size	SC	ENV	Weight (g)	Context ED	Context LD	Context considered date
21	-	Trench 5	S	1	1	87	1780	1900	Late 19th century
24	-	Trench 5	S	2	2	60	1580	1900	1580-1900
26	5	MT	M	36	30	895	1760	1830	19th century
39	-	Trench 3	S	1	1	11	1570	1846	1612-1800
40	-	Trench 3	S	2	2	73	1580	1900	1580-1900
47	5	MT	S	6	5	50	1770	1840	1770-1830
58	5	MT	S	16	16	214	1770	1840	1770-1830
76	6	MT	S	18	18	341	1810	1840	1810-1830
96	-	Trench 6	S	1	1	15	1770	1840	1770-1840
99	-	Trench 6	S	3	3	9	1825	1900	M-I 19th c
100	5	MT	S	3	3	27	1825	1900	1825-1900
101	5	MT	S	20	20	92	1770	1840	1770-1840
120	5	MT	S	11	10	121	1790	1820	1790-1820
125	5	MT	S	18	17	210	1850	1900	1850-1900
154	5	MT	S	1	1	4	1760	1830	1760-1830
158	5	MT	S	30	20	371	1760	1830	1820-1900
162	5	MT	S	6	6	78	1780	1900	1790-1830
189	5	MT	S	1	1	4	1570	1923	1670-1923

Context	Phase	Trench	Size	SC	ENV	Weight (g)	Context ED	Context LD	Context considered date
192	5	MT	M	94	75	1688	1825	1900	1825-1900
193	5	MT	S	11	9	86	1780	1900	1790-1830
199	5	MT	S	1	1	56	1770	1840	1790-1830
199	5	MT	S	17	17	201	1780	1900	1790-1830
204	5	MT	S	6	4	46	1770	1840	1770-1830
220	5	MT	S	17	17	345	1800	1900	Mid 19th century
224	5	MT	S	8	6	86	1760	1830	1760-1830
236	5	MT	S	1	1	3	1550	1700	1550-1700
242	5	MT	S	19	17	127	1770	1840	1780-1830
249	5	MT	S	9	9	61	1760	1830	1760-1830
254	5	MT	S	3	3	49	1825	1900	1825-1900
258	5	MT	S	2	2	76	1580	1900	1612-1800
262	5	MT	S	6	6	43	1800	1900	1800-1900
263	5	MT	S	25	24	161	1790	1820	1790-1820
267	5	MT	L	107	100	1894	1830	1900	1830-1900
280	5	MT	S	8	7	56	1794	1900	Mid 19th century
284	5	MT	M	71	62	1537	1810	1900	Mid 19th century
295	5	MT	S	8	8	88	1825	1900	1825-1900
301	5	MT	S	2	2	13	1700	1800	1700-1800
307	5	MT	S	13	13	108	1825	1900	1825-1900
315	5	MT	S	4	4	42	1780	1900	Mid 19th century
320	5	MT	S	14	14	114	1775	1840	1790-1840
328	5	MT	S	3	3	31	1740	1780	19th century
350	5	MT	S	1	1	11	1550	1900	1550-1900
361	5	MT	S	26	26	276	1820	1840	1820-1840
366	5	MT	S	5	4	73	1760	1830	1760-1830
374	5	MT	M	44	44	904	1820	1900	1820-1840
375	5	MT	S	1	1	24	1580	1900	1580-1900
389	5	MT	S	12	10	157	1825	1900	1825-1900
393	5	MT	S	17	17	249	1825	1900	1825-1900
395	5	MT	S	3	2	12	1780	1900	Mid 19th c
400	5	MT	S	5	5	26	1770	1840	1780-1830
404	5	MT	S	8	8	77	1794	1900	1794-1830
419	5	MT	S	6	6	79	1770	1840	Mid 19th century
423	5	MT	S	4	4	59	1760	1830	1760-1830
427	5	MT	S	4	3	15	1770	1840	1800-1840
438	6	MT	S	3	3	140	1805	1900	1805-1840
446	5	MT	S	4	4	27	1825	1900	1825-1900
461	5	MT	S	3	2	10	1825	1900	1825-1900
464	5	MT	S	13	9	102	1780	1900	1780-1830

Context	Phase	Trench	Size	SC	ENV	Weight (g)	Context ED	Context LD	Context considered date
467	5	MT	S	5	5	150	1760	1830	1760-1830
471	5	MT	L	221	154	3251	1850	1900	1850-1900
472	5	MT	S	2	2	39	1805	1900	1805-1900
475	5	MT	S	7	6	233	1760	1830	1760-1830
483	5	MT	S	5	5	13	1770	1840	1770-1840
487	5	MT	S	10	10	79	1805	1900	1805-1900
490	5	MT	S	3	3	20	1805	1900	1805-1900
493	5	MT	S	13	11	208	1805	1900	1805-1840
508	5	MT	S	17	17	65	1820	1900	Mid 19th century
523	5	MT	S	6	6	93	1780	1900	Mid 19th century
536	5	MT	S	3	3	53	1720	1800	1720-1800+
540	5	MT	S	2	2	6	1805	1900	1805-1900
551	5	MT	S	7	7	210	1830	1900	1820-1900
555	5	MT	S	3	3	22	1770	1900	1770-1830
563	5	MT	S	1	1	55	1660	1870	1660-1870
566	5	MT	S	9	9	137	1770	1840	Early 19th century
574	5	MT	M	96	45	1394	1820	1900	1820-1840
586	5	MT	S	11	11	58	1805	1900	1805-1900
597	5	MT	S	24	21	211	1800	1840	Mid 19th century
601	5	MT	S	1	1	2	1760	1830	1760-1830
602	5	MT	S	3	3	58	1770	1840	1790-1840
606	5	MT	S	8	7	210	1825	1900	Late 19th century
610	5	MT	S	4	4	114	1820	1900	1820-1900
615	5	MT	S	18	16	227	1775	1830	1800-1840
625	5	MT	S	20	20	101	1807	1840	1807-1820
630	5	MT	S	3	3	49	1760	1830	1760-1830
650	5	MT	M	54	38	1254	1770	1830	Mid 19th century
651	5	MT	M	78	66	675	1805	1900	Mid 19th century
664	5	MT	S	18	17	121	1770	1840	Mid 19th century
668	5	MT	S	7	7	174	1794	1900	1794-1830
681	5	MT	S	21	19	303	1770	1840	1800-1830
682	5	MT	S	1	1	24	1760	1830	1770-1830
682	5	MT	S	23	18	294	1770	1840	1770-1830
686	5	MT	S	7	6	36	1770	1840	Mid 19th century
717	5	MT	M	52	25	624	1850	1900	1850-1900
724	5	MT	M	38	30	499	1800	1900	1800-1840
728	5	MT	S	4	4	34	1670	1923	19th century
730	5	MT	S	4	4	97	1720	1730	1720-1780
731	4	MT	L	109	76	1351	1850	1900	1850-1900

Context	Phase	Trench	Size	SC	ENV	Weight (g)	Context ED	Context LD	Context considered date
742	5	MT	S	15	14	227	1790	1820	Mid 19th century
754	5	MT	S	6	3	64	1760	1830	1760-1830
766	5	MT	S	12	12	184	1820	1900	Mid 19th century
773	5	MT	S	14	14	169	1830	1900	1830-1900
779	5	MT	S	14	14	46	1790	1820	1790-1820
782	5	MT	S	3	3	55	1760	1830	1760-1830
783	5	MT	S	4	4	83	1770	1840	1770-1840
791	5	MT	S	9	9	115	1810	1900	1810-1900
795	5	MT	S	7	6	72	1807	1840	1807-1840
800	4	MT	S	8	8	110	1770	1840	1780-1810
804	5	MT	S	15	14	96	1850	1900	1850-1900
824	4	MT	S	16	12	439	1810	1840	1810-1840
827	5	MT	S	7	7	40	1820	1900	1820-1900
833	5	MT	S	1	1	4	1760	1830	1760-1830
840	4	MT	S	6	5	143	1800	1900	1800-1900
841	5	MT	S	3	3	169	1580	1900	1580-1900
850	4	MT	S	12	7	432	1810	1840	1810-1840
857	5	MT	S	21	19	221	1770	1840	1790-1830
859	4	MT	S	1	1	4	1630	1846	1630-1846
860	4	MT	S	19	12	672	1780	1900	Mid 19th century
861	4	MT	S	2	2	17	1805	1900	1805-1900
862	5	MT	S	2	2	37	1805	1900	Mid 19th century
864	5	MT	S	3	3	31	1750	1770	1750-1770
872	5	MT	S	2	2	51	1670	1923	1670-1923
878	4	MT	S	1	1	9	1550	1700	1550-1700
879	4	MT	S	15	13	482	1820	1900	1820-1900
896	5	MT	S	2	2	35	1820	1900	1820-1900
910	5	MT	S	23	20	316	1805	1900	1820-1850
921	4	MT	M	36	29	870	1770	1840	1790-1830
930	5	MT	S	1	1	15	1820	1900	1820-1900
939	5	MT	S	6	6	386	1800	1900	1800-1840
941	5	MT	S	1	1	46	1570	1846	1612-1800
944	5	MT	S	24	23	331	1770	1840	1800-1840
949	5	MT	S	17	17	265	1770	1840	Mid 19th century
968	4	MT	S	7	5	216	1780	1900	19th century
970	4	MT	M	52	37	1363	1820	1900	1820
976	4	MT	S	6	6	172	1820	1900	1820-1900
978	4	MT	S	16	13	912	1780	1900	1780-1830
979	4	MT	S	20	11	284	1775	1840	Early 19th century

Context	Phase	Trench	Size	SC	ENV	Weight (g)	Context ED	Context LD	Context considered date
980	5	MT	S	25	21	198	1805	1900	1815-1840
988	4	MT	L	267	135	9735	1825	1900	1825-1900
989	5	MT	S	1	1	13	1760	1830	1760-1830
1000	4	MT	M	37	28	876	1770	1840	1815-1850
1002	4	MT	S	16	13	1007	1800	1900	1800-1850
1003	5	MT	S	11	10	75	1794	1900	1794-1830
1007	4	MT	S	2	2	54	1770	1900	1770-1900
1010	4	MT	S	25	20	1240	1770	1840	1790-1840
1011	5	MT	S	8	8	138	1770	1840	1815-60
1019	4	MT	L	541	235	16804	1850	1900	1850-1900
1020	5	MT	S	20	18	328	1770	1840	1815-1840
1025	5	MT	S	4	4	24	1770	1840	1770-1830
1029	5	MT	S	11	11	217	1770	1820	1770-1820
1032	5	MT	S	5	5	21	1770	1840	1770-1830
1038	4	MT	S	12	12	503	1770	1840	19th century
1041	5	MT	S	6	6	314	1770	1840	1770-1840
1050	5	MT	S	21	15	315	1770	1840	1770-1830
1053	4	MT	L	166	66	10846	1820	1900	1820-1840
1064	5	MT	S	7	7	311	1760	1830	1760-1830
1069	5	MT	S	6	6	62	1775	1830	1775-1830
1085	5	MT	S	5	5	52	1775	1830	1775-1830
1092	5	MT	S	10	10	94	1770	1840	1815-1840
1097	4	MT	M	72	48	4754	1825	1900	1825-1840
1101	3	MT	S	27	20	499	1780	1900	1780-1830
1107	5	MT	M	52	44	2032	1810	1840	1810-1840
1111	5	MT	S	4	4	47	1790	1820	1790-1820
1112	5	0	S	9	6	305	1775	1840	1775-1840
1121	3	MT	S	5	5	84	1760	1830	1760-1780
1131	5	MT	S	20	19	225	1770	1840	1790-1840
1137	4	MT	S	7	5	188	1770	1840	1770-1840
1151	4	MT	S	2	2	100	1800	1900	1800-1846
1152	3	MT	S	7	3	217	1770	1840	1815-1840
1157	3	MT	S	1	1	25	1570	1846	1612-1800
1160	2	MT	S	9	9	887	1770	1840	1830-50
1174	4	MT	S	30	15	979	1770	1840	1790-30
1182	4	MT	S	4	4	63	1760	1830	1760-1830
1188	3	MT	S	7	3	74	1570	1846	End 18th century
1189	4	MT	S	1	1	21	1580	1900	1580-1900
1198	5	MT	S	29	25	676	1820	1840	1820-1840
1199	4	MT	L	130	70	4620	1850	1900	1850-1900

Context	Phase	Trench	Size	SC	ENV	Weight (g)	Context ED	Context LD	Context considered date
1209	3	MT	L	142	82	6362	1820	1900	1820-1840
1213	3	MT	S	7	5	476	1770	1820	1770-1820
1221	3	MT	S	5	3	1251	1760	1830	1760-1770
1238	5	MT	S	3	3	51	1780	1900	1780-1900

Table 12. SMC11: Distribution of the post-Roman pottery showing the phase, trench, size of the assemblage, the number of sherds (SC), Estimated number of vessels (ENV), weight, the earliest and latest date for the latest pottery type present, and a spot date (context considered date) for each context pottery was recovered from. MT: Mitigation Trench.

Phase 2

A very small quantity of pottery was recovered from phase 2 and comprised nine sherds/9 ENV/887g. It was found exclusively in context [1160], a layer of blue clay. The pottery was fragmentary, consisting of contemporaneous 19th-century wares (CREA DEV, LONS, PEAR, PEAR TR, PMR and RBOR), indicating a deposition date of AD 1830-50.

Phase 3

The pottery from phase 3 amounted to a total of 201 sherds/122 ENV/8.988kg which was recovered from eight contexts. The principal type comprises the industrial finewares of which there are 56 sherds/29 ENV/965g, followed by English delftware (48 sherds/19 ENV/1.457kg) and coarse London redwares (33 sherds/25 ENV/29.22kg) with smaller quantities of Surrey-Hampshire borderer wares and English stonewares and imports with various origins (non-local, imports, English porcelains and Essex finewares) accounting each for six sherds or less.

The majority of the ceramics in this phase are associated with the infilling of ditch [1233]/[1247]. Notable items from this feature are the LONS and PMR tongue pans (found in fills [1152] and [1209] respectively) and sherds of tankards; one each present in PEAR SLIP and SWSG (fill [1209]) and probably derived from local public houses. The red border ware warming pans were recovered from fills [1213] of the cemetery wall construction cut [1214] and [1221] from posthole [1222].

Phase 4

A total of 1638 sherds/894 ENV/59.266kg of pottery came from phase 4. The ceramic profile for this phase is slightly different compared to the previous one, although industrial finewares continued to be most frequent pottery type with 790 sherds/346 ENV/11.608kg. The London area coarse red earthenwares make up 335 sherds/170

ENV/23.737kg and mostly comprised contemporaneous PMR, particularly flower pots 129 sherds/63 ENV/87.10kg, while the lead making industrial forms are represented by 20 sherds/17 ENV/1.386kg. Additionally English stonewares are a notable component of the pottery in this phase and comprise 138 sherds/104 ENV/10.733kg representing bottles (ENGS and LONS), plates (SWSG), jugs (LONS) and tankards (LONS, SWSG and SWSL), while other unusual forms include LONS mortars and tongue pans. Surrey-Hampshire border wares were also important during this phase and include 124 sherds/84 ENV/6.132kg mostly in the form of red border wares mostly chamber pots. English delftware make up 115 sherds/89 ENV/2.043kg, much of which was residual. Non-local wares were found with 68 sherds/45 ENV/2.934kg and were recorded in the form of yellow ware (plain and slip-decorated), Sunderland coarse wares and combed slipwares which were mostly present in the form of bowls or dishes. Imported wares included a notable quantity (48 sherds, 48 sherds/1.411kg) comprised mostly Chinese porcelain tea and table wares. Other imports of note are two Italian oil jars (MOLJ), besides residual North Italian marbled slipware bowls and German stonewares. There is a small quantity of English porcelain (7 sherds/5 ENV/20g) representing tea wares. Other pottery types are small in quantity with one or two sherds present, such as residual medieval and early post-medieval wares.

A notable quantity of pottery was recovered from fills [988] and [1019] of ditch [1233]/[1247] which was noticeable for containing items from a drinking establishment such as three barrel-shaped jugs and a tankard in PEAR SLIP, decorated in joggled brown, tan and white slip, besides the body sherd of a LONS tankard incised 'Lemo[n]...'. Also present is a LONS mortar and industrial finewares in the form of tea wares and table wares, particularly with dinner plates with the Willow pattern. A square dish in Red border ware, constitutes a form not previously known, while the occasional presence of a PMR bowl with a rounded/hemispherical profile and dated to the early 19th century is unusual.

Fills [1038] and [1053] of the ditch, produced sizeable quantities of pottery which were notable for the bases of two Italian oil jars and a tankard in PEAR SLIP, decorated with brown, tan and white joggled slip, besides an applied badge with floral moulded decoration and the legend 'IMP[ERIAL]'. The latter is typical of a vessel used in a public house. There are also fragments from two LONS tongue pans.

The construction cut [1184] for the crypt contained in its fill [1199] a complete early 19th-century tin-glazed ointment pot (TGW LATE), a PEAR SLIP tankard and a barrel-shaped jug with an applied badge decorated with pendants and a garland above 'IMPERIAL' which indicates another public house item. The presence of a green

glazed English majolica dish decorated with moulded leaves indicated that the deposition of this deposit occurred in the late 19th century.

Fill [1002], found in feature [1001] produced a PMR flanged lid and fragments of a red border ware bed pan. Pottery was also recovered from a number of layers and levelling deposits: [733], [800], [824], [850] [921], [879], [861], [968], [978], [1007], [1010], [1097] and [1174]. Fragments of the PMR white lead making vessels were found in many of these deposits,

Phase 5

This phase produced the largest quantity of pottery: 2031 sherds/1717 ENV/30.827kg. Industrial finewares continued to be the most frequent pottery type (2031 sherds/1717 ENV/30.827kg), followed by London area coarse red earthenwares (451 sherds/370 ENV/13.738kg), then stonewares (254 sherds/235 ENV/4.528kg), Surrey-Hampshire border wares (150 sherds/135 ENV/2.754kg), imported wares (77 sherds/74 ENV/963g) and non-local wares (64 sherds/59 ENV/1.215kg). Other sources for the pottery are represented by 20 sherds or less except for English porcelains which were residual.

The pottery from this phase was in a very fragmentary state and was recovered from a small number of layers, cemetery soils and a large number of grave fills. The latter were mostly dated to the 19th century by the pottery recovered from them. From the grave fills came a number of sherd links to vessels in earlier phases, such as the PMR white lead making vessels and the PEAR SLIP tankards for use in a drinking establishment. Pottery grave goods have been reported from other excavations on London cemeteries (J. Pearce, pers. comm.), however the absence of complete items from this phase indicates that this burial practice was absent across the study area. Therefore it appears that the pottery found in the graves in this phase was simply derived from backfilled material from deposits the grave cuts truncated.

Phase 6

A small quantity of pottery was recovered from phase 6 comprising 21 sherds/21 ENV/481g. The breakdown of the quantifications of the sources of the pottery comprises industrial finewares (ten sherds/10 ENV/164g), English stonewares (six sherds/6 ENV/168g) and local coarse redwares as three sherds/3 ENV/109g, with single sherds of border ware and delftware. Pottery was only recovered from two deposits: the fill of crypt 23 and backfill [76] for the construction cut of the church. The material was in an extremely fragmentary state and the latest pottery types dated to the 19th century and include some sherds derived from earlier phase deposits.

Significance of the collection

The pottery has some significance at a local level. The post-Roman ceramic profile of the site is in keeping with the London area and Southwark. The medieval pottery spans the period 1050-1500, although it all appears to be residual. The sherd of Scarborough ware is a rare find for Southwark, although it has been reported previously from excavations at Borough High Street. The post-medieval component of the pottery has a small number of elements of interest. However, it is not certain how much of the material was derived from an on-site source and may represent material dumped on the study area from other locations in Southwark, besides the Elephant and Castle environs. Certainly, there is the suggestion for industrial activity on or close to the site and predating the church in the form of the PMR white lead manufacturing vessels. The presence of sugar cone moulds and waster material from delftware and stoneware Southwark pot houses is not unexpected as these are frequently found on Southwark archaeological excavations and demonstrate that this industry disposed of waste in any location available. The presence of a small but notable number of redware and stoneware tongue pans is also of interest and may be an indication of a local butchers shop or meat processing factory in the vicinity. There is a notable quantity of horticultural vessels in the form of flower pots and seed pans, which could have derived from gardens on the site or nearby. Additionally of interest are a number of 19th-century vessels associated with a drinking establishment and two Italian oil jars may reflect a nearby oil or colour shop. These are most obvious in the form of tankards in stonewares and particularly slip decorated pearl ware and bear marks to indicate official measurements (Rock 2006).

Potential

The pottery has the potential to date the features in which it was found and to provide evidence relevant to sequence. A number of pottery vessels merit illustration or photographing. The medieval pottery has no potential to further an understanding of this material. The post-medieval pottery has some potential to be related to local industry, such as white lead making and other businesses, such as butchers, oil or colour shops and inns or public houses.

Recommendations for further work

A small publication report is recommended on the pottery concentrating on vessels that may be associated with local businesses in the area of Elephant and Castle. Up to ten items require illustrating or photographing.

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APPENDIX 4: CLAY TOBACCO PIPE ASSESSMENT (SMC11)

By Chris Jarrett

Introduction

A small sized assemblage of clay tobacco pipes was recovered from the site (four boxes). Most fragments are in a good condition, indicating that they had been deposited soon after breakage; although elements of some groups of clay tobacco pipes contained small quantities of residual material. Clay tobacco pipes were found in 118 contexts in the form of small (under 30 fragments) and seven medium sized (31-100 fragments) groups.

All the clay tobacco pipes (959 fragments, of which seventeen are unstratified) were entered in to a digital database and classified using Atkinson and Oswald's (1969) typology (AO); 18th-century examples were recorded following Oswald's (1975) typology and prefixed OS. All decorated and maker marked pipes were given a unique registered find number. The pipes have been further coded by decoration and quantified by fragment count. The degree of milling on 17th-century examples has been noted and recorded in quarters (see Table 1), besides their quality of finish (see Table 2). The tobacco pipes are discussed by type and distribution.

The Clay Tobacco Pipe Types

The clay tobacco pipe assemblage from the site consists of 262 bowls, 687 stems and eleven nibs (mouth parts). The clay tobacco pipe bowls range in date between c. AD 1610 and 1910. All of the bowls show evidence of having been smoked unless otherwise specified.

Bowl type	Earliest date	Latest date	Not calculated (damaged bowls)	Extent of bowl rim milling					Total
				None	Quarter	Half	Three quarters	Full	
AO6	1610	1640	1						1
AO12	1640	1670	1						1
AO9	1640	1660	1						1
AO13	1660	1680					1		1
AO15	1660	1680	8	1	1	10		5	25
AO18	1660	1680				1	1		2

Bowl type	Earliest date	Latest date	Not calculated (damaged bowls)	Extent of bowl rim milling				Total
				None	Quarter	Half	Three quarters	
OS10/AO24	1680	1760	1					1
AO19	1680	1710	3		1	1	1	6
AO20	1680	1710			1			1
AO21	1680	1710		1				1
AO22	1680	1710	3		1	1		5

Table 1: SMC11: Extent of milling found on 17th-century bowls

Bowl type	Earliest date	Latest date	Not calculated	Poor	Fair	Good	Total
AO6	1610	1640				1	1
AO12	1640	1670			1		1
AO9	1640	1660			1		1
AO13	1660	1680			1		1
AO15	1660	1680	3		17	5	25
AO18	1660	1680			2		2
AO19	1680	1710	2		3	1	6
AO20	1680	1710			1		1
AO21	1680	1710			1		1
AO22	1680	1710	2		2	1	5

Table 2: SMC11: Quality of burnishing found on 17th-century bowls

1610-1640

AO6: one spurred bowl with a damaged rim and evidence of milling. Context [471].

1640-1660

AO9: one spurred bowl with a damaged rim and evidence of milling. Context [651].

1640-1670

AO12: one bowl with a heart-shaped heel with a damaged rim and evidence of milling. Context [467].

1660-1680

AO13: one heeled bowl with a rounded profile. Context [1019].

AO15: 26 spurred bowls with a rounded profile and include tall variants. Contexts [101], [267], [307], [461], [651], [731], [782], [783], [988]: one example each, context [192], two examples, context [1199], three examples, context [1209], five examples and context [1019], seven examples.

AO18: two heeled straight-sided bowls. Contexts [779] and [980].

1680-1710

AO19: six spurred bowls with rounded profiles. Contexts [267], [471], [731], [989], [1000] and [1199] with single examples.

AO20: one heeled bowl with a rounded profile, although recorded as a variant as waisted at the base of the bowl. Context [10119].

AO21: one heeled bowl with a rounded front and straight back. Context [1019].

AO22: five heeled bowls with straight sides and three are notably damaged. Contexts [374], [471], [536], [651] and [1209].

1700-1740

AO24/OS10: one bowl consisting of an OS10 type (see below) which has had its heel removed pre-firing modifying the bowl into an American-type export bowl (AO24). Context [1209].

1700-1740

OS10: 91 heeled, upright bowls with a rounded front and straight back and thick stems. Unmarked bowls or examples with the heel missing were found in a number of contexts: [101], [192], [400], [464], [824], [979], [1038], [1041], [1137] and [1198], contexts [471], [979] and [1101] as two examples each, contexts [267] and [284] both produced three bowls, four bowls were found in context [1199], five were recovered

from [1209], eight from [988] and eighteen occurred in [1019]. The maker marked examples are as follows:

. .: with raised dots on each side, one example. Context [979]: SF232.

? ?: two examples where the initials were illegible. Context [988]: SF245 and SF246.

I ?: two examples where the family initial is uncertain . Context [1019]: SF247 and context [1199]: SF267

T ?: one example where the family initial is uncertain . Context [1199]: SF272.

W ?: two examples where the family initial is uncertain . Context [100]: SF171 and context [267]: SF179.

I A: two examples. Context [1182]: SF265 (the family name is almost illegible), context [1209]: SF274. There are several possible London pipe makers who could have made this bowl and those local to the site are John Adams, 1722 St. Olave's, Southwark and Jonathan Adams, 1733-41, Horsley Down (Oswald 1975, 130; Walker 1981, 177)

T A: one bowl. Context [754]: SF224. There are several possible pipe makers who could have made this pipe although none are as yet documented as local (See Oswald 1975, 130).

H B: three probable bowls. Context [1019]: SF250 and SF254, both with the first initial illegible, context [1209]: SF276. The most likely pipe makers for these bowls were Hennery Blundall (1), 1696 and Henry Blundell (2), 1754-72, Unicorn Alley, Dover Street (Oswald 1975, 131; Hammond 2004).

W B: probably five bowls. Unstratified, SF166, context [1019]: SF 249 and SF249, context [1199]: SF271 and SF273, although the forename is uncertain on the latter. The frequency of this bowl indicates a local pipe maker although one has not been identified yet. Other pipe makers with these initials are known in London (see Oswald 1975, 132).

B C: two bowls. Context [464]: SF192, context [1209]: SF275. A pipe maker with these initials has not been identified in London to date, however these initials are frequent occurrences on OS10 bowls found elsewhere in Southwark and indicates local production.

R C: one bowl. Context [615]: SF208. See Oswald (1975, 134) for possible London pipe makers for this bowl.

W C: one bowl. Context [374]: SF188. See Oswald (1975, 134) for possible London pipe makers for this bowl.

I D: one bowl. Context [1019]: SF253. See Oswald (1975, 135) for possible London pipe makers for this bowl.

N G: probably three bowls. Context [1019]: SF251, SF 252 (first initial unclear) and context [1107]: SF261. The pipe maker is at present not documented, although the frequency of these marked items in Southwark and Lambeth indicates that his or her work shop was located in one of those two areas.

T I: one bowl. Context [1199]: SF268. See Oswald (1975, 139) for possible London pipe makers.

H P: one bowl. Context [483]: SF191. See Oswald (1975, 142) for possible London pipe makers.

E R: one bowl. Context [988]: SF244. Possibly made by Edward Randall, 1719 (Oswald 1975, 143).

E S: one bowl. Context [1199]: SF270. Possibly made by Edward Sheereman, 1696 (Oswald 1975, 145)

I S: one bowl. Context [928]: SF277. See Oswald (1975, 145) for the possible pipe makers.

W SS, one bowl where the earlier family initial S has been recut in the mould with a smaller S. Context [1019]: SF255. The W S initials are fairly common amongst London pipe makers (see Oswald 1975, 146), although at least two contemporaneous with the bowl are known as working in the Southwark parish of St Olave's: William Simkin, 1709, William Simson, 1715 (Walker 1981, 179).

A W: one bowl. Context [393]: SF189. There are three London pipe makers recorded in the 1690's and possibly later who could have possibly made this bowl (See Oswald 1975, 147).

I W: one bowl. Context [668]: SF213. The initials I W are shared by a frequent number of London pipe makers, although John Whitehead, 1721, St Olave's is known to have been local (Walker 1981, 179).

1730-1780

AO26: one damaged, spurred 18th-century bowl was assigned to this category. The item is not maker marked.

OS12: eighteen upright, heeled bowls with a rounded front and straight back and thin diameter stems. Single unmarked examples were found in contexts [58], [263], [467], [651] and [1019]. One damaged bowl has evidence for a raised dot on the left side of the heel (context [742]: SF222). Another item survives as a deep heel with flowers on each side (context [263]: SF177). The maker marked examples are:

R A: one armorial bowl surviving mostly as a heel and decorated with a moulded ribbon with '...EV DIC'. The mould was partially worn. Context [651]: SF212. The pipe maker is currently not documented.

H B: one bowl. Context [1209]: SF278. Probably made by Henry Blundell (2), 1754-72, Unicorn Alley, Dover Street (Oswald 1975, 131; Hammond 2004).

I B: one bowl. Context [1209]: SF277. The initials I B were shared by many documented London pipe makers and none are known to be contemporaneous with the date of the bowl and resident in Southwark (Oswald 1975, 131).

S B: five bowls, contexts [284]: SF181, [471]: SF201, [630]: SF209, [651]: SF210, [944]: SF229. There are a number of London pipe makers who could have made this bowl, except that the frequency these bowls indicates a local pipe maker and that is probably Sarah Bett, 1756, George Street, The Mint, Southwark (Oswald 1975, 132).

T D: one large bowl with the initials on the heel and a incuse shield stamp on the back of the bowl with a crown and ivy leaf design above the initials 'T. D.' and a crown and a scroll with two dots below the letters. Context [284]: SF225. Probably made by Thomas Dormer, 1748-70, Hermitage, Bones Yard Lane, Wapping (Oswald 1975, 135).

G S: one bowl. Context [949]: SF230. Probably made by George Stray ? (2), 1763, Execution dock, Wapping (Oswald 1975, 145).

V W: one bowl. Context [1209]: SF279. Probably made by Valentine Watts, 1749, Lambeth (Oswald 1975, 149).

OS22: one spurred, upright bowl with a rounded front and straight back. Initialled W G. Context [1000]: SF237. Probably made by William Goulding (2) or Gould, 1733-62, Horsely Down (Oswald 1975, 137).

1770-1845

AO27: 46 upright bowls with rounded fronts, straight backs and squared heels. Only one damaged bowl is plain and its heel is missing: context [615]. All of the other AO27 bowls are either decorated, initialled or both. Two damaged bowls have fluting, one with ribs of the same size (context [1131]: SF263), while the other is decorated with fluting of different sizes and oak leaf borders (context [46]: SF196). Another damaged bowl is possibly decorated with a rose and thistle design and oak leaf and grass borders. The spur has smudged marks, possibly wreaths, while the stem has floral motifs (context [747]: SF223). Another fragmentary bowl has oak leaf borders and a motto running around the seam consisting of '...NI ND ...OITON' around a figure, while on the left side survives '...TE MAGNA...' (context [1143]: SF263). There are also a number of maker marked bowls:

* *: two bowls with stars on the heel and different 'Spread Eagle' public house designs. Context [26]: SF169 and context [1010]: SF240.

B : one bowl surviving as mostly a heel and the first initial absent from the mould. Unstratified, SF168.

H B: two plain bowls. Context [374]: SF187 (with a deep oval heel), context [1198]: SF266. Probably Henry Blundell (2), 1754-72, Unicorn Alley, Dover Street (Oswald 1975, 131; Hammond 2004).

T B: four, possibly five bowls, one of which survives only as a heel and the others are decorated with fluting of the same size. Context [471]: SF193 (first initial probably a T), SF194, SF195, SF197 (heel), context [731]: SF219, context [1131]: SF262. There are several contemporaneous pipe makers with these initials who could have made these bowls, none being particularly local (Oswald 1975, 132).

W B: six bowls surviving mostly as heels and include plain and a fluted examples with same sized ribs. Context [574]: SF204, SF205, context [731]: SF216, SF217, context [857]: SF226, context [944]: SF288 (fluted). There are a number of local pipe makers who could have made these pipes, such as William Brown, 1826-7, Trafalgar Place, Locksfields, William James Birch (1), 1828-50, Weymouth Street, Old Kent Road and William Bellamy, 1831-41, Newington parish (Tatman 1994, 105-9).

I D: two bowls. Context [1010], SF238 (plain), SF241 (even sized fluting and oak leaf and grass borders, the D is poorly moulded). A local pipe maker who could have made these bowls was Joseph Doubtfire, Weymouth Street, 1841-58, although elsewhere in London contemporaneous pipe makers with the same initials are known (Tatman 1994, 115; Oswald 1975, 135).

W F. one bowl with oak leaf decoration along the stem and part of a maker's name 'W. FUL...'. Context [651]: SF211. Possibly made by William Fuller, 1817, Bermondsey (Oswald 1975, 136).

I I: three bowls. Context [307]: SF184 (the heel is deep and cylindrical), context [361]: SF185 (mostly heel with a relief decorated stem, context [989]: SF235 (fluting of different sizes). There are a notable number of London pipe makers with these initials, although John Jewester (1-3), 1782-1862, Kent Street is local (Tatman 1984, 124-5; Oswald 1975, 139).

I J: three bowls surviving mostly as heels. Context [471]: SF198, SF202 (fluting of different sizes), context [574]: SF206 (deep heel). For the possible pipe makers of these bowls see I I above.

R M: one bowl decorated with oak leaf and grass borders. Context [1019]: SF257. The only contemporaneous pipe maker recorded in London is R. Moon/Moore, 1805 (Oswald 1975, 142).

W M: one bowl decorated with oak leaf and grass borders. Context [1019]: SF256. Possibly made by William R. Markwell, 1839-51, Walworth (Tatman 1994, 128).

T P: one bowl decorated with fluting of the same size. Context [471]: SF199. Local pipe makers with these initials are Thomas Paine (1 and 2), both 1839 and Thomas William Pain 1845-62, Trafalgar Street (Tatman 1994, 130).

G R: two plain bowls. Context [682]: SF214, context [1137]: SF264. These initials are rare amongst London pipe makers, although a little later than the date of the bowl is recorded George Reynolds, 1853, Violet Place, Parish of Newington (Tatman 1994, 134).

W R: one bowl surviving as a heel. Context [682]: SF214, context [731]: SF220. A possible local pipe maker is William Russel, 1841-51, Nelson Place/Northampton Place/Deans Buildings, Parish of Newington (Tatman 1994, 135).

C S: one bowl with a deep cylindrical heel. Context [307]: SF183. Possibly made by Mrs Cath Shipway, 1844-58, Dockhead or Charles Smith, 1845-51, Peckham (Oswald 1975, 145)

J S: four bowls. Context [125]: SF172 (heel), context [189]: SF173 (plain), context [280]: SF180 (oak leaf and grass border on the front of the bowl), context [471]: SF 200 (heel with evidence of moulded decoration on the bowl). There are numerous contemporaneous London pipe makers with these initials and those working in Southwark or south of the river are John Smith (4), 1809-11, Peckham and in the parish of Newington: Jephtha Stubbs, 1831, James Swinyard, c. 1803-52 (Oswald 1975, 145; Tatman 1994, 137-9).

W W: three probable bowls. Context [1010]: SF239; heel has flower marks and the bowl is decorated with even fluting. Leaf borders are found on the stem as are lozenges, the apexes ending in a flower and a stem towards the nib, while in the lozenges have the legends 'WILLIAMS' and 'KENT ST: LONDON'. Context [1019]: SF258; plain, context [1199]: SF267; mostly heel with the first initial broken off and evidence of fluting on the bowl. These pipes were probably made by two members of the same family called William Williams, operating 1822-64, Kent Street (Tatman 1994, 144-5).

1820-1860

AO28: eleven spurred bowls, of which four examples are unmarked and all appear to be plain (contexts [29], [366] (both with damaged spurs that may have been initialled),

[717] and [989] with a good burnish. One damaged bowl is recorded with a leaf border on the back of the bowl and an unmarked spur (context [125]: SF281). The marked bowls are recorded as:

* *: one bowl with a trimmed spur with flower type marks and an oak leaf and grass border on the front of the bowl. The mould appears to have been modified with possible earlier initials changed into floral marks. Context [1019]: SF259.

W B: two bowls. Unstratified; SF167; mostly spur and context [1010]; SF242; plain. For the possible makers see the AO27 W B entry above

J J: one damaged bowl with its front and spur missing, although a circular incise stamp is found on the back of the bowl with a fine notched border containing a scroll above and below the name 'JEWS/TER'. Context [1000]: SF236. See AO27 John Jewester entry above for the working dates of this pipe makers.

?M: one poorly moulded bowl decorated with leaf borders and the last initial on the spur is illegible. Context [284]: SF 182.

R W: one bowl with an oak leaf/wheat ear and grass border only on the front of the bowl. Context [427], SF190. No 19th-century pipe makers are currently documented with these initials

1840-1880

AO29: two heeled bowls with angled rims. One bowl is damaged and has fluting of the same size (context [731]: SF218). The second bowl is initialled I S, context [540]: SF 203, although the marks are worn. For the possible makers of this pipe see the AO28 entry for I S above.

1840-1910

AO30: one plain bowl without an heel or a spur. The bowl has on its back an oval stamp 'T. GERRARD/LONDON', context [26] SF 170. The stamp has been double impressed and refers to Thomas Gerrard, New Kent Road, recorded in trade directories between AD 1864-68 (Oswald 1975, 137).

Bowl fragments and other items of note

Fragments from some 45 bowls are present in the assemblage that could not be confidently assigned to a type. A number are however either maker marked and/or decorated. A 17th-early 18th-century dated stem recovered from context [988] has incised diagonal and 'vertical' lines around its circumference (SF233). From context

[22] was a fragment of a bowl broadly dated c. AD 1680-1740 with a line of rouletting / milling around the circumference of the stem. Of the same date, the heel of a bowl was recovered from deposit [250] where only the family initial C was legible with a crown above it (SF176). A number of 19th-century bowl fragments are of note, such as a fragment of a Masonic bowl from context [263] (SF178) while three fragments have incuse circular stamps on the back of the bowls with names in serif lettering. The first contains part of the name '...FLO...' (context [574]: SF207), the second has the name [JEWS]TER [LON]DON' written around a central oval (context [1107], SF282) and the third has the name'[B]ROWN' with scrolls above and below it (context [192], SF704). There are a number of late 18th and 19th-century London pipe makers with the family name Brown (see Oswald 1975, 130), although a small number with this name were also working in the parish of Newington, such as William Brown, 1826-7, Trafalgar Place (Tatman 1994, 109) while the others were working in the late 19th century and if they used stamps to denote their pipes then sans serif lettering would more than likely have been used. Another fragmentary bowl has the name '[W]ILLIAMS' and '[KENT] STREET' in relief on the stem (Context [1010]: SF243), while a stem from context [374] also has on it part of the address 'KENT [STREET] and floral; linear borders (SF186)).

Distribution

The distribution of the clay tobacco pipes is shown in Table 3, which demonstrates the trench location, phase, number of fragments, assemblage size, date range of the latest bowl type (context ED and context LD) and a considered deposition date for each context the material occurred in. The clay tobacco pipes were recovered from Phases 3-6. A brief summary of the clay tobacco pipes by phase is provided.

Context	Description	Trench	Phase	No of frags	Assem . size	Context ED	Context LD	Context considered date
26	Cemetery soil	MT	5	36	S	1840	1910	1840-1910
39	Fill of [79]	3	-	3	S	1580	1910	1580-1910
47	Fill of grave [50]	MT	5	2	S	1580	1910	1580-1910
58	Fill of grave [61]	MT	5	14	S	1730	1780	1730-1780
76	Fill of [77]	MT	6	4	S	1580	1910	1580-1910
100	Fill of coffin [89]	MT	5	1	S	1700	1740	1700-1740
101	Fill of Charnel Pit [102]	MT	5	36	S	1700	1740	1700-1740
120	Fill of grave [123]	MT	5	3	S	1580	1910	1580-1910
125	Fill of grave [126]	MT	5	60	S	1820	1860	1820-1845
154	Fill of grave [155]	MT	5	1	S	1580	1910	18th century
158	Fill of grave [161]	MT	5	10	S	1580	1910	1580-1910
189	Coffin for Skeleton	MT	5	1	S	1780	1845	1780-1845

Archaeological Excavation

Context	Description	Trench	Phase	No of frags	Assem . size	Context ED	Context LD	Context considered date
	[188]							
192	Cemetery soil	MT	5	130	S	1700	1740	Late 18th-19th century
193	Fill of grave [196]	MT	5	4	S	1580	1910	1580-1910
199	Cemetery soil	MT	5	4	S	1580	1910	Mid early18th century
204	Fill of grave [207]	MT	5	4	S	1580	1910	Late 18th-19th century
220	Fill of grave [223]	MT	5	2	S	1580	1910	Late 18th-19th century
220	Fill of grave[223]	MT	5	2	S	1580	1910	Late 18th-19th century
242	Construction cut [77] for Church	MT	5	2	S	1580	1910	1580-1910
249	Fill of grave [252]	MT	5	2	S	1580	1910	1580-1910
250	Coffin for skeleton [251]	MT	5	1	S	1730	1780	1730-1780
262	Layer	MT	5	18	S	1580	1910	1580-1910
263	Fill of grave [266]	MT	5	40	S	1730	1780	19th century
267	Dump/levelling layer	MT	5	486	M	1700	1740	1700-1740
280	Fill of grave [323]	MT	5	10	S	1775	1845	1800-1845
284	Fill of grave [287]	MT	5	108	S	1820	1860	1820-1845
286	Coffin for skeleton [285]	MT	5	3	S	1580	1910	1580-1910
295	Fill of grave [298]	MT	5	14	S	1580	1910	17th-18th c
301	Fill of grave [323]	MT	5	1	S	1580	1910	1580-1910
307	Coffin for skeleton [306]	MT	5	16	S	1770	1845	1770-1845
320	Fill of grave [323]	MT	5	4	S	1580	1910	1580-1910
328	Fill of grave [329]	MT	5	4	S	1580	1910	1580-1910
361	Fill of grave [388]	MT	5	18	S	1770	1845	1770-1845
366	Dump/levelling layer	MT	5	8	S	1820	1860	1820-1860
374	Fill of grave [377]	MT	5	168	S	1770	1845	1800-1845
389	Fill of grave [390]	MT	5	1	S	1580	1910	1580-1910
393	Fill of grave [394]	MT	5	36	S	1700	1740	1700-1740
400	Fill of grave [403]	MT	5	1	S	1700	1740	1700-1740
404	Fill of grave [405]	MT	5	4	S	1580	1910	1580-1910
427	Fill of grave [430]	MT	5	12	S	1820	1845	1820-1840
446	Fill of grave [449]	MT	5	1	S	1700	1740	1700-1740
461	Fill of grave [463]	MT	5	1	S	1660	1680	1660-1680
464	Fill of grave [466]	MT	5	4	S	1700	1740	1700-1740
467	Levelling layer	MT	5	4	S	1730	1780	1730-1780
471	Cemetery soil	MT	5	1491	M	1770	1845	1800-1820

Context	Description	Trench	Phase	No of frags	Assem . size	Context ED	Context LD	Context considered date
483	Fill of grave [486]	MT	5	1	S	1700	1740	1700-1740
487	Fill of grave [486]	MT	5	3	S	1580	1910	1580-1910
493	Fill of grave [711]	MT	5	2	S	1580	1910	1580-1910
508	Fill of grave [614]	MT	5	16	S	1580	1910	1580-1910
523	Fill of grave [526]	MT	5	2	S	1580	1910	1580-1910
533	Adult inhumation	MT	5	1	S	1580	1910	1580-1910
536	Fill of grave [539]	MT	5	1	S	1680	1710	1680-1710
540	Fill of Grave [614]	MT	5	6	S	1770	1845	1770-1845
555	Fill of grave [558]	MT	5	1	S	1580	1910	1580-1910
574	Cemetery soil	MT	5	368	M	1770	1845	1770-1800
597	Fill of grave [600]	MT	5	2	S	1580	1910	1580-1910
602	Fill of grave [605]	MT	5	1	S	1580	1910	1580-1910
615	Fill of grave [614]	MT	5	28	S	1770	1845	1770-1845
625	Fill of grave [622]	MT	5	12	S	1700	1845	1700-1845?
630	Fill of grave [634]	MT	5	15	S	1730	1780	1730-1780
651	Cemetery soil	MT	5	288	M	1770	1845	1800-1845
664	Fill of grave [661]	MT	5	18	S	1700	1910	18th-19th c
668	Fill of grave [667]	MT	5	1	S	1730	1780	1730-1780
682	Fill of grave [813]	MT	5	20	S	1780	1820	1780-1820
686	Fill of grave [689]	MT	5	1	S	1580	1910	1580-1910
717	Fill of grave [716]	MT	5	24	S	1820	1860	1820-1860
724	Fill of grave [725]	MT	5	48	S	1780	1820	1800-1845
730	Fill of grave [711]	MT	5	2	S	1580	1910	1580-1910
731	Infilling / levelling deposit	MT	4	117	S	1770	1845	1800-1845
742	Fill of grave [743]	MT	5	10	S	1700	1740	1700-1740
747	Fill of grave [704]	MT	5	1	S	1770	1845	1800-1845
754	Fill of grave [757]	MT	5	32	S	1700	1740	1700-1740
766	Fill of grave [769]	MT	5	1	S	1580	1910	1580-1910
779	Fill of grave [778]	MT	5	12	S	1660	1680	1660-1680
782	Fill of grave [813]	MT	5	10	S	1660	1680	1660-1680
783	Fill of grave [786]	MT	5	6	S	1660	1680	1660-1680
795	Fill of grave [796]	MT	5	4	S	1580	1910	1580-1910
824	Layer of clay silt	MT	4	15	S	1730	1780	1730-1780
840	Layer of sandy clay	MT	4	3	S	1580	1910	1580-1910
848	Fill of grave [796]	MT	5	1	S	1580	1910	1580-1910
850	Layer of silty clay	MT	4	6	S	1580	1910	1580-1910
857	Fill of grave [854]	MT	5	24	S	1700	1770	1700-1770
860	Levelling / infilling deposit	MT	4	1	S	1580	1910	1730-1910

Context	Description	Trench	Phase	No of frags	Assem . size	Context ED	Context LD	Context considered date
864	Fill of grave [865]	MT	5	4	S	1580	1910	1580-1910
868	Fill of grave [871]	MT	5	1	S	1580	1910	1580-1910
911	Fill of grave [914]	MT	5	1	S	1580	1910	1580-1910
921	Levelling / infilling deposit	MT	4	3	S	1580	1910	1580-1910
928	Fill of grave [925]	MT	5	8	S	1700	1740	1700-1740
944	Fill of grave [947]	MT	5	44	S	1770	1845	1800-1845
949	Fill of grave [952]	MT	5	16	S	1770	1845	1800-1845
949	Fill of grave[952]	MT	5	8	S	1770	1845	1800-1845
970	Fill of [992]	MT	4	3	S	1580	1910	1580-1740
975	Levelling deposit	MT	4	1	S	1580	1910	1580-1910
976	Fill of [977]	MT	4	2	S	1580	1910	1580-1910
979	Fill of [987]	MT	4	36	S	1700	1740	1700-1740
980	Fill of grave [983]	MT	5	12	S	1660	1680	1660-1680
988	Fill of [1206]	MT	4	1136	M	1730	1780	1730-1780
989	Fill of grave [693]	MT	5	16	S	1820	1860	1820-1845
1000	Fill of [999]	MT	4	20	S	1820	1860	1820-1860
1003	Fill of grave [1006]	MT	5	10	S	1580	1900	18th-19th century
1010	Levelling layer	MT	4	77	S	1820	1845	1820-1845
1019	Fill of [1233] / [1247]	MT	4	2684	M	1820	1860	1820-1845
1020	Fill of grave [1057]	MT	5	9	S	1580	1910	1580-1910
1025	Fill of grave [1024]	MT	5	3	S	1580	1910	1580-1910
1038	Ditch fill	MT	4	1	S	1700	1740	1700-1740
1041	Fill of grave [1044]	MT	5	1	S	1700	1740	1700-1740
1050	Fill of grave [1049]	MT	5	2	S	1580	1910	1580-1910
1101	Secondary fill of [1247]	MT	3	45	S	1700	1740	1700-1740
1107	Fill of grave [1104]	MT	5	32	S	1800	1900	19th century
1121	Dump/levelling layer	MT	3	1	S	1580	1910	1580-1910
1131	Fill of grave [1132]	MT	5	20	S	1770	1845	1800-1845
1137	Secondary fill of [1142]	MT	4	4	S	1770	1845	1770-1845
1157	Primary fill of [1247]	MT	3	1	S	1580	1910	1580-1910
1174	Levelling layer	MT	4	1	S	1580	1910	1580-1910
1182	Fill of [1183]	MT	4	6	S	1700	1740	1700-1740
1198	Fill of grave [1195]	MT	5	27	S	1770	1845	1770-1845
1199	Fill of [1184]	MT	4	544	M	1770	1845	1770-1845
1209	Primary fill of [1233]	MT	3	456	S	1730	1780	1730-1780
1238	Fill of grave [1235]	MT	5	2	S	1580	1910	1580-1910

Table 3: SMC11: distribution of the clay tobacco pipes showing for each context clay tobacco pipes occurred in, the Trench location, type of deposit, phase, number of

fragments, size of the assemblage, the date range of the latest bowl type (Context ED and Context LD) and a spot date (context considered date). MT: Mitigation Trench.

Phase 3

A total of 35 fragments of clay tobacco pipe were recovered from this phase consisting of 22 bowls and 13 stems and these were found in four contexts: [1101], [1121], [1157] and [1209]. Ditch [1247] produced in its primary fill [1157] only stems broadly dated to AD 1580-1900. The secondary fill [1101] produced five stems and four bowls, of which two could be classified as OS10 types and these dated the deposit to AD 1700-40.

Ditch [1233] produced 24 fragments of clay tobacco pipes in its primary fill [1209] with the bowl types ranging in date to between AD 1660-1780 and many of the bowls were residual. The latest bowls consisted of four OS10 shapes and three AD 1730-1780 dated OS12 items. The latter contains clay tobacco pipes made by Henry Blundell (2) indicating deposition after c. 1745. Also of note in this deposit was the OS12 bowl modified to resemble an American export pipe.

Phase 4

From this phase were recovered 232 fragments of clay tobacco pipe consisting of 98 bowls, 133 stems and one nib and these were recorded in nineteen contexts. The only bowls found in fill [979] of robber cut [987] and fill [1182] of the wall repair cut [1183] were the OS10 type dating these deposits to c. 1700-40, however the material was fragmentary and indicates probable residual material. The OS12 bowl was the latest type found in layers [824] and [860], as well as fill [988] of ditch [1233]/[1247] indicating a deposition date of 1730-80.

The construction cut [1184] of the crypt produced in its back fill [1199] mostly 18th-century bowl types, except for a single 1770-1845 dated AO27 bowl with fluted decoration (SF267), the latter indicating the bowl dated more so to the 19th century. The latter type of decorated bowl also dated the secondary fill [1137] (SF264) of robber cut [1142].

A medium sized group of clay tobacco pipes was recovered from a later fill [1019] of ditch [1233]/[1247], which contained residual 17th- and 18th-century clay tobacco type bowls, although the latest bowls recovered were the AO27 (SF256, SF257 and SF258) and AO28 (SF259) types, both being concurrent during the period of c.AD 1820-45. Similarly dated was the levelling layer [1010] which produced four AO27 bowls (SF238, SF239, SF240 and SF241) and a single AO28 bowl (SF242).

The latest bowl recovered from fill [1000] of cut [999] was an AO28 bowl stamped with the name of the pipe maker Jewster (SF236) and indicated a deposition date of

AD 1820-60. The infilling / levelling deposit [731] produced mostly AO27 bowls (SF216, SF217, SF219 and SF220) although the latest bowl was a AD 1840-80 dated AO29 bowl (SF218).

Phase 5

There were 92 layers and fills in this phase which produced clay tobacco pipes with a total of 655 fragments which can be divided in to 138 bowls, 508 stems and nine nibs. The material was recovered from a number of cemetery soils: [192], [199] [471] [574] and [651], which all produced AO27 type bowls as the latest shape, except for deposit [26] which had an SF 1840-1910 dated AO30 bowl stamped 'T. GERRARD/LONDON' (SF170). The stamp probably refers to Thomas Gerrard, New Kent Road, working c. AD 1864-68 (Oswald 1975, 137).

Clay tobacco pipe fragments were also recovered from 78 grave fills and most contained stems. Some 19th-century decorated bowls as AO27 and AO28 types dated some of the burials more precisely (see Table 3).

Phase 6

One deposit, fill [76] of the construction cut [77] for the church produced clay tobacco pipes in this phase. This material consisted of six stems broadly dated to c. AD 1580-1910.

Significance

The clay tobacco pipes are of some significance at a local level and it is assumed that the assemblage is derived from sources on the site. The bowl types present fit within the typology for London and a notable number of the makers marks can be associated with pipe makers documented as working in Southwark. There is no evidence for clay tobacco pipe production on the site. Clay tobacco pipe assemblages have been recovered from other local excavations, although none have been published from the Elephant and Castle environs. Further to the north, comparable clay tobacco pipe assemblages have been recovered from the former Post Office sorting office, Swan Street (SWN98: Jarrett 2000) and Tabard Square (LLS02: Jarrett 2009).

Potential

The main potential for the tobacco pipes is as a dating tool for the contexts in which they were found and to provide a sequence for them. A number of clay tobacco pipe

bowls merit illustration. The assemblage also has the potential to demonstrate the nature of the local clay tobacco pipe industry or what was being marketed to the area.

Recommendations for further work

A small publication report is recommended for the clay tobacco pipes, supplemented by six bowl illustrations.

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APPENDIX 5 - ASSESSMENT OF ANIMAL BONE RECOVERED

By Kevin Rielly

Introduction

Animal bones were recovered across the major phases of pre-cemetery and cemetery usage of the site with most of the assemblage dated up to the mid 19th century taken from the large ditch and thereafter from the gravefills (see Table 1). It can be supposed that a large proportion of the site assemblage from the later levels will be redeposited, however, this is not obviously shown by the bones. These are generally well preserved throughout, showing a minimal level of fragmentation.

Phase:	3	4	5	6
Type				
Grave			239	
Ditch	87	197		
Construction		46	2	4
Cemetery soil			186	
Levelling dumps	5	76	47	
Other		14	4	
Grand Total	92	333	478	4

Table 1. Distribution of the bone assemblage by type of deposit.

Methodology

The bone was recorded to species/taxonomic category where possible and to size class in the case of unidentifiable bones such as ribs, fragments of longbone shaft and the majority of vertebra fragments. Recording follows the established techniques whereby details of the element, species, bone portion, state of fusion, wear of the dentition, anatomical measurements and taphonomic including natural and anthropogenic modifications to the bone were registered. Shoulder heights mentioned in the text are taken from factors described in Boessneck and von den Driesch (1974).

Description of faunal assemblage

The site provided a grand total of 922 hand collected animal bones, of which 907 were allocated to the requisite phases (see Table 2).

Phase:	3	4	5	6
Species				
Cattle	17	66	82	1
Equid		3	1	1
Cattle-size	26	73	75	
Sheep/Goat	21	93	129	1
Pig	7	9	18	
Sheep-size	8	28	83	
Fallow deer		1		
Roe deer	1			
Dog	2	19	25	1
Cat	8	28	36	
Hare	1			
Rabbit	1	5	13	
Rat			1	
Small mammal			4	
Chicken		7	4	
Goose			2	
Mallard		1	5	
Grand Total	92	333	478	4

Table 2. Hand collected species abundance by phase

Phase 3 – mid 18th to mid 19th centuries

The great majority of the bones for this phase were recovered from the lower fills of ditch [1233]/[1247] (see Table 1), the assemblage consisting of the major mammalian domesticates, some game plus dog and cat. The quantities are not large, but the somewhat higher proportion of sheep/goat relative to cattle clearly follows the abundance pattern noticed at several other post-medieval sites in London (see for example Rielly in prep a). All three domesticates are represented by a wide distribution of skeletal parts signifying the deposition of waste from various sources, including butcher and consumer. Each domesticate is also represented by a proportion of large animals, accounting for about 30% of the individual collections, this demonstrating the late post-medieval development of improved 'breeds' (see Rixson 2000, 215-222). Of particular interest was the recovery of a fused radius and ulna of a large and robust pig with a shoulder height of 669.6mm. This clearly represents one of the new breeds, these created by crossing indigenous pigs with imported varieties from China and a little later from Italy (ibid, 221-2). Referring to 'type', it can be seen that as well as some large sheep, there is one example of a small hornless (polled) variety. However, it is difficult to assess the proportion of such a 'type' as no other posterior skull fragments were present in this or indeed in any of the later collections. Neither were there any loose horncores.

This collection also provided a few sawn items, a cattle-size rib and a pig fibula. It has been shown that the use of the saw for butchery purposes is essentially a late post-medieval trait (see Albarella 2003, 74).

Phase 4

Most of the bones were derived from the infilled ditch, although a sizeable proportion was recovered from a series of levelling deposits as well as from the construction cut of the large mortuary structure. It can be supposed that the latter group was principally redeposited from the underlying ditch fills. These features/layers provided a rather similar collection to that previously described, here concerning domesticated abundance, body part distribution and the good representation of late post-medieval traits. There is however, a wider variety of species, with the earliest occurrences of equid and poultry, as well as a somewhat greater abundance of cat and dog bones. The equid bones were taken from at least 2 adult individuals, one of which can be described as a large pony with a shoulder height of 1548.7mm. It can be assumed that these individuals derived from a local knacker's yard, the absence of other parts suggestive of post-mortem use or simply the action of scavengers in association with redeposition. Evidence of further activity beyond general household usage was provided by one of the cat bones, a near complete skull, taken from ditchfill [1019], which displayed a series of fine knife cuts along the border of the right orbit and nasal bones. These are clearly the result of skinning, the focus on the right side of the skull perhaps demonstrating the handedness of the craftsman involved. There are undoubtedly a large proportion of cat bones as well as dog bones in these collections, all of which are either partially or totally disarticulated. Redeposition and/or the actions of scavengers may again be the cause of the observed disarticulation, although it is tempting to suggest that the process of dismemberment was enhanced / accelerated by the initial removal of their skins.

Referring again to the 'types' of domesticated present, a notably large cattle horncore was discovered within levelling dump [1097]. While incomplete, this core is undoubtedly within the longhorn category devised by Armitage (1982), encompassing a length in excess of 360mm. This is perhaps more likely to represent the continued import of unimproved 'types' into the 19th century London meat markets, as notably, the major 19th century beef and dairy breeds in Southern England tended to be shorthorns (Rixson 2000, 216-7).

Phase 5

The bone collection for phase 5 is very largely taken from either grave fills or from layers between the graves – the cemetery soil. It can be supposed that these bones will have suffered a major degree of redeposition, although as mentioned above, this is not obviously visible from either the state of the bones or the degree of fragmentation. The major aspects of this collection tend to follow those previously described for Phase 4, though with minor differences, concerning the better representation of poultry and the probable absence of game. Rabbit, clearly present in the assemblage, was certainly domesticated by the Victoria period with notably large urban hutch-bred suppliers being common (as mentioned in Beeton 1869, 222). In addition, a number of the rabbit bones at this site were relatively large, perhaps indicative of domestic breeds. Finally, a particularly gross pathological case was found in the fill [625] of grave [622], where the left or right forepaw bones of a rabbit were totally fused at the 'wrist' joint. This is probably the result of soft tissue damage due to some sort of trauma, perhaps coinciding with an infection. This level of fusion would undoubtedly have taken some time, while the initial cause would undoubtedly have rendered the animal more susceptible to capture if in the wild. Clearly this animal was hutch-kept and/or reared.

The local keeping and/or skinning of small mammals is again suggested by the abundance of cat and dog bones, again heavily disarticulated, although no further cases of bones with skinning cuts were found. The absence of articulation, at least on a major scale, would also suggest that none of these small mammals are likely to represent the burial of a pet with its owner.

Phase 6

Just 4 bones were retrieved from the construction cut for the new chapel – St Gabriel's.

Conclusion and recommendations for further work

The site collection can essentially be divided into the pre-cemetery and cemetery phases, with the former providing a moderately sized and well dated assemblage. It is unlikely that the later assemblage was dumped within the use period of the cemetery, or at least not entirely, and it can be assumed that most of these bones derive from the underlying strata. This probably explains the very similar nature of the bone assemblages across this divide and may suggest how the non-food waste, the dogs and cats, have become so thoroughly widespread and disarticulated. However, it was also suggested that the state of these small collections could relate to some post-mortem use, with a proportion of these bones representing waste items from a local

furrier. The major domestic collections are probably not large enough to warrant any in-depth review of usage patterns, yet this may be entertained to a limited extent regarding the pre-cemetery collections. In addition, there is good evidence for stock improvements and it would certainly be worthwhile to attempt a brief analysis of size change comparing the stock from this site with those from large early and later post-medieval collections, as for example from Bermondsey Abbey and Tabard Square (Rielly in prep a and b). A similar study could involve the rabbits found at this site, with larger specimens noted from the cemetery levels. Such large rabbits have previously been recovered from the early to mid 19th century fills of a well at Stockwell Street in Greenwich (Rielly 2013, 281).

It is recommended that further work should be undertaken on the pre-cemetery collections, in terms of domestic usage and size (including rabbit), the latter aspect perhaps including the cemetery assemblage, here assuming a rather similar date of deposition. It would also be of interest to compare other local post-medieval evidence for furrier activity looking for concentrations of cat and dog bones and in particular for bones with the requisite cut marks.

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APPENDIX 6 - ASSESSMENT OF BUILDING MATERIAL

By Dr Kevin Hayward

INTRODUCTION AND AIMS

Six crates and two standard sized storage boxes of ceramic building material, stone and mortar were retained from the excavations at Elephant and Castle Leisure Centre, London Borough of Southwark NGR TQ 3184 7887

This moderate sized assemblage (518 examples 144.8 kg) was assessed in order to:

- Identify (under binocular microscope) the fabric and forms of the dumped Roman, medieval, early post-medieval ceramic building material recovered from the area
- Identify the fabric and form of whole bricks associated with the cemetery wall; early-mid 19th century crypts, 19th century tenement building, outbuilding and the 1874 St Gabriel's Church
- Identify the fabric of the worked and unworked stone objects, particularly those that relate to grave markers or headstones from the 18th and 19th century churchyard in order to determine what the material was made of and from where it was coming from.
- Compilation of a database (SMC11.mdb)
- Make recommendations for further study.

METHODOLOGY

A site visit was conducted during the course of the excavation in September 2012 providing some idea of the dates and types of bricks and mortar used in the construction of the brick vaults.

For the material retained from the excavations, the application of a 1kg masons hammer and sharp chisel to each example ensured that a small fresh fabric surface was exposed. The fabric was examined at x20 magnification using a long arm stereomicroscope or hand lens (Gowland x10). Matches then made with the London fabric collection.

CERAMIC BUILDING MATERIAL

492 examples 113kg

ROMAN CERAMIC BUILDING MATERIAL (TILE AND BRICK) DAUB AND OPUS SIGNINUM 17 examples 1.9kg

Roman Ceramic Building Material 13 examples 1.7kg

Most of the very small quantity of brick, tile and imbrex recovered came from the late 18th to early 19th century post medieval ditch [1157] and subsequent infill [970]. This feature also contained an admixture of other early materials including medieval stone (see below), roofing and floor tile.

Fabrics

Sandy Fabric Group 2815 (AD50-160) 10 examples 0.8kg

Fine compact 2452 (AD55-160) *Fine sandy 2459a* (AD50-160) *Coarse Quartz sandy 3004* (AD50-160)

As expected the most common fabric group for London, the mid first to late second century red sandy group dominates the assemblage.

Radlett iron oxide group 3023 (AD50-120) 1 example 0.2kg

A solitary tile fragment of this Hertfordshire fabric was recovered from the main 18th century ditch fill [970]

Hampshire Grog Fabric 3054 (AD70-140) 2 examples 0.7kg

A large brick of this busy grog tempered fabric manufactured in Hampshire during the latter half of the first to the early second century came from [26].

Form

Because of the broken up nature of much of this small assemblage it is only possible to identify fragments of flanged tegulae, brick and curved imbrex. One large border tessara was identified, made out of the coarse sandy London fabric 3004 came from the area of the main ditch [879]. Tessarae and tile had previously been identified from the nearby London College of Printing (AOC 2001).

Daub 3 examples 0.1kg

It is not clear whether the small quantity of daub from a pond fill [144] and cemetery soil [651] relates to timber framed wattle and daub structures from the Roman or medieval period.

Opus signinum 1 example 0.1kg

Pink Roman concrete or opus signinum was identified from the 19th century ditch fill [1000] in an area where most of the Roman ceramic building material was found.

MEDIEVAL 34 examples 2.3kg

It is likely that much of this abraded ceramic building material assemblage (nearly all of it roofing material) originally came from demolition debris associated with the nearby St Mary Newington Church. The fact that all of it has been disturbed is shown by its presence in grave fills [263] [361] [400] [414] [717] [754] [949] levelling layers [824] [850], construction fill for the crypt [970] and ditch fill [1002] [1101] [1174].

Roofing Tile 33 examples 2kg

Peg tile fabrics 2271 (1180-1450)

2271nr2272 (1135-1220)

2586 (1180-1800)

2587 (1240-1450)

3205 (1180-1800)

Examples of broken up thin, abraded medieval peg tile characterised by coarse moulding sand and occasional splash glaze form a background component to the dominant later post medieval group. Most of it is the fine, thin sandy fabric 2271 (AD 1180-1450) with a reduced core and the iron oxide rich 2587, although one example of much earlier coarser glazed 12th century tile 2271nr2272 (AD 1135-1220) from [754] suggests derivation from an earlier building. Three examples of the creamy yellow Wealden fabric 3205 (AD 1180-1800) [1101] [1121] one with splash glaze [970] from the backfill of the construction cut associated with the brick vaults would be expected given the closer accessibility of these Kentish clays to Southwark relative to the city.

Floor Tile Fabrics

1 example 26g Calcareous Flemish Floor Tile fabric 1678 (AD 1300-1550)

A solitary 14th to 16th century yellow glazed 30mm thick floor tile import from the Low countries was recovered from a Victorian ditch fill [1002] may have been used to pave St Mary Newington Church.

POST-MEDIEVAL 307 examples 43.2 kg

Included here are the dumped earlier post medieval bricks, roofing (peg and pan tile), flooring (tiles) and wall tile materials. Some may have belonged to early post-medieval structures in the vicinity e.g. the documented early 17th century almshouses or the medieval/early post medieval St Mary Newington Church. However, given the long period of production associated with some of the fabrics such as the sandy peg tile 2276 (AD 1480-1900), pan tile (1630-1850) and the unglazed Flemish Floor Tile (1600-1850), some at least must be associated with the rebuilding of the late 18th century St Mary Church or even be derived from the crypt materials.

Brick 21 examples 9.3 kg

Late medieval early post medieval brick 2 examples 0.7kg

Fabric 3030 (AD 1400-1660) dark brown earthy sandy fabric 1 examples 0.2kg

A fragment of this material was recovered along with some red Tudor brick from a late post medieval grave fill [393].

Fabric 3031 Kiln - Estuary Brick Similar to fabric 3031 but not medieval (AD 1400-1700) 1 example 0.5 kg.

A shallow (51mm) thickly glazed poorly made pale cream brick fabric from an early 19th century levelling layer [1097] is somewhat akin to the late medieval 3031 brick fabric. In all probability this is an early post medieval estuarine kiln brick of a type seen throughout Southwark e.g. Bedale Street (Hayward 2013a) and Stoney Street (Hayward 2013b). This brick may relate to the post medieval kiln material including a sagger from (MLO4111) possibly associated with Delftware production.

Early Post Medieval Reds 15 examples 7kg

3033 (1450-1800)

3046 (1450-1800)

3039 (1450-1800)

3065 (1450-1800)

Examples of different early post medieval red bricks (AD 1450-1700) including fabrics 3033 (compact sandy); 3046 (loose sandy); 3039 (silt inclusions); 3065 (burnt flint inclusions) were found throughout the site. None however were reused in the late 18th century wall and early-mid 19th century crypt wall instead many are associated with the mid-19th century ditch fill [1000] [1002] [1053] [1097] along with an early kiln brick; late medieval floor tile; Roman brick; medieval Caen and Reigate stone ashlar and glazed Flemish floor tile. Some of these Tudor bricks are exceptionally shallow (38-45mm) and wide (120mm) from [1053] and [1097] suggesting possible derivation from a late 15th or 16th century building. This may represent consignments of dumped building material from a variety of sources including the documented 1859 demolition of the 1618 red brick almshouses belonging to the Fishmongers Company or brick, stone and floor tile belonging to the original St Marys Newington Church.

Dutch Paving Brick 2 examples 1.1kg

Fabric 3036 (AD 1600-1800)

Narrow, small (160x 690x 32mm) green-grey Dutch paving bricks, placed vertically were ideally suited for use in 17th to early 19th century garden pathways as well as delineating

garden borders. This would of course have included delineating individual graves. Two examples were identified including one from a late post medieval levelling layer [1010]

Red Paving Brick 2 example 0.5kg

Fabric 3047 (AD 1690-1900)

Post medieval red paving bricks fragment came from a late post-medieval grave fill [361] and ditch fill [1038].

Roofing Tile 234 examples 19.5kg

Large quantities of (largely) broken up post medieval roofing tile are found throughout the sequence numerically by far the most common type of building material recovered.

Peg tile 201 examples 13.8 kg

Sandy London fabrics 2276 (1480-1900)

2271 (1180-1800)

Iron oxide fabric 2586 (1800-1800)

As was the case elsewhere in London as a whole the very common sandy peg roofing tile fabric 2276 (AD 1480-1900), dominates. All of these peg tiles have two small (8-10mm) circular nail holes punched at one end, to which nails were used to attach the tile to the roof.

Pan tile 33 examples 5.7 kg

Sandy fabrics 2279 (1630-1850)

2271 (1630-1800)

2586 (1630-1800)

The introduction of thick (17mm) curved (or pan) tile for roofing from the Low Countries in London only began after the first quarter of the 17th century. The greatest quantities from the Elephant and Castle site are those recovered from the 19th century ditch fills [988] [1000] [1010].

Floor Tile 30 examples 13.7 kg

Glazed Flemish silty floor tiles fabric 2850; 3080; 1977 (1450-1600) 7 examples 4 kg

Large, early post medieval black glazed Flemish floor tiles (AD 1450-1600) were recovered from the mid-18th [1157] and mid-19th century ditch fill [1053] and levelling layer [860]. A complete example measuring 200mm x 200mm x 29mm also from the ditch fill [1097] was associated with very thin Tudor bricks (AD 1450-1600). They may have belonged to the same late 15th to early 16th century structure.

Unglazed Flemish silty floor tiles fabrics 2850; 3080; 1977 (AD 1600-1850) 23 examples 9.7 kg

Low country imports of large unglazed silty floor tiles, which were manufactured only after the start of the 17th century, are far more common. Once again these were found concentrated in the main 19th century ditch fill.

Tin-Glazed Wall Tile 22 examples 0.7 kg

The import on a large scale of thin (7mm) pale cream tin-glazed Delftware wall tiles from the Low Countries only really began after AD 1700 (Betts & Weinstein 2010). Numerous fragmentary examples of blue and lilac manganese patterned and plain grey tile were present here, with a particular concentration of manganese tiles from grave fills and crypt fills [1199] [1209] and [1238]

LATE 18th CENTURY – VICTORIAN BRICK STRUCTURES

Brick 106 examples 60.8 kg

Large quantities of whole brick were recovered from the structures relating to the late 18th century cemetery wall; 1830s Crypt; 19th century tenement building, outhouse and the AD 1874 St Gabriel Church. These are listed below (Figure 1).

All have a form, size, fabric and mortar type entirely in keeping with the aforementioned structures representative of late 18th century to mid-20th century construction.

Context	Structure	Fabric	Form	Size	Spot date	Spot date with mortar
8	OUTHOUSE FOOTINGS	3032	Frogged post great fire brick wide version	1	1850-1900	No mortar
9	E-W ALIGNED STUB WALL BELONGING TO LATE 18TH/EARLY 19TH CENTURY CHURCH	3032 3101	Narrow frogged post great fire brick t3v	1	1780-1850	1800-1900
11	MAIN CRYPT STRUCTURE	3035	Wide frogged estuarine brick t3	1	1850-1940	1850-1950
12	BLOCKING OF CRYPT 1	3032	Frogged thick wide post great fire brick as [8]	1	1850-1900	No mortar
23	19 TH CENTURY TENEMENT BUILDING	3033nr3034	Frogged post great fire wide brick	1	1850-1900	No mortar
32	NE-SW ALIGNED WALL	3035	F D W Frogged Estuarine Brick	1	1850-1940	No mortar
35	MID-LATE 19 TH CENTURY WALL	3035	F D W Frogged Estuarine Brick	1	1850-1940	No mortar
42	MID 19 TH -MID 29 TH CENTURY WALL	3035	Frogged Estuarine Brick	1	1850-1940	No mortar
98	INTERNAL WALL OF PASTORS COLLEGE MID 19 TH - MID 20 TH CENTURY WALL	3035; 3101	Wide frogged Estuarine Brick T4 Roman cement	2	1850-1940	1850-1950+
108	EXTERNAL WALL OF PASTORS COLLEGE	3032; 3101	Wide post great fire brick Reused T4 Roman mortar	1	1700-1900	1850-1950
116	BRICK SURFACE	3032nr3035	Stamped IS Yellow transitional frogged brick sharp arises	2	1850-1900	No mortar
340	MAIN FOOTINGS OF 1874 ST GABRIELS CHURCH	3035	Yellow Frogged Estuarine Brick no mortar	1	1850-1940	No mortar
876	COLLAPSED WALL	3032	Narrow post great fire brick	1	1780-1850	
938	COLLAPSED WALL	2850	Unglazed Flemish floor tile	1	1630-1850	No mortar
961	COLLAPSED SECTION OF WALL	3032	Narrow frogged post great fire brick	2	1780-1850	No mortar

Figure 1 Listing of the Brick Structures from SMC11 from where whole brick and mortar were retained

Post Great Fire Brick 96 examples 45.2 kg 3032; 3034; (1664-1900) & 3034mr3033; 3032nr 3035 (1780-1900)

Three quarters of the brick recovered from the excavation consist of the clinker rich, purple, brown and red bricks assigned as post great fire bricks, produced from the 1660s until 1900 in London.

The earliest bricks are narrow (95-102mm) and thick (62-65mm) both frogged and unfrogged, conforming to the sizes required of by the brick regulation tax, introduced only after AD 1780 until 1850. This brick comes from residual [9] and collapsed wall [876] [938] and [961] sections belonging to the cemetery wall. These poorly made narrow bricks also have a frog which was only introduced after 1750. All the evidence from the brick form and fabric from these three contexts fit in with the documented completed rebuild of St Mary Church and Churchyard between 1792/3. Brick recovered from the robbing of the wall [1137] merely confirms the use of these narrow late 18th to early 19th century bricks. Other loose examples of this brick size come from [850] which also relates to the robbing of the wall. They are generally associated with mortar T3 a hard fine lime shelly mortar with flecks of clinker.

By contrast the purple post great fire bricks associated with the later builds related to the AD 1830s builds and later blocking [12] of the crypt; the 19th century tenement building [23] outhouse footings [8]; and external wall to the Pastors College [108] are constructed from wider (110mm) deeper frogged post great fire brick with much sharper arises suggest machine manufacture. Many of the bricks are described as yellow and are in fact a hybrid of post great fire purple and yellow Estuarine brick fabrics - 3032nr3035 (AD 1780-1900) rather than the pure yellow frogged bricks encountered in many other later 19th century structures (see below). Bricks of this size and form usually conform to an AD 1850-1900 date, slightly later than the documented AD 1834 construction crypts. However as their architect Mr Christopher Edmonds already had a proven track record in church construction he may already have had access to the best decorative brick, techniques and pioneering mortars from this period (see below). Small plinth and curved post great fire bricks recorded from the mid-19th century ditch [988] coated with a very thick protective render (T5 mortar) would have come from these early vaults which only interred bodies over a twenty year period between AD 1834 and 1854.

Yellow London 10 examples 15.7kg

Fabric 3035 (AD 1780-1940)

Examples of yellow frogged bricks, manufactured in large quantities out of North Kent estuarine clay to meet demands for housing, service and industrial construction in Victorian London have been identified from a number of different variants of mid-late 19th century construction types (see Figure 1). These include the AD 1834 brick crypt [11] NE-SW aligned wall [32] and associated structures [35] [42] internal wall to Pastors College [98] brick surface [116] and the main footings to the AD 1874 construction of St Gabriel [340]. These bricks are all of a broadly similar size (230mm x 105mm x 65mm) and shape but it is possible to distinguish separate builds on the basis of mortar type and brick stamp and dimension. Bricks stamped *F D W* of unknown place of manufacture and date are restricted to mid-late 19th century walls [32] and [35]. Roman sandy mortar type 4 is restricted to Pastors college interior

[98] and exterior construction [108]. Type 5 mortar is associated with the brick from crypt [11]. Examples plinth bricks in this fabric come from [1000] and [1010] and may relate to disused brick vaults.

MORTAR, PLASTER & CONCRETE

A summary of mortar types and concrete as well as their periods of use from the excavations at SMC11 are given below (Figure 2).

Mortar/Concrete Type	Description	Use at SMC11
<i>T1 Fine brown smeared mortar</i>	Fine brown smeared mortar	Seen on some reused medieval peg tile [970]
<i>T2 White hard Lime rich tuffaceous mortar</i>	<i>White hard Lime rich tuffaceous mortars</i> sometimes gravelly	Rare found on post medieval peg tile [938] glazed early post medieval floor tile [1053]
<i>T3 Light cream nodular mortar</i>	Fine hard type light-cream nodular concretionary (lime) shelly mortar some charcoal clinker	Associated with Cemetery wall bricks [1780-1850] [9] [876] [938] [961] also [850] [871] [754]
<i>T4 Roman cement</i>	Loose brown sandy Roman cement – homogeneous consistency	Restricted to late 19 th purple well-made post great fire bricks and yellow Estuarine bricks associated with interior and exterior construction of Pastors College [98] [108]
<i>T5 hard thick brown coarse gravelly render</i>	Thickly coated (10mm) hard thick brown coarse gravel mortar. Loose mortar often curved	On plinth, curved and standard post great fire bricks and yellow Estuarine bricks. Used in the 1834-1854 25 brick crypts associated with Christopher Edmonds [11] other loose moulded examples from [988] [158] [242] [263] [325] [849]

Figure 2 list of mortar types identified from evaluation and excavation at SMC11

STONE 26 examples 31.7kg

The small group of worked stone fragments and rubble was dominated by funerary stelae, one of which [1160] had an inscription; their geological character, source and use are summarised below

Kentish ragstone/Hassock stone type 3105/3106 *hard dark grey calcareous sandstone (Kent Ragstone)*; – *coarse grained glauconitic sandstone (Hassock stone)* - Hythe Beds. Lower Cretaceous (Lower Greensand) Maidstone area, North Downs, comprising 3 examples

2.2kg. Rubble made from these materials was recovered from post medieval deposits from [976] [1010]. A long irregular slender Kentish ragstone hone from an early 19th century levelling layer [1010] is typical in its form and material to a Roman sharpening stone.

Reigate stone 3107– *Fine low density lime green glauconitic limestone*. Lower Cretaceous (Upper Greensand) Reigate- Mertsham, comprising 1 example 3.4kg part of an ashlar block from the same early-mid 19th century ditch fill [1053] as the Caen stone ashlar. Both materials are usually associated with medieval ecclesiastical construction materials and this may relate to demolition debris from the pre 18th century St Mary Newington Church.

York stone type 3108 *Fine banded green micaceous sandstone* Elland Flags, Upper Carboniferous (Namurian) South Yorkshire 3 examples 1.8kg The most likely function of the thin 30mm slabs of York stone from 19th century cemetery soil [651] and levelling layers [850] [1007] are as grave markers However, given their widespread use as paving this alternative option needs to be considered too.

Portland Whitbed 3110PM *Fine white-grey oolitic limestone* Upper Jurassic (Portlandian) Isle of Portland, Dorset, with 1 example of 0.9kg. One thin (30mm) slab from an early 19th century levelling layer [1010] is of a thickness typical of an 18th-19th century tombstone.

Purbeck marble type 3112R, *a dark grey freshwater shelly limestone*, from the Purbeckian Lower Cretaceous (Isle of Purbeck) Dorset, with 1 example weighing 8kg. Part of a very thick [72mm) slab of weathered and bleached Purbeck marble from a late 18th to early 19th century deposit [921] which may have had a long history. Purbeck marble slabs are associated with Roman funerary monuments and grave markers as well as medieval grave markers and are not a rock type associated with post medieval tombstones or embellishment. Given the proximity of Roman Stane Street and the widespread use of Purbeck marble as a funerary monument including its use in roadside cemeteries in Southwark (Hayward in prep.a; b; d) a Roman origin must be considered. Medieval tapering sub-rectangular grave slabs made from Purbeck marble are common place too and as an alternative it is possible that this material could have come from demolition debris from the churchyard of St Mary Newington Church.

Carrara marble 3114PM – *Fine white crystalline metacarbonate* – Tuscany Italy 2 examples 1.2kg Fresh, thin (30mm) slabs from a grave cut fill [284] and an early 19th century levelling layer [1010] are of a thickness that would conform to fragments of grave markers. Carrara marble along with Purbeck Limestone, York stone and Portland Whitbed were and continue to be important grave marker material types in the later post medieval period.

North Wales slate – type 3115PM – *Fine dark grey fissile slate* – Lower Palaeozoic – North Wales, with 7 examples 0.4kg Roofing slate fragments from 19th century layers [731] [1000] [1097] and [1158]. There is also a thicker machine sawn paving block from a ditch fill [1019] which is of 19th century date too.

Chalk type 3116 – *Fine powdery white micritic limestone* – Upper Chalk (Upper Cretaceous) Thames Valley 1 example 1.3kg. Rubble material from a late 18th to early 19th century levelling layer [978] possibly once belonging to construction walling debris from the demolished pre 18th century St Mary Newington Church.

Caen stone type 3119 *Fine yellow to orange-yellow limestone Yellow Packstone (Dunham 1962) Calcaire de Caen, Bathonian, Middle Jurassic, Departement Calvados Normandy.* 1 example 1.2kg part of an ashlar block from the same early-mid 19th century ditch fill [1053] as the Reigate stone ashlar. Both materials are usually associated with medieval ecclesiastical construction materials and this may relate to demolition debris from the pre 18th century St Mary Newington Church.

Gabbro type 3120 – *Very coarse dark grey crystalline basic igneous rock* – Numerous sources e.g. Scotland or Lake District 1 example 2.2kg from an early-mid 19th century ditch fill [1053] with a mixture of medieval, early and later post medieval stone and floor tile. Given the size and ovoid shape of the piece it is very likely to be a cobblestone possibly from a nearby post medieval pathway or road surface.

Purbeck limestone type 3126 *dark shelly oyster fragments set in a fine dark micritic limestone matrix* Upper Jurassic (Purbeckian) Isle of Purbeck e.g. Winspit Quarry/St Aldheim's Head. 3 examples 6.8kg. These are associated with 50mm thick grave markers from an early-mid 19th century levelling layers [978] [1010] [1160], one of which [1160] forms the upper decorative part of a grave marker (double semi-circular design) with an inscription (below).

C E L

W

Summary

Eleven rock types were identified, most of which were quarried and worked only during the post-medieval period such as Portland Whitbed, Gabbro (cobble stone) and York stone. Most of the large thin blocks are almost certainly grave markers and these include materials such as Carrara marble which had a resurgence of interest during this period as a funerary or commemorative stone, whilst the main growth in the quarrying and working of Purbeck limestone came during the 18th century (Stanier 2000). Portland stone and York stone are common grave marker materials too.

Elsewhere the origin of green Reigate stone and yellow Caen stone ashlar requires consideration. Both came from the same early-mid 19th century ditch fill [1053] containing a mixture of Roman, medieval and early post medieval ceramic building material. As both of

these materials are associated with medieval ecclesiastical ashlar facing stone throughout London – the most probable explanation is that they once belonged to the exterior and interior facing of the demolished pre 18th century St Mary Newington Church.

It is possible that the bleached Purbeck marble slab from the late 18th to early 19th century levelling deposit [921] may be even earlier. Purbeck marble had a widespread use as a funerary monument material in the Roman period due mainly to its ability to take inscription. Examples have been recovered from roadside cemeteries in Southwark (Hayward in prep.a; b; d) and the site lies close to Stane Street. Medieval tapering sub-rectangular grave slabs made from Purbeck marble are however, also common place and it is alternatively possible that this material derived from demolition debris from the churchyard of St Mary Newington Church.

Finally part of a long (130mm) irregular hone from [1010] made from Kentish ragstone may also be Roman. This material has been used form rubstones and hone stones in Roman Southwark (Hayward in prep. a; c)

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
8	3032	Frogged post great fire brick wide version	1	1664	1900	1750	1900	1850-1900	No mortar
9	3032 3101	Narrow frogged post great fire brick t3v	1	1664	1900	1750	1900	1780-1850	1800-1900
11	3035	Wide frogged estuarine brick t3	1	1780	1940	1780	1940	1850-1940	1850-1950
12	3032	Frogged thick wide post great fire brick as [8]	1	1664	1900	1750	1900	1850-1900	No mortar
23	3033nr3034	Frogged post great fire wide brick	1	1664	1900	1750	1900	1850-1900	No mortar
26	3054; 2586; 2271; 3063	Unglazed Flemish floor tile; late medieval early post medieval peg tile and pan tile; Hampshire Grog Brick Roman	4	70	1800	1180	1800	1630-1800+	No mortar
32	3035	F D W Frogged Estuarine Brick	1	1780	1940	1850	1940	1850-1940	No mortar

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
35	3035	F D W Frogged Estuarine Brick	1	1780	1940	1850	1940	1850-1940	No mortar
39	3046; 2279	Pan Tile and Red unfrogged brick	3	1450	1850	1630	1850	1630-1850	No mortar
40	3039; 2276	Early post medieval brick and post medieval peg tile	2	1450	1900	1480	1900	1600-1800	No mortar
42	3035	Frogged Estuarine Brick	1	1780	1940	1850	1940	1850-1940	No mortar
58	2276	Post medieval peg tile	2	1480	1900	1480	1900	1600-1900	No mortar
76	3032; 2276; 3063	Post great fire brick; post medieval peg tile; Splash glazed Flemish floor tile	3	1450	1900	1664	1900	1664-1800	No mortar
96	2587	Medieval peg tile abraded	1	1240	1450	1240	1450	1400-1700+	No mortar
98	3035; 3101	Wide frogged Estuarine Brick T4 Roman cement	2	1780	1940	1780	1940	1850-1940	1850-1950+
100	2276	Post medieval peg tile fine moulded sand	2	1480	1900	1480	1900	1700-1900	No mortar
101	2276; 3032	Post medieval peg tile and post great fire brick fragments	4	1480	1900	1664	1900	1700-1900	No mortar
108	3032; 3101	Wide post great fire brick Reused T4 Roman mortar	1	1664	1900	1664	1900	1700-1900	1850-1950
116	3032nr3035	Stamped IS Yellow transitional frogged brick sharp arises	2	1780	1900	1780	1900	1850-1900	No mortar
120	3032; 2276	Post medieval peg tile and post great fire brick	6	1480	1900	1664	1900	1700-1900	No mortar
141	2271; 2276	Post medieval peg tiles	2	1180	1900	1480	1900	1600-1900	No mortar
142	2271	Late medieval early post medieval abraded peg tile	1	1180	1800	1180	1800	1400-1800	No mortar

Archaeological Excavation

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
143	2276	Early post medieval peg tile	1	1480	1900	1480	1900	1480-1800	No mortar
144	2271; 2587; 3102	Daub; medieval to early post medieval peg tile	4	1500bc	1800	1180	1800	1240-1600+	No mortar
154	2271	Early post medieval peg tile	1	1180	1800	1180	1800	1400-1700	No mortar
158	2276; 3032; Tin-Glaze Delftware; 2279; 3101	Peg tile and pan tile, Delftware Tin-Glaze; post great fire T3 hard mortar	9	1480	1900	1664	1900	1664-1900	1850-1900
177	2276	Peg tile fine moulding sand	1	1480	1900	1480	1900	1600-1900	No mortar
192	2271; 2276; 2279; 3032; 1977	Pan Tile; Peg Tile post medieval; Floor Tile unglazed and post great fire brick	13	1180	1900	1664	1900	1700-1900	No mortar
193	2279	Pan Tile	1	1630	1850	1630	1850	1630-1850	No mortar
204	3032; 2276	Post Great Fire Brick and post medieval peg tile	2	1480	1900	1664	1900	1700-1900	No mortar
242	2271; 2276; 3032; 2850; 3101	Post medieval peg tile and post great fire brick Medieval peg tile glazed; Hard dark brown mortar	5	1189	1900	1664	1900	1700-1900	1830-1900
249	2587; 2279	Medieval peg tile and post medieval pan tile	3	1240	1850	1630	1850	1630-1850	No mortar
258	2586	Medieval early post medieval peg tile	2	1180	1800	1180	1800	1400-1800	No mortar
262	2276	Post medieval peg tile	2	1480	1900	1480	1900	1500-1900	No mortar
263	3032; 3101; 2271; 2276	Post Great Fire Brick; late medieval to early post medieval peg tile Curved mortar mould of a type typical of mausolea coating	4	1180	1900	1664	1900	1700-1900	1830-1950
267	2276; 2587; 2271; 2586; 2459a;	Large group of peg tiles; Roman imbrex and unglazed Flemish	31	1180	1900	1480	1900	1600-1900+	1800-1900

Archaeological Excavation

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
	3063; Tin glaze Delftware tile	Floor Tile; T1 and T3 mortar reuse							
280	2276; 3032	Post medieval peg tile fine mould and post great fire brick fragment	7	1480	1900	1664	1900	1700-1900	No mortar
284	3032; 3032R; 2850; 3114PM	Carrara marble funerary slab; narrow frogged and unfrogged post great fire bricks and unglazed Flemish floor tile	6	1450	1900	1750	1900	1775-1900	No mortar
286	2276	Post medieval peg tile	1	1480	1900	1480	1900	1600-1900	No mortar
295	2271; 2276	Post medieval peg tile	7	1180	1900	1480	1900	1600-1900	No mortar
307	2452; 2276; 3032	Roman Tile; Post Great Fire Brick; T3 mortar post medieval peg tile	8	55	1900	1664	1900	1700-1900	No mortar
320	2276; 3032	Post Great Fire Brick and post medieval peg tile	4	1480	1900	1664	1900	1700-1900	No mortar
325	3032; 3035; 3101; 2276	Yellow Brick Estuarine; mausolea coating mortar; post great fire brick; post medieval peg tile	5	1480	1940	1780	1940	1800-1940	1830-1950
340	3035	Yellow Frogged Estuarine Brick no mortar	1	1780	1940	1850	1940	1850-1940	No mortar
361	3047; 3032; 3046 chaff; 3046; 3032R; 3205; 2276; 3063; 2271; 2452; 3101	Red paving brick; post great fire bricks and 17 th century post medieval brick; yellow Wealden peg tile; post medieval peg tile; Roman tile; T3 mortar	23	55	1900	1690	1900	1700-1900	1800-1900
366	2271; 2276; 2586; 3032; 3101	Post medieval peg tile; post great fire brick T3 mortar	4	1180	1900	1664	1900	1700-1900	1800-1900

Archaeological Excavation

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
374	2279; 2276; 2271; 2850; 2586	Pan tile; post medieval peg tile and unglazed Floor Tile	10	1180	1900	1480	1900	1600-1900	No mortar
389	2586; 3032; 2276	Post Great Fire brick; post medieval peg tile	8	1180	1900	1664	1900	1700-1900	No mortar
393	2276; 3030; 3046	Post medieval peg tile late medieval and early post medieval brick							
400	2587; 2276	Residual abraded medieval and post medieval peg tile	2	1240	1900	1480	1900	1600-1900	No mortar
404	2271; 2276	Glazed medieval peg tile and post medieval peg tile	6	1180	1900	1480	1900	1600-1900	No mortar
414	2276; 2279; 3032	Post Great Fire Brick; Pan and Peg tile	8	1480	1900	1664	1900	1800-1900	No mortar
467	2279	Pan Tile	1	1630	1850	1630	1850	1630-1850	No mortar
471	2276; 2586; 2271; Tinglaze wall tile; hard	Peg tile; Tin-Glaze Wall Tile; reused hard concrete mould	9	1180	1900	1480	1900	1600-1900	1830-1950
493	2279; 3101; 3032	Moulded concrete; pan tile	2	1664	1900	1664	1900	1700-1900	1830-1950
574	2276; 2279; 2850	Post medieval peg tile; pan tile; Unglazed floor tile	5	1480	1900	1480	1900	1630-1850	No mortar
586	2586; 2271; 3032; 2459a; 2276	Roman tile; post medieval peg tile; post great fire brick	9	50	1900	1664	1900	1700-1900	No mortar
591	2271	Early post medieval peg tile mms	1	1180	1800	1180	1800	1400-1800	No mortar
606	2276	Post medieval peg tile	3	1480	1900	1480	1900	1600-1900	No mortar
642	2276; 3032; 3032R	Post medieval peg tile and frogged post great fire brick	6	1480	1900	1664	1900	1780-1900	No mortar

Archaeological Excavation

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
651	3101; 3102; 3108; 2586; 2276; 2271; 3032; Tin-Glaze wall tile	Daub; York stone possible funerary or paving; post medieval peg tile; post great fire brick narrow unfrogged T3 mortar	26	1500bc	1900	1664	1900	1700-1900	1800-1900
717	2587; 3063; 2271; 3032; 3032R; 2276	Pan tile; post great fire brick, medieval and post medieval peg tile and Flemish unglazed floor tile	21	1180	1900	1664	1900	1750-1900	1800-1900
730	Delftware Tin Glaze	Delftware Tin Glaze	1	1700	1800	1700	1800	1700-1800+	No mortar
731	3115PM	North Wales Slate post medieval roofing	1	1050	1900	1050	1900	1700-1900	No mortar
754	2271nr2272; 3032	Glazed medieval peg tile and narrow post great fire unfrogged brick	2	1135	1900	1664	1900	1770-1900	No mortar
766	2452	Roman Tile	1	55	160	55	160	55-160	No mortar
779	2271	Peg tile med or post med	1	1180	1800	1180	1800	1180-1800	No mortar
795	2276; 3032; 3101	Post medieval peg tile and post great fire brick; T3 mortar	2	1480	1900	1664	1900	1700-1900	1800-1900
824	2271; 2276	Post medieval peg tile	2	1180	1900	1480	1900	1600-1900	No mortar
849	3032; 3101	Wide well made post great fire brick hard coated mortar	2	1664	1900	1664	1900	1800-1900	1830-1950
850	3032; 2271; 3108; 3101	Medieval peg tile abraded York stone paver or funerary; frogged post great fire brick narrow hard mortar;	3	1180	1900	1664	1900	1780-1850	1800-1900
857	Tin Glaze Delftware	Tin Glaze Delftware Wall Tile	1	1700	1800	1700	1800	1700-1800	No mortar
859	2276; 3101	Peg Tile Post Medieval; Tufa mortar	2	1480	1900	1480	1900	1600-1900	No mortar
860	2850; 3063;	Purbeck limestone	4	1060	1950	1060	1950	1600-1950	No mortar

Archaeological Excavation

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
	3126	tomb; glazed and unglazed floor tile							
876	3032; 3101	Narrow post great fire brick; Hard gravelly mortar	2	1664	1900	1664	1900	1770-1900	1800-1900
879	2586; 3004	Roman Tessara; pan tile	2	50	1800	1630	1800	1630-1800+	No mortar
910	2276; 3032; 3101	Post medieval peg tile and well made unfrogged post great fire brick; T3 mortar	4	1480	1900	1664	1900	1800-1900	1800-1900
911	2276	Post medieval peg tile	1	1480	1900	1480	1900	1600-1900	No mortar
921	2586; 3112R or 3112M; Tin Glazed wall tile; 1977	Unglazed Flemish floor tile Tin Glazed wall tile, Purbeck marble funerary Roman or medieval; pan tile	5	50	1850	1630	1850	1700-1850	No mortar
938	3063	Unglazed Floor Tile	1	1600	1850	1600	1850	1700-1850+	No mortar
944	Manganese Tin Glazed Wall Tile	Manganese Tin Glazed Wall Tile	1	1700	1800	1700	1800	1700-1800+	No mortar
949	3032; 2271; 2276; 2586	Thin medieval peg tile; post medieval peg tile and fragment of post great fire brick	7	1180	1900	1664	1900	1700-1900	No mortar
961	3032	Narrow frogged post great fire brick	2	1664	1900	1664	1900	1770-1850	No mortar
970	2452; 2459a; 2586; 2276; 3205; 2850	Roman tile and tegula; peg tile post medieval yellow Wealden peg tile Pan tile unglazed floor tile	12	50	1900	1480	1900	1600-1800	No mortar
975	3032	Deep frogged wide post great fire brick	4	1664	1900	1664	1900	1850-1900	No mortar
976	3105; 3032; 2271	Post medieval peg tile; frogged wide post great fire brick Kentish ragstone rubble	3	50	1900	1664	1900	1850-1900	No mortar

Archaeological Excavation

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
978	3116; 3126; 2271; 2276; Tin Glaze wall tile	Chalk, Tombstone fragment, post medieval peg tile Tin Glaze wall tile	5	50	1900	1480	1900	1700-1800+	No mortar
979	Tin Glaze wall tile	Tin Glaze wall tile	1	1700	1800	1700	1800	1700-1800	No mortar
980	2279; 2586	Post medieval peg tile and pan tile	2	1180	1850	1630	1850	1630-1850	No mortar
988	2586; 3032R; 2850;; Tin glaze plain grey tile	Pan tile, Unglazed Flemish floor tile, Plinth post great fire brick and Tin Glaze plain grey tile	5	1600	1900	1664	1900	1800-1900	No mortar
1000	2276; 3039; 3115PM; 3104; 1977; 2279; 3035 ;2271; 3101	Yellow Estuarine Plinth Brick; North Wales Slate; Early post medieval brick and peg tile post medieval, opus signinum, Unglazed Flemish floor tile; Pan tile	11	1060	1940	1780	1940	1800-1900	100-400 (Residual opus signinum)
1002	3046; 3065; 3054; 2279; 1697; 3101	Hampshire Grog Roman fabric brick; Red plinth brick, Calcareous Flemish Floor Tile and Pan Tile T1 brown mortar mortar	5	70	1850	1630	1850	1630-1800	1500-1800
1007	3108	York stone grave marker	1	1600	1950	1600	1950	1600-1800	No mortar
1010	3036; 3126; 3035; 3110PM; 3114PM; 2850; 2271; 3105; 3101	Thin pan tile; Dutch paving brick unglazed Flemish floor tile; Yellow Plinth Brick, Purbeck limestone; Portland Whit Bed; Carrara Marble Grave markers and Kent Rag Whetstone; T3 mortar	10	50	1940	1780	1940	1800-1940	1800-1900
1019	2279; Tin Glaze Wall Tile; 3115PM	Tin Glaze Wall Tile; North Wales paver pan tile	3	1060	1950	1060	1950	1700-1900	No mortar

Archaeological Excavation

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
1020	2276; 2279	Pan tile and post medieval peg tile	3	1480	1900	1480	1900	1700-1850+	No mortar
1029	Tin Glaze Wall tile plain grey	Tin Glaze Wall tile plain grey	1	1700	1800	1700	1800	1700-1800	No mortar
1038	2459a; 3047; 2587; 3101	Post medieval peg tile and brick paver Reused Roman tile T3 mortar	3	50	1900	1690	1900	1700-1900	1800-1900
1050	2276; 3032; 3101	Post medieval peg tile and narrow post great fire brick T3 mortar	4	1480	1900	1664	1900	1770-1900	1800-1900
1053	3119; 3107; 3120; 3063; 3033; 1977; 3046; 2276	Caen and Reigate stone ashlar fragments; gabbro cobble; unglazed and glazed Flemish floor tile and Tudor brick; early post medieval paving brick and peg tile	10	1060	1900	1480	1900	1600-1750	No mortar
1069	Tin Glaze Wall tile dec blue	Tin Glaze Wall tile dec blue	1	1700	1800	1700	1800	1700-1800	No mortar
1097	White kiln brick; 2276; 2279; 3063; 2271; 3032R; 3115PM; 3046; TinGlazeBlue; 3101	Kiln brick white, peg and pan tile, unglazed floor tile, narrow frogged post great fire brick and red post medieval brick; North Wales slate and Tin Glazed Wall Tile; T3 Mortar and Hard T6 Portland	12	1060	1900	1664	1900	1770-1850	1830-1950
1101	2276; 3205; 3106	Haddock rubble, post medieval peg tile and local Wealden	3	50	1900	1480	1900	1600-1900	No mortar
1107	2586; 2276; 2850; 2279	Pan Tile, Unglazed Flemish floor tile and post medieval peg tile	6	1180	1900	1480	1900	1700-1900	No mortar
1121	2271; 2276; 3205	Medieval and post medieval peg tile	4	1180	1900	1480	1900	1600-1900	No mortar
1137	3032R; 3101	Narrow post great fire	4	1664	1900	1664	1900	1770-1850	1800-1900

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
		brick T3 mortar							
1152	2279	Pan Tile	1	1630	1850	1630	1850	1630-1850	No mortar
1157	3023; 2271; 2276; 1977	Glazed Flemish floor tile; Radlett Imbrex and post medieval peg tile	16	50	1900	1480	1900	1600-1800	No mortar
1158	3115PM	North Wales Roofing Slate	1	1060	1950	1060	1950	1700-1900	No mortar
1160	3126	Inscribed gravestone Purbeck limestone	1	1200	1950	1200	1950	1600-1900	No mortar
1174	2279; 3032R; 3101; 2587	Plinth brick with hard render post great fire, pan tile and abraded peg tile	3	1240	1900	1664	1900	1800-1900	1830-1950
1199	TinGlaze Manganese wall tile	TinGlaze Manganese wall tile	1	1700	1800	1700	1800	1700-1800+	No mortar
1209	TinGlaze Manganese wall tile; 2586; 2276	TinGlaze Manganese wall tile; post medieval peg tile	8	1180	1900	1480	1900	1700-1800+	No mortar
1238	TinGlaze Manganese wall tile	TinGlaze Manganese wall tile	1	1700	1800	1700	1800	1700-1800	No mortar

PHASE SUMMARY

Roman and Medieval Dumped Material

Small assemblages of dumped fragmentary Roman ceramic building material (2kg) and medieval roofing and flooring tile (2.5kg) supplemented by broken up blocks of probable Roman (8kg) and medieval (8kg) worked stone form a surprisingly high background component in the deposits from the Elephant and Castle site.

Roman tile and brick, daub and opus signinum recovered mainly from the Late 18th – 19th century ditch fill [1157] [970] is dominated by the early sandy fabric group (AD 50-160) which is entirely within keeping with London and Southwark. Other than a singular border tessera no other high status ceramic building material was recorded. Although aligned along Stane Street, just 1-1.5km south of London Bridge this small assemblage may simply represent

evidence for manuring, confirming data from other sites in this area that there was no Roman settlement. Far more revealing, perhaps, is part of a highly weathered and bleached thick piece of worked Purbeck marble from a 19th century levelling layer [921]. This stone is a common Roman tombstone roadside material for Southwark (Hayward in prep. a; b; c) including examples along Great Dover Street (Hayward in prep. a). It is possible given the proximity of tombstone statuary at Skipton Street and this sites closeness to Stane Street that this could be a part of a discarded Roman roadside tomb. A sharpening stone from a 19th century levelling layer [1010] is also probably Roman in date and may relate to the sharpening of agricultural tools.

Worn medieval glazed roof tile was typical of the period 1200-1500. This peg tile is found scattered throughout the site with some concentration between [141] to [144] associated with the 18th century pond linked with Parsonage House. Larger pieces of Caen stone and Reigate stone ashlar, from the infill of the main ditch [1053] are materials associated with medieval ecclesiastical and secular construction and may have derived from the dismantling of St Mary Newington Church during the 18th century. Similarly the only example of medieval plain glazed floor tile was recovered from the same ditch [1002] and may be flooring material from St Mary Newington Church.

Early post medieval floor tile and brick

Intermixed with the Roman and medieval material from the main Victorian ditch fill are a small group of dumped Tudor red brick and kiln brick along with early post medieval glazed Flemish silty floor tile (1450-1600) from [1000] [1002] [1053] [1097] [1157]. Some of the bricks are very shallow which would indicate that they derived from a high status building a 16th to early 17th century date. Although this material could have derived from St Mary Newington Church it is conceivable that they may have come from documented 1618 red brick almshouses belonging to the Fishmongers Company, demolished in AD 1859.

Cemetery Wall and tombstones

Remnants of the cemetery wall [9] [876] [938] and [961] belonging to the rebuilt AD 1792/3 church were constructed using purple narrow frogged and unfrogged post great fire bricks - quite different from the later, larger machine made red and yellow bricks associated with the crypt and subsequent structural builds. Their width (95-102mm) and thickness (62-65mm) conform to the sizes required by the brick regulation tax, between AD 1780 and 1850.

Some of the tombstones notably the 50mm thick grave markers made from Purbeck limestone recovered from mid-19th century levelling layers [978], [1010], [1160] may have come from this earlier cemetery. Purbeck limestone seems to have been used quite extensively in London during the 18th and 19th century as a tombstone material (Stanier 2000). Also from these levelling layers are fragments of grave markers made from other post-

medieval materials Carrara marble, Portland Whit Bed and York stone. These may have also have come from the churchyard of AD 1792/3 or one pre-dating the church rebuild.

Brick Crypts

The bricks and mortar recovered from remnants of the 25 vaults designed by Christopher Edmonds from AD 1834 e.g. [11] had their own distinctive form and fabric. The bricks are wider (110mm) than the cemetery wall and consist of both frogged post great fire bricks and yellow estuarine bricks. They contain examples of small plinth bricks coated with a thick (10mm) dark brown render (T5 mortar) As their architect Mr Christopher Edmonds already had a proven track record in church construction he may already have had access to the best decorative brick, techniques and pioneering mortars from this period

St Gabriels Church and other late 19th century structures

Bricks associated with the AD 1874 foundation of St Gabriels Church [340] and other buildings [32] [35] including the Pastors college [98] [108] included fresh consignments of 19th to mid-20th century yellow estuarine bricks. Some of those used in walls [32] ; [35] were stamped *F D W* (unknown place and date of manufacture), those from [98] and [108] were pointed with a late 19th to early 20th century Roman mortar.

RECOMMENDATIONS / POTENTIAL

This moderately sized group of building materials recovered from both the late 18th and 19th churchyard structures including the AD 1834-1854 brick crypt as well as dumped Roman, medieval and early post-medieval stone, brick and tile contain few individual items of intrinsic interest. The value of the assemblage lies with the accurate dating of the Late Georgian and Victorian structures, on the basis of brick size, fabric and mortar type.

Nevertheless, the background Roman, medieval and early post-medieval stone, tile and brick deposited in the mid-19th century ditch does provide glimpses of the types of structures that were present in this area prior to their demolition by the mid-late 19th century. Chief amongst these are demolished medieval building material associated with St Mary Newington Church and possibly the documented red brick almshouse built in the early 17th century and demolished by AD 1859. It cannot be ascertained, however whether or not a large tombstone fragment of decayed Purbeck marble was Roman or medieval.

The main focus for any future publication lies with the cemetery material, namely the AD 1834-1854 brick crypts constructed from high quality decorative brick, coated with a thick cement render. It would be interesting to compare the use of high quality brick and hard pioneering render with other brick vaults from the early-mid 19th century for example 1840s Kensal Green. As their architect Mr Christopher Edmonds already had a proven track record in church construction he may by now have had access to the best decorative brick, techniques and pioneering mortars from this period. Some comment too need to be made on the epitaphs and tomb materials from the numerous 18th and 19th century grave markers.

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APPENDIX 7 - GLASS ASSESSMENT

By Chris Jarrett

Introduction

A small sized assemblage of glass was recovered from the site (nine boxes). The glass dates to the post-medieval period. Most of the fragments show no or little evidence of abrasion and were probably deposited fairly rapidly after breakage. Some of the glass fragments have natural weathering deposits resulting from burial conditions. The glass assemblage is in a very fragmentary state except for seven intact items and a small number of nearly so vessels, otherwise most of the forms could be readily identified. Also present is a small quantity of glass production waste. The glass was quantified by the number of fragments and was recovered from 89 contexts and individual deposits produced small (fewer than 30 fragments) groups, except for two contexts with medium (31-100 fragments) groups.

All of the glass (444 fragments, of which 21 fragments were unstratified) was entered in to a digital database, by type, colour and form. The assemblage is discussed by function and the vessel shapes, *etc.* and its distribution.

The forms

All of the identifiable forms are dated to the post-medieval period and are mainly discussed according to their functions and by the number of fragments. Minimum number of vessels did not appear to be an appropriate method of quantification for this fragmentary assemblage. A breakdown of the basic shapes is as follows:

Bottle, generic: four fragment

Bottle, beer: two fragments

Bottle: English wine; 168 fragments

Bottle: English wine; cylindrical: seventeen fragments

Bottle: English wine, early cylindrical type; 61 fragments

Bottle: English wine, onion-type; one fragment

Bottle: French wine; one fragment

Bottle: flat section; one fragment

Bottle: Hamilton-type; one fragment

Bottle: milk; two fragments

Bottle: octagonal section; two fragments

Bottle: oval section; flat; one fragment

Bottle: spirit, kidney-shaped section; two fragments

Bottle: square section; three fragments

Bottle or jar: one fragment

Bottle or phial: eight fragments

Bowl, wide: four fragments.

Cloche?: two fragments

Glass making waste: 40 fragments

Indeterminate: two fragments

Jar: squat, oval section: 1 fragment

Phial: 3 fragments

Phial: cylindrical; three fragments

Rummer: one fragment

Vessel glass: 46 fragments

Window pane: 51 fragments

Wine glass: 6 fragments

The forms by function

Alcohol consumption forms:

Rummer

A single free-blown rummer in clear soda glass is recorded with a wide foot attached to a stem with a rounded wide merese and the centre of the stem has a wide disc, sandwiched by two smaller discs. The item is dated to the 19th century and was recovered from context [1019].

Wine glasses

Five wine glasses are recorded in clear soda glass unless otherwise stated. From context [1209] came a conical bowl base attached to a stem with a heavy knob and footring which was dated to the early 18th century. In clear lead glass a stem with a rounded knob with a merese is noted which was broadly dated to the 18th-19th century and which is unstratified. Two other wine glass fragments were dated to the 19th century and both came from context [1019] and consisted mostly of footrings. The

fifth wine glass was found in context [1199] and consists of a hollow rolled under foot, and it is broadly dated to the post-medieval period and could represent another type of drinking form, such as a 16th-17th century beaker. Additionally there is the rim of another indeterminate drinking form in soda glass and it is broadly dated to the post-medieval period and was recovered from context [263].

Alcohol storage

Bottles

Beer bottles

Two unstratified beer bottles are recorded. The first is intact and made in a two part mould in amber coloured soda glass and has a grooved ring finish rim, cigar shaped neck, rounded shoulder, slightly concave base (which is embossed 'K 4 2337 C.T.G.') with a flattish surround. The second bottle was made in a dark olive green glass and was made in a three-part mould. It survives from the cylindrical neck to base, has a rounded shoulder with a horizontal seam and a tapering body and a conical kicked base. The vessel could be classified as a 'malt beer' type bottle. Both items date to after AD 1830.

Bottle, flat, oval section

An intact, two part moulded bottle of this type is present in amber glass and has an external screw thread finished rim above a short round collar, in turn attached to a short neck, rounded shoulder, and embossed on the underside of the base is '3/ /AGW'. There are also two unstratified moulded bottles with a 'kidney-shaped' cross-section. One has a complete profile and is made in amber glass and has a straight-sided brandy-type rim finish and it is embossed on the base '0228/C.T.G.' The other example is intact and made in clear glass and has an external screw thread and it is embossed on the base EMBOSSSED 'C B C/8116x'. All three of these bottles are unstratified and date from the end of the 19th century onwards.

Bottle: English wine (generic fragments)

There are numerous wine bottle fragments which could not be precisely assigned to a type. A number of datable string rim finishes could be identified (Dumbrell 1993, 38-9). Two examples are recorded with c. AD 1660 finishes which were found in context [577] and made in black glass, besides the example from context [1019], which was made in olive green glass. It is more than likely that these rims belonged to globe and shaft type wine bottles. Another two examples were made in pale and dark olive

green glass and have rim finishes dated to c.AD 1680-90 which were recovered from contexts [508] and [988]. A single example has a rim finish type dated c. AD 1750-70 and which was found in deposit [471]. Late 18th-century rim types were recovered from contexts [204] and [944], and from context [1174] came two examples dated to the late 18th and early 19th century. In dark olive green glass there are five wine bottle fragments, probably of cylindrical types, with rims dated to AD 1780-90 and these were recovered from contexts [192] with two examples, while single occurrences were found in contexts [267], [290], [970] and [1097], besides an unstratified item. Another unstratified rim is dated to c.AD 1790 by its finish. Another five wine bottle rims are dated to c. AD 1800-10 and these were found in contexts [1053], [1097] and [1101] and there were two examples from deposit [1199]. A number of basal fragments could also be broadly dated to the late 17th-mid 18th century by their profiles, possibly from mallet-type wine bottles noted in contexts [220] [1199] and [1209]. Other basal fragments are broadly dated to the late 18th and early 19th century and may have derived from either mallet or the later cylinder types and these were noted in contexts [949], [988] and [1097].

There were numerous fragments of wine bottles broadly dated from the mid 17th-19th centuries and these were recovered from a large number of contexts (see Table 1). Of particular note was a fragment with an oval seal consisting of a blob of glass and impressed on it the name 'Ja. PETERS./150/BOROUGH' (SF267) which refers to an 18th or 19th century wine merchant. This item was recovered from context [267].

English cylindrical wine bottles (generic fragments)

A number of glass fragments could be classified to general shape and dated to the mid 18th century onwards and these were recovered from contexts [158], [199], [366], [393], [471], [597], [615], [731], [824], [988], [1092], [1097] and [1221].

English cylindrical wine bottles, early type

This form is identified as being free-blown and characterised largely by having a splayed or waisted base and date from the mid 18th-19th century. The wine bottles are made in olive and dark olive green glass. The distinctive bases were recovered from contexts [267], [284], [471], [508], [651], [681], [717], [857], [860], [978], [979], [1131], [1152], [1174] and [1221] in the form of single items, two examples were each found in contexts [988], [1053] and [1107], three items in deposit [1010], four examples each came from contexts [1199] and [1209], while five bottles of this type were noted in deposit [1019]. Three rims were assigned to this type with string finishes dated to the mid 18th- early 19th century (context [1019]), c. AD 1780-90 (context [1020]) and c. AD 1800-10 (context [1019]).

English onion-type wine bottle

A basal sherd of this free-blown type of wine bottle, dated to the late 17th-early 18th century, was made in natural olive green glass and found in context [267].

French wine bottle

A free-blown wine bottle made in pale olive green glass has a rim with a French-type of a string finish dated c. AD 1850 and it was found in context [1010].

Drink storage

Hamilton bottle

A single moulded bottle of this type is recorded and made in olive green glass and consists of a flat/rounded base embossed 'S.' and '[LON]DON'. This late form of a Hamilton bottle dates to after c. AD 1865 and was found in context [988].

Food and liquid storage

There are three bottles that fall into this category.

Milk bottles

Two unstratified intact, 20th-century milk bottles are recorded and both are made in clear soda glass and have applied 'grooved ring' finishes and conical necks, a straight-sided wall and convex base. One example has additionally a straight-sided collared rim and it is embossed on the wall with a crown above 'REGD TRADE MARK' and 'CONTENTS 1 PT' on the other side. The other example has additionally a 'prioiff' rim finish and a deep convex collar and embossed on the wall at a diagonal is the logo 'EXPRESS' and on the other side 'THIS BOTTLE COSTS/4d/PLEASE RINSE AND RETURN/CONTENTS 1 PT'. Around the base is embossed 'RJ ET'.

Bottle or jar

A single basal fragment of a free-blown bottle or jar, made in clear soda glass, survives with a conical kick with a cylindrical wall. The item is broadly dated to the late 18th-19th century and was found in context [988].

Horticultural

Possible cloche

The free-blown hollow, rounded foot ring of a possible cloche with an undulating wall is present in natural pale olive green glass and it is in a noticeably weathered condition. It was recovered from context [1019].

Hygiene

Jar, squat oval section

An unstratified Brylcream jar is recorded in clear soda glass which was made in a two part mould. The item has a rim with an external wide screw-thread finish above a rounded collar, a very short neck and a rounded shoulder and the body of the vessel is oval in section. Embossed on the wall sides are two oval depressions (creating ridges) with one bearing the logo 'BRYLCREAM/REGD' and the underside of the base is embossed 'REGD DSCM/ 6755' and '9/91/858194' separated by a segmented diamond. The decayed metal lid is still in place. The item dates to the 20th century.

Liquid storage

Bottles, generic fragments

Part of a free-blown bottle is broadly dated to the post-medieval period and was found in context [783]. The item survives as a rim with an applied, rounded short strip, a short neck and a rounded shoulder and was made in aquamarine high lime low alkali (HLLA) glass. In natural glass is a weathered free-blown base of a bottle with a conical kick dated broadly to the 18th-19th century and this was recovered from context [1199]. Two bottle fragments are dated to the 19th century and consists of a neck in blue-green glass (context [192]) and in natural pale green glass the shoulder of an item with a moulded seam mark that may have been derived from a flat or oval section bottle (context [1107]).

Flat bottle

A panelled fragment from a moulded flat bottle, made in pale blue green HLLA glass and dated to after c. AD 1830 was recovered from context [361].

Flat, octagonal sectioned bottles

There are four examples of this type of bottle. The unstratified, convex base of an optically blown example was made in olive green glass and it is dated to the 19th

century. The other three items were all mould made and date to after c. 1830 and consist of the base of a green tinged HLLA example (context [284]), a panelled wall fragment in dark olive green glass (context [487]) and a base in olive green glass (context [19053]).

Octagonal section bottles

There are two mould made bottles with octagonal sections and both made in natural glass. The first example occurs in olive green glass and survives as a panelled wall fragment (context [682]), while the second example survives as a base in olive green glass (context [864]). The two items date to after c.AD 1830.

Square sectioned bottle

A natural green glass vessel comprises an optically blown 19th-century square sectioned bottle. It survives from the deep cylindrical neck downwards. The item has affinities with sauce bottle shapes and was recovered from context [1209].

Miscellaneous forms

Wide bowls

Four wide bowl rims are present and all are made in natural glass and have an external hollow construction. Two examples with a pale green tint have a rolled oval cavity (contexts [404] and [979]), while a similar example from context [921] was made in olive green glass. The fourth example has a deep collared rim finish and was made in pale green tinted glass and was found in context [988]. All of these items were dated to the post-medieval period and it is possible that they represent garden cloches.

Pharmaceutical

Bottles or phials

Eight fragmentary, free-blown vessels were assigned to the category of bottles or phials. Six of these vessels are present with preparation rim finishes and five of these are of a wide type and are in clear glass (context [471] as two examples), aquamarine coloured glass (single examples found in contexts [783] and [1107]) and pale blue glass (context [615]). These items were broadly dated to the 18th-19th century. A narrow 'wide preparation' type rimmed vessel in clear glass was found in context

[682] and was dated to the 19th century. Two bases are recorded in blue green glass (with a kick: context [1019]) and aquamarine coloured glass [192].

Phials, cylindrical

This form is present with three, free-blown examples all recovered from context [1019] and two rims are present with a preparation finish in clear glass dated to the 19th century and a kicked base is present in blue green glass and dated to the 18th and 19th century.

Vessel glass

Items of glass that could not be assigned to a specific form have been placed in the vessel glass category and this material occurs in a range of glass types and colours and what contexts they occur in are shown in Table 1. A small number of items are worthy of comment upon. The corner of a possible case bottle made in natural dark olive green glass was found in context [1131]. Possible fragments of a carboy occur in context [1053] and were made in olive green natural glass, while basal sherds from another large vessel and made in pale olive green glass were noted in context [1019].

Window glass

The window glass was in a fragmentary state and found in numerous contexts (see Table 1 for their occurrence). This material was made in either soda or HLLH glass and was present in either clear glass or with tints of pale blue, pale blue-grey or pale green. Where the manufacturing technique could be determined, crown glass was noted in contexts [199], [267], [427], [471], [724], [857] and [1019], while cylinder made material was recovered from contexts [204], [267], [267], [328], [374], [597], [944] and [970].

Glass waste

There is a notable quantity of glass production waste recovered from the site and this occurs as single colours, such as blue, clear and pale green, or as blast furnace slag in varied combinations of marbled colours, such as pale blue, dark olive green and blue and white. There is an absence of other glass production waste items, such as moils and crucibles, indicating that this material does not reflect glass production on site. The material appears to be refuse dumped on the site and corresponds with other industrial waste found, such as the ceramic redware white lead making vessels

and tin-glazed ware wasters : see Jarrett, Appendix 3) which was tipped on to the study area. The distribution of the glass waste is shown in Table 1.

Distribution

The distribution of the glass is shown in Table 1. Each context containing glass is flagged up, then the trench, the phase, number of fragments, the forms and a spot date is shown. The glass assemblage was recovered from Phases 3-6 and a summary of the material for each phase is presented.

Context	Trench	Phase	No. of frags.	Forms	Spot date
76	Mitigation Trench	6	1	Vessel	Post-medieval
101	Mitigation Trench	5	2	Glass waste, window pane	Post-medieval
154	Mitigation Trench	5	5	English wine bottle, vessel	Post-medieval
158	Mitigation Trench	5	6	English wine bottle/cylindrical, window pane	Mid 18th - early 19th century
192	Mitigation Trench	5	25	Bottle, bottle or phial, English wine bottle, glass waste, vessel	19th century
199	Mitigation Trench	5	11	Glass waste, English wine bottle/cylindrical, window pane, vessel	Mid 18th - early 19th century
204	Mitigation Trench	5	3	English wine bottle, window pane	Late 18th century
220	Mitigation Trench	5	3	English wine bottle	18th/19th century
245	Mitigation Trench	5	3	Glass waste, vessel	Post-medieval
258	Mitigation Trench	5	2	Window pane	Post-medieval
262	Mitigation Trench	5	4	English wine bottle, vessel	Post-medieval
263	Mitigation Trench	5	12	Vessel, window pane	Post-medieval
267	Mitigation Trench	5	12	English wine bottle/cylindrical; early/onion, vessel, window pane	1780-1800
280	Mitigation Trench	5	2	Vessel	Post-medieval
284	Mitigation Trench	5	3	Bottle: flat; octagonal, English wine bottle/cylindrical; early	1830 onwards
295	Mitigation Trench	5	1	English wine bottle	Post-medieval
307	Mitigation Trench	5	3	English wine bottle	Post-medieval
320	Mitigation Trench	5	2	English wine bottle, vessel	Post-medieval
328	Mitigation Trench	5	4	English wine bottle, window pane	Post-medieval
361	Mitigation Trench	5	3	Bottle: flat, vessel	1830 onwards
366	Mitigation Trench	5	1	English wine bottle: cylindrical	Mid 18th - early 19th century
374	Mitigation Trench	5	6	English wine bottle,	18th century
393	Mitigation Trench	5	1	Window pane	Mid 18th - early 19th century
400	Mitigation Trench	5	1	English wine bottle: cylindrical	Post-medieval

Context	Trench	Phase	No. of frags.	Forms	Spot date
404	Mitigation Trench	5	1	English wine bottle	Post-medieval
414	VOID	VOID	1	Bowl: wide	Post-medieval
427	Mitigation Trench	5	1	Vessel, window pane	Post-medieval
461	Mitigation Trench	5	1	Glass waste	Post-medieval
467	Mitigation Trench	5	2	English wine bottle, vessel	Post-medieval
471	Mitigation Trench	5	45	Bottle or phial, English wine bottle/cylindrical/ Early, glass waste, vessel, window pane	Mid 18th - early 19th century
487	Mitigation Trench	5	2	Bottle: flat; octagonal, English wine bottle	1830 onwards
508	Mitigation Trench	5	3	English wine bottle/ cylindrical:	Mid 18th - early 19th century early
523	Mitigation Trench	5	2	Glass waste, vessel	Post-medieval
577	Mitigation Trench	5	4	English wine bottle, vessel	Mid 17th-19th century
597	Mitigation Trench	5	4	English wine bottle, English wine bottle: cylindrical, window pane	Mid 18th -19th century
615	Mitigation Trench	5	3	Bottle or phial, English wine bottle: cylindrical, vessel	Mid 18th -19th century
630	Mitigation Trench	5	1	English wine bottle	Post-medieval
651	Mitigation Trench	5	4	English wine bottle/cylindrical; early, glass waste	Mid 18th -early 19th century
681	Mitigation Trench	5	1	English wine bottle: cylindrical;	Mid 18th -early 19th century early
682	Mitigation Trench	5	5	Bottle or phial, bottle: octagonal, glass waste	1830 onwards
717	Mitigation Trench	5	5	English wine bottle/ cylindrical	Mid 18th -early 19th century early
724	Mitigation Trench	5	4	English wine bottle, window pane	Mid 18th -early 19th century
730	Mitigation Trench	5	1	English wine bottle	19th century
731	Mitigation Trench	4	4	English wine bottle/ cylindrical early,	19th century
742	Mitigation Trench	5	1	English wine bottle	Post-medieval
779	Mitigation Trench	5	4	English wine bottle, indeterminate, window pane	Mid 17th-19th century
783	Mitigation Trench	5	5	Bottle or phial, bottle English wine bottle, indeterminate	19th century
791	Mitigation Trench	5	1	Glass waste, vessel	Post-medieval
795	Mitigation Trench	5	3	English wine bottle, vessel	1830 onwards
824	Mitigation Trench	4	1	English wine bottle: cylindrical; early	1800-1810
841	Mitigation Trench	5	1	English wine bottle	Post-medieval
850	Mitigation Trench	4	1	English wine bottle	Post-medieval
857	Mitigation Trench	5	8	English wine bottle/cylindrical: early, glass waste, window pane	Mid 18th - early 19th century

Context	Trench	Phase	No. of frags.	Forms	Spot date
860	Mitigation Trench	4	2	English wine bottle/cylindrical; early	Mid 18th - early 19th century
861	Mitigation Trench	4	2	English wine bottle	Mid 18th - early 19th century
864	Mitigation Trench	5	1	Bottle: octagonal	1830 onwards
879	Mitigation Trench	4	1	English wine bottle	Post-medieval
916	VOID	VOID	1	English wine bottle	Post-medieval
921	Mitigation Trench	4	3	Bowl wide, English wine bottle	Post-medieval
944	Mitigation Trench	5	7	English wine bottle, vessel, window pane	Late 18th century
949	Mitigation Trench	5	1	English wine bottle	18th-early 19th century
968	Mitigation Trench	4	2	English wine bottle, glass waste	Post-medieval
970	Mitigation Trench	4	2	English wine bottle, window pane	1780-90
978	Mitigation Trench	4	4	English wine bottle/cylindrical; early	Late 18th - early 19th century
979	Mitigation Trench	4	4	Bowl wide, English wine bottle: cylindrical; early, vessel	Mid 18th - early 19th century
980	Mitigation Trench	5	2	English wine bottle	Post-medieval
988	Mitigation Trench	4	21	Bottle or jar	1865 onwards
1000	Mitigation Trench	4	1	Bottle: late Hamilton-type	Post-medieval
1002	Mitigation Trench	4	1	Bowl wide, English wine bottle/ cylindrical/early, window pane	Post-medieval
1010	Mitigation Trench	4	5	English wine bottle	Early 19th century
1019	Mitigation Trench	4	33	Bottle or phial, ?Cloche, English wine bottle/cylindrical; early, French wine bottle, phial, rummer, vessel, window pane, wine glass	Early 19th century
1020	Mitigation Trench	5	3	English wine bottle: cylindrical; early, vessel	Late 18th-early 19th century
1025	Mitigation Trench	5	1	Glass waste	Post-medieval
1051	VOID	VOID	1	Vessel	Post-medieval
1053	Mitigation Trench	4	11	Bottle: flat; octagonal, glass waste, English wine bottle/ English wine bottle: cylindrical; early, vessel	1830 onwards
1064	Mitigation Trench	5	1	English wine bottle	Post-medieval
1092	Mitigation Trench	5	1	English wine bottle: cylindrical,	Mid 18th - 19th century
1097	Mitigation Trench	4	6	English wine bottle/cylindrical, glass waste	Late 18th - early 19th century
1101	Mitigation Trench	3	2	English wine bottle, window pane	Early 19th century
1107	Mitigation Trench	5	19	English wine bottle/ cylindrical; early, glass waste, vessel	1830 onwards
1121	Mitigation Trench	3	1	Window pane	Post-medieval
1131	Mitigation Trench	5	6	English wine bottle: cylindrical; early, vessel	Mid 18th - early 19th century

Context	Trench	Phase	No. of frags.	Forms	Spot date
1152	Mitigation Trench	3	2	English wine bottle: cylindrical; early, glass waste	Mid 18th - early 19th century
1174	Mitigation Trench	4	3	English wine bottle/cylindrical; early	Mid 18th - early 19th century
1188	Mitigation Trench	3	1	English wine bottle	Late 17th - mid 18th century.
1198	Mitigation Trench	5	4	English wine bottle, window pane	Post-medieval
1199	Mitigation Trench	4	11	Bottle, English wine bottle/cylindrical; early, wine glass	Late 18th - early 19th century
1209	Mitigation Trench	3	19	Bottle –square, English wine bottle/cylindrical; early, vessel, wine glass	Early 19th century
1221	Mitigation Trench	3	3	English wine bottle/cylindrical/ early	Mid 18th - early 19th century

Table 1. SMC11: distribution of the glass

Phase 3

A total of 28 fragments of glass were recovered from this phase and found across six contexts: [1101],[1121],[1152],[1188], [1209] and [1221]. The earliest glass items to occur on its own was a fragment of thick walled English wine bottle, dated to the late 17th-mid 18th century and this was recovered from fill [1188] of grave [1185]. The presence of English early cylindrical wine bottles in the primary fill [1152] of the ditch and fill [1221] of the posthole [1222] dates these deposits to the mid 18th-19th century. A small group of glass recovered from the primary fill [1209] of ditch [1233] was dated to the early 19th century and included mostly English early cylindrical wine bottles, besides an early 18th-century wine glass and an optically blown square bottle and vessel rim. The secondary fill [1101] of ditch [1247] was dated to the early 19th century by the presence of a wine bottle rim with a string finish dated c.AD 1800-10. A fragment of blue glass waste was also noted in fill [1152] of the ditch.

Phase 4

For phase 4 a total of 118 fragments of glass were recorded which were recovered from twenty contexts: [731], [824], [850], [860], [861], [879], [921], [968], [970], [978], [979], [988], [1000], [1002], [1010], [1019], [1053], [1097], [1174] and [1199]. Many of the deposits containing glass from this phase were recovered from ditch fills: [1053] and [1019] that contained mostly English early cylindrical wine bottles. Fill [1053] was dated to after c. AD 1830 by the presence of a moulded flat bottle with an octagonal cross section. A more varied range of glass forms were noted in fill [1019] and included a possible cloche, phials, a rummer and two wine glasses. A later fill [988] of ditch [1233]/[1247] contained a flat base Hamilton bottle dating to after c.AD 1865.

Phase 5

This phase produced the largest quantity of glass totalling 273 fragments found across 59 contexts: [101], [154], [158], [192], [199], [204], [220], [245], [258], [262], [263], [267], [280], [284], [295], [307], [320], [328], [361], [366], [374], [393], [400], [404], [427], [461], [467], [471], [487], [508], [523], [577], [597], [615], [630], [651], [681], [682], [717], [724], [730], [742], [779], [783], [791], [795], [841], [857], [864], [944], [949], [980], [1020], [1025], [1064], [1092], [1107], [1131] and [1198]. Much of the glass was fragmentary in this phase and recovered from grave fills and cemetery soils. Such deposits mostly contained fragments of cylindrical wine bottles dating the deposits to the mid 18th and 19th century, besides additional glass production waste/blast furnace slag. Moulded bottles dated to after c.1830 were recovered from grave fills [284],[361], [487], [682], [795], [864] and[1107]. The wine bottle seal (SF 280) was the only item of note in this phase and was found in the dump/levelling layer [267].

Phase 6

A single fragment of glass is recorded for this phase and this consists of a fragment of vessel glass broadly dated to the post-medieval period and found in fill [76] of the construction cut [77] for the church.

Significance of the assemblage

The glass has little significance at a local level as the types and forms are those expected for the London region for the post-medieval period and reflect to a certain extent the increase in consumerism during the 19th century and the need for containers for mass produced products. There are a number of items that could possibly correspond to the activities represented by the pottery (see Appendix 4). A number of ceramic items, notably in the form of Pearl ware slip-decorated jugs with 'imperial' measured marks, reflect rubbish clearance from a nearby drinking establishment. In the glassware there is a notable quantity of glass wine bottles and a small quantity of alcohol consumption forms, such as a rummer and wine glasses. It is therefore possible that these glass items could have been derived from a nearby inn or tavern, although they could equally be derived from a domestic household. The wine bottle seal (SF280) for a vintner located on Borough High Street is of intrinsic interest. The pottery also produced a large quantity of horticultural forms, particularly as flower pots, although more specialised forms, found as seed pans are also recorded. In the glassware was recorded a cloche, while a number of wide bowls may also actually be this form. Therefore the glassware indicates that in the vicinity of the

study area horticultural practices were undertaken at a higher level of proficiency than the norm. The occurrence of the glass making waste on the site purely reflects the dumping of refuse from post-medieval Southwark glasshouses, which were mostly located to the north of the site and close to the Thames. However, the glass assemblage, like the pottery, largely represents material dumped on the site and it is important more for understanding activities associated with certain households and businesses in the immediate vicinity and relating to the suburb of the Elephant and Castle.

Potential of the assemblage

The potential of the glass is to date the features it occurs in. One vessel requires illustration: the wine bottle seal (SF280) which will add to the corpus of these items. The glass assemblage has some potential, despite being on the whole mundane and fragmentary, although it has some use for illuminating and informing on the activities of the households in the proximity of the site.

Recommendations for further work

A short publication report is required for the glass from this site. Further research is required on the wine bottle seal to determine the working period of the vintner who commissioned this item and so date the seal. Three items require illustrating to compliment the text.

References

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APPENDIX 8 - HISTORICAL BACKGROUND

By Guy Thompson

The medieval manor of Walworth and the church of St Mary Newington

Known to its Saxon inhabitants as 'Waleorde', or 'the farm of the Britons', the earliest credible reference to the manor of Walworth appeared in a mid-11th century document which recorded the confirmation by Edward the Confessor of a 10th century grant to the Prior and Convent of Christ Church Canterbury (Boast, 1993: 2; Malden, 1912: 74-77). By the eve of the Norman Conquest the manor was a fairly substantial holding, which contained 8 acres of meadow and sufficient arable land to support three plough teams and a fourth that ploughed the lord's demesne. In addition, the manor was one of the few estates in the vicinity to possess its own church.

It is not entirely clear whether the manorial church recorded in the Domesday Book was the same building, or even stood on the same site, as the medieval parish church of St Mary, Newington (Darlington, 1955: 91). The vill of Newington was a tithing of the manor of Walworth, first recorded in the early 13th century. It was during the latter period that the parish of St Mary appears to have emerged, the parochial boundaries corresponding with those of the ancient manor of Walworth (*ibid*: 81). The rectors of the church can be traced back to the same period, the earliest being a certain Roger de Sussex, who was the incumbent before AD 1212 (*ibid*: 91-94). The right of advowson to the living originally resided with the Priors of Christ Church, although this was transferred to the Crown by Thomas Cranmer in AD 1546 (*ibid*). The following year the king granted it to the Bishop of Worcester, in whose possession it remained, despite periodic challenges, until AD 1852, when it was transferred to the Bishop of London (Malden, 1912: 74-77).

The parish church stood on the west side of Newington Butts, adjoined to the south and west by a large field which comprised the glebe land of the rectory. Known as Church Field, it contained 8 acres of meadow prior to AD 1637, and may have corresponded with the plot of the same size recorded in the Domesday Book (Barlow, 1859: 30).² Historical maps and contemporary descriptions indicate that Church Field was low-lying and bisected by drainage ditches (known also as 'moats'). The 18th century topographer and antiquary William Maitland described the field as being "a Moorish [i.e. marshy] Ground, with a small Watercourse, denominated the River Tygris" (Maitland 1756, 1388). Maitland maintained that this somewhat grandly named stream formed part of 'Cnut's Trench', a waterway widely believed to have been dug by the Danish King Canute in 1016 to enable his fleet to bypass

² Henry Clark Barlow believed that the location of the church had not changed since the Norman Conquest based in part upon his identification of Church Field with the meadow itemised in the Domesday Book (Walford, 1878: 255-268)

the defended London Bridge in order to subdue the rebellious city (*ibid*: 35). During the course of his researches, Maitland claimed to have discovered the line of this 'canal' running from Rotherhithe in the east to Chelsea Reach in the west. The author claimed that course of the waterway was especially visible in the vicinity of Newington Butts and the Newington Turnpike (New Kent Road), where in AD 1729 labourers digging drainage ditches had discovered "a considerable number of large oaken Planks, and divers Piles, which from their position evidently appeared to have been part of the Northern Fence of this Canal" (*ibid*).

Little, if any trace of the 13th century church appears to have survived into the post-medieval period. The local historian and collector of antiquities Henry Syer Cuming suggests that there had been a 14th century church on the site, which he described as being "small and of slight pretensions" (Cuming 1872, 10). This building was described by the antiquary John Aubrey in his posthumously published *Natural History and Antiquities of Surrey* (AD 1719). Writing during the last quarter of the 17th century, Aubrey maintained that the oldest parts of the church then standing as having been built about 150 years previously (c. AD 1520), although he had little doubt that there had been "a Church of a Date far more ancient in this Place" (Aubrey 1719, 132). Aubrey described the church as being "very small, built of Brick and Boulder...a double Roof covered with Tile, and the Walls with a rough Cast" (*ibid*). The three-aisled building was 43' long, 54' wide and 22' high; it had a tower of 44' surmounted by a 'turret' which took the total height to 60'. The 19th century writer Henry Clark Barlow, who was raised in nearby Churchyard Row, described this tower as being of flint and stone, which he believed dated to the 14th century (Barlow 1859, 30).

The enlargement of the church and churchyard during the early 17th century

It is possible the church was modified during the early 16th century, although no evidence of this presumed phase of development other than John Aubrey's description has survived. Around the turn of the following century the north aisle of the church was added by Sir Hugh Brawne (Aubrey 1719, 132). Sir Hugh was a prosperous City merchant, a member of the Vintner's Company, an alderman and sometime mayor of the City of London, whose wealth also enabled him to acquire a number of estates in Worcestershire and Gloucestershire in the 1600s (Beaven 1908, 153-165; Elrington 1968, 81-89). The Brawne family retained the use of two pews in the north aisle of St Mary's until at least the mid-1630s (Cuming 1872, 13). Following Sir Hugh's death in 1614 a "fair Marble Monument of the Corinthian Order, adorned with Columns, Entablature, and the Statues of Sir Hugh...his two Wives, four Sons, and six Daughters all in a Posture of Devotion" was erected in his memory near the east end of the north aisle (Aubrey 1719, 137). Whilst the monument survived the rebuilding of 1720/1 (see below), it was subsequently partially broken up and its remains incorporated within the walls

of the 1793 church, the statue of Lady Brawne ending up under the floor beneath the Rector's pew, from where it was exhumed during repairs in 1812 (Cuming 1872, 11).

Although the parish retained its semi-rural setting throughout the 17th century and beyond, certain districts had become overcrowded and were blighted with poor housing as early as the 1630s (Malden 1912, 74). In January 1637 the King's Council ordered that steps be taken to relieve the condition of the inhabitants of "poor tenements in Southwark, Newington and Lambeth", and a significant sum of money was set aside for the purpose (Cal. S.P. Dom Charles I, Volume 10 1636-7, 347). The same year two small pieces of land were detached from Church Field in order to enlarge the churchyard of St Mary's, in consideration of which the churchwardens agreed to pay an annual rental of 13s 4d to the rector, who in turn undertook to pay it to the tenant of Church Field (Barlow 1859, 30).

The repair and rebuilding of the church during the late 17th and early 18th centuries

Following the return of Charles II and the restoration of the episcopacy in 1660, ecclesiastical authorities took steps to ensure that public worship conformed to the liturgy set out in the Book of Common Prayer of 1662. The restoration of Anglican forms of worship also found expression in the revival of religious festivals suppressed during the Commonwealth, as well as the establishment of new holidays commemorating the execution of Charles I and the return of Charles II. The reintroduction of a religious calendar marked by the familiar cycle of 'bonfires and bells' was also reflected in the physical fabric of churches. In December 1665 the parish vestry ordered the construction of a turret atop the tower (this feature was observed by Aubrey) in order to hang the 'Saint's Bell'; which in name alone was an unambiguous statement of the restored Anglican supremacy (Cuming 1872, 14). A church clock had been installed by 1686, whilst galleries had been installed within the nave by 1671 (*ibid*, 13-14). The earliest items amongst the church's collection of communion plate were donated during the 1670s (*ibid*, 18-19). A second small portion of Church Field was annexed to the churchyard in 1665 (Walford 1878, 255-268).

In 1704 the church was "repaired and beautified" at the expense of the parishioners (Aubrey 1719, 136). Modifications included the erection of a new altar-piece, the installation of new pews in the nave, the wainscoting of the walls of the nave to a height of 5 feet and the construction of new galleries (of wainscot) at the west end and south west side of the church (*ibid*). A doorway that provided access into the chancel for the rector and his servants was blocked up and the rector's pews in the chancel removed (Barlow 1859, 31). As was customary, the arms of Queen Anne were also installed inside the church (Cuming 1872, 23). The new interior did not remain intact for long however, for during a Sunday service in July 1715 "there happened a sudden Rupture in the Wall, which put the Congregation, then assembled into such a general Consternation that they all ran out, and many in making their

Escape, were bruised and trodden under Foot, and received great Hurt” (Seymour 1735, 810). Upon inspection of the damage it was discovered that despite expenditure of £850 on the recent repairs, “it was found so much decayed in the Pillars, Walls, and Beams, and in the Roof and Foundation...the same could not any longer be supported” (*ibid*). The ruined structure was pulled down in 1720 and a new church was built shortly thereafter, the cost of which exceeded £926 (*ibid*).

The new church opened its doors to worshippers on 26th March 1721. Designed by a somewhat obscure architect named Edward Oliver, the building was slightly larger than its predecessor, measuring 62’ in length and 58’ in width (Cuming 1872, 15). An engraving of this building was published in the 1756 edition of William Maitland’s *History and Survey of London* (Maitland 1756, facing 1387). Reproduced here as **Plate A**, this illustration depicts a modest structure that retained the old tower at its west end, which was surmounted by an open belfry/turret containing a single bell. The remainder of the bells were hung inside the tower, and an additional bell was cast for the new church by Richard Phelps at the Whitechapel Foundry in 1721 (Malden 1912, 74-77). The cupola of the turret was surmounted by a functional weather vane and there was a lozenge-shaped clock on the south side of the tower. The single-storey nave was flanked by aisles on its north and south sides, lit by plain semi-circular windows, whilst an apsidal chancel stood at the east end.

John Rocque’s map of London, Westminster and Southwark of 1746 depicted the church and its environs around a quarter of a century after it had been rebuilt (**Figure A**). The map showed the church enclosed by an irregular four-sided churchyard, the south-east side of which fronted Newington Butts. To the north of the churchyard stood Parsonage House, a weather-boarded timber-framed structure belonging to the rectory of Newington, which was encompassed on (at least) two sides by what was described as a moat. A manorial terrier of 1729 stated that to the west of Parsonage House there was another island, “bounded on the south and west sides by a neck of land called the Neckinger, and on the north with a Walk half-a-mile long from east to west and 7 yards wide” (Barlow 1859, 30). This plot contained a total of 1½ acres of land and was in the tenure of a certain James Scholes at the end of the 1720s.

Sandwiched between the Parsonage House and Newington Butts to the east was a ¾ acre plot which contained a tenement and an orchard in the occupation of Hannah Hawks in 1729 (*ibid*). The Parsonage House was accessed from the north-west corner of the churchyard via a tree-lined walk, which was flanked on either side by two parcels of garden ground, each containing ¼ acre. One was in the possession of a certain John Davis, whilst the other was occupied by a number of properties including the Barnyard and four small tenements. The latter included Greenland House (which adjoined the Barnyard on the south side), an inn called the Black Horse, next to which stood a house in the occupation of Mrs Davis and finally

the Sexton's House in the churchyard, which stood "over against the north door of Newington Church" (*ibid*). The Barnyard itself contained "a great barn, called the Parsonage Barn" with stable adjoining. The barn was of five bays, aligned approximately north-south alongside Newington Butts. These properties were all depicted on Rocque's map. To the south and west of the churchyard lay Church Field, which in 1729 was in the occupation of the widow Harwood. Following the detachment of portions in 1648 and 1718 to build a pathway and widen a road respectively, the field contained 7½ acres of pasture and meadow.

The enlargement of the Churchyard, 1756

The population of Newington continued to grow throughout the first half of the 18th century and by the mid-1730s there were at least 700 houses standing in the parish (Seymour, 1735: 811). Although the local economy continued to be dominated by market gardening, the improvement of the local road network from the middle of the century, heralded by the construction of the New Kent Road turnpike in 1751, brought increased traffic, and with it trade, to the Newington area.

Although the churchyard of St Mary's had been enlarged less than a century earlier, by the mid- 1750s it was apparent that space for new burials in the churchyard was running out. In response, the rector, the Reverend John Horsley, and the churchwardens of the parish proposed to extend the churchyard by means of annexing an acre of land on the north and west sides of the existing burial ground. The land earmarked for acquisition was part of the glebe, the development of which necessitated the consent of the Bishop of Worcester and an Act of Parliament. In 1756 an Act was duly passed that permitted the acquisition of the plot for public burials in consideration of an annual payment of £3 to the Rector and his successors (Public Act 29 Geo II cap.42, 1756). The Act authorised a levy of 6d in the £ for the execution of the Act, which was to be raised and administered by a Board of Trustees comprising the rector and the churchwardens. The Act defined the plot to be annexed as follows:

"a certain piece or Parcel of Ground...adjoining to the North and West Sides of the said Churchyard, and containing from East to West on the South Side thereof, Two hundred and fourteen feet of Assize, and from North to South on the West Side thereof, Three hundred and seventy feet of Assize, and from East to West on the North side, two hundred and seventy seven feet of Assize, and from North to South on the East side thereof, One hundred and thirty two feet of Assize" (*ibid*: 15).

The lease and development of the glebe, 1761-c.1790

The 1756 Act was effective from 25th March of that year. Two years later John Horsley was succeeded to the living of St Mary's by his son Samuel (1733-1806), a mathematician and

scientist who subsequently became a Fellow of the Royal Society, Dean of Westminster and Bishop of Rochester, St David's and St Asaph. In 1760 the younger Horsley obtained a Private Act of Parliament which permitted him to issue leases to developers willing to build houses "for the use of the inhabitants of the Parish" upon the remaining 7¾ acres of the parochial glebe land (Private Act 1 Geo III cap. 18 1760). The Act pertained not only to the 7 acre field to the south and west of the parish church, but also to the plot immediately to the north-east bounded by the churchyard, Newington Butts and the Parsonage House which contained the rectory barn and the public house (renamed the Queen's Head since 1729), all of which were "old and in bad condition" (*ibid*: 2). The 1760 Act empowered the rector "to demise or lease all or any Part or Parts of the said glebe lands unto any Person or Persons who shall be willing to build upon and improve the same, for any Term or Number of years, not exceeding 99 years" (*ibid*: 2-3). Upon the expiration of this term, the Rector of St Mary's was permitted to lease any properties standing on the former glebe for a further 40 years. The Act prohibited the sale or lease, either by Horsley or his successors, of the Parsonage House or the moated platform upon which it stood.

The 1760 Act became effective on 25th March 1761. Just over 15 months later a portion of the glebe was leased to a builder named Edward Cole (Private Act 10 Geo IV cap. 49 1829).³ On 14th July 1762 Cole undertook to lease a portion of the glebe for a term of 99 years from 25th March 1763 for an annual rent of £10, subject to a covenant by which he was obliged to build houses upon the land (*ibid*: 10). On 21st February 1765 two further leases were granted; one to a builder named William Meymott, the other to Joseph Barlow, a builder of Long Lane, Bermondsey (*ibid*).

Thanks to the efforts of his great-grandson, the literary scholar Henry Clark Barlow, the lives of Joseph Barlow, his son Joseph and grandson Henry are well-documented (Barlow 1859). The elder Joseph Barlow was born in Bermondsey c.1810, where he established a business as a builder (Hovenden 1880, 23). At "the ripe age of 55" Barlow migrated to Newington in order to take up the lease on a portion of Church Field, upon which he built two rows of houses: Church Row and Churchyard Row (Barlow 1859, 7; **Figure Horwood**). Both terraces were built upon a gravel bank, the former facing Newington Butts, the latter "retiring from public view, behind a range of lime trees...keeping the church in countenance" (*ibid*, 5).⁴ In Henry Clark Barlow's account of the life of his father Henry, the author described the appearance of the houses of Churchyard Row in the late 1850s as follows:

³ It is possible that this was the same individual as the Edward Cole, "late of the Parish of St Mary Newington in the County of Surry, Gentleman" whose death was announced in July 1792 (*London Gazette* no. 13439, 12/07/1792, 545). The executor of the latter's estate was the Reverend William Crawford, of Church Row

⁴ Barlow's evidence suggests that either Cole or Meymott was responsible for the development of Parsonage Walk in the 1760s; presumably one built Parsonage Row and the other built the properties on the west side of Newington Butts between St Mary's and the Parsonage House.

“The dwellings retain their primitive character – time has continually overlooked them. With their green outside shutters, their heavy dentil door-cases, the red-tiled roofs and attic windows gaping through, these tenements tell their own tale that they are not of this generation, but belong to a period of powder and pig-tails, when the mother church stood in the midst of fields and all around was still the country” (*ibid*).

Joseph Barlow senior retained one house in Churchyard Row for the use of himself and his family: no. 14, which stood at the southern end of the terrace, which his great-grandson described as being “larger than the others, more modern” (*ibid*). Following Joseph senior’s death at the age of 82 in 1792, his son, also Joseph (23/02/1737 – 09/02/1804), moved into the property with his wife Sarah (née Storey), with whom he had 11 children, all but three of whom died in early childhood (*ibid*, 7; Hovenden 1880, 24). Born at 1, Barlow’s Row, Long Lane, Bermondsey in March 1783, Henry Barlow (12/03/1783 – 12/01/1858) was the couple’s youngest surviving son. Following an early career at sea in the service of the fleet of the Honourable East India Company and a stint in the service of the Revenue at Gravesend, Henry and his wife Sophia (née Clark, also of Churchyard Row) moved into no. 11 Churchyard Row, where they resided for the remainder of their lives (TNA HO 107/1063/5/8/43, 31; TNA HO 107/1568/266, 43).

The repair and rebuilding of the church, 1791-c.1820

Despite the extensive rebuilding of St Mary’s Church in the early 1720s, by the turn of the final decade of the 18th century it was reported that parts of the building were in a ruinous condition. The principal causes of concern were the retained medieval tower and the north and south walls, both of which were less than 70 years old (Cuming, 1872: 16). The rector and churchwardens agreed to rebuild the church from scratch and demolition of the old building commenced on 19th June 1791 (Cuming 1872, 17). The architect, property developer and Newington resident Francis Hurlbatt (AD 1756-1834) was commissioned to design the building, which opened its doors to worshippers in 1793.⁵

Historical photographs and engravings show that Hurlbatt’s classical design was reminiscent of that of the nearby church of Holy Trinity, Clapham Common, a Grade II* listed building erected in the mid-1770s (English Heritage List no. 1080491). This resemblance may have been more than coincidental; Hurlbatt was responsible for the design of the single-storey Doric porch added to the west end of the latter church in 1812. Like Holy Trinity, St Mary’s

⁵ Francis Hurlbatt was also a local landholder, who held a number of properties that stood at the junction of Walworth Road and Newington Butts opposite the church at the end of the 18th century (Darlington 1955, 127-8). A monument to the memory of Francis Hurlbatt and his wife Betsey (1770-1837) was affixed to the north wall of the church, while an altar tomb containing the remains of several members of the Hurlbatt family stood on the south side of the building before its demolition in the 1870s (Hovenden 1880, 115-117). From the 1830s to the 1860s Francis’ son Charles Hampton Hurlbatt, a solicitor, lived a short distance from the church at 16 Canterbury Row with his wife Elizabeth and eight children (TNA HO 107/1063/1/2/36, 15; TNA RG 9/344/28, 4)

was constructed of stock brick with arched stone window surrounds, was two storeys in height and featured a low, probably stone-built, tower at its west end (**Plate B**). The latter was surmounted by a simple domed belfry/cupola that housed the bells, two of which were cast for the new church by Thomas Mears at the Whitechapel Foundry and installed in 1793 (Malden 1912, 74-77). A rumour reported by Henry Syer Cuming that two of the six existing bells had been sold in order to fund the construction of a steeple which was never built appears extremely improbable given the consistent classicism of Hurlbatt's design (Cuming, 1872: 17).

Hurlbatt's unashamedly classical design was deeply unfashionable by the time that the local historian Henry Syer Cuming published a history of St Mary's in 1872. Cuming, who evidently favoured the architecture of the Gothic Revival, described Hurlbatt's church as "unsightly", claiming that it was "ugly...in the beginning, and ugly it will continue to be until it ceased to be" (*ibid*). Although Cuming's hostility to the design of the building appears to have been coloured by his architectural prejudices, he was also critical of the costs necessary to maintain it. Cuming had a point when he claimed that it had cost "a mint of money" to maintain during the 80 years of its existence, and at least two major repair programmes (in 1810 and 1812) were launched within 20 years of its completion.

St Mary's church was not the only parochial building to be overhauled around the end of the 18th century; a few years after the church was rebuilt a number of alterations were also made to the Parsonage House, including the replacement of the earlier weather-boarding with stucco and the draining of the surrounding 'moats' (Malden 1912, 74-77).

The 1829 Act and the proposed enlargement of the churchyard

In 1812 the Reverend Arthur Cyril Onslow (1788-1869) was appointed to the living of St Mary, Newington.⁶ Onslow was quick to identify a flaw in the leasehold title to the glebe estate, which threatened to render the arrangements made between his predecessor Samuel Horsley and the leaseholders Cole, Meymott and Barlow and their tenants "void and ineffectual" (Private Act 10 Geo IV cap. 49, 1829). Having discovered a simple, but significant, clerical error made during the drafting of the 1760 Act, Onslow proposed to replace the void or voidable leases with new permanent leases, which would be made on new terms that reflected the increased value of the glebe estate. This necessitated an Act of Parliament, which was enacted in the face of opposition from members of the Barlow family and their tenants in 1829 (Barlow 1859, 19).

In addition to authorising the redrafting of the leases on the glebe estate, the new Act permitted Onslow to enter into a contract with the churchwardens for the annexation of a

⁶ Onslow came from a branch of the family of the Earls of Onslow of Shropshire and Clandon Park, Surrey

small portion of glebe land adjacent to the boundary of the churchyard for the purposes of enlarging the latter (Private Act 10 Geo IV cap. 49, 1829: 1004). The Act stated that the churchwardens were to pay an annual rent of £2 to Onslow and his successors for the land. In the words of the Act, the enlargement was justified by the fact that the existing churchyard was “too contracted for the Use of the increased Population of the said Parish” (*ibid*).⁷ The Act provided for the additional plot to be consecrated and “properly inclosed” forthwith, all at the expense of the parish. The plot earmarked for the extension of the churchyard was described in a schedule to the Act as follows:

“A Piece or Parcel of Ground containing Four thousand and five hundred square Feet, situate on the North Side and adjoining to the Churchyard of St Mary Newington...abutting towards the North on the Garden of the Parsonage...South on the said Churchyard, West on the Road in front of Churchyard Row, and North towards other Part of the Garden of the said Rectory, and containing in Length from East to West Two-hundred and twenty-five Feet, and in Depth from North to South Twenty Feet” (*ibid*: 1014).

The enlargement of the churchyard and the construction of the vaults, 1834

Whilst the leases for the glebe land were promptly rewritten in the wake of the 1829 Act, it appears that the churchyard was not enlarged in order to accommodate new burials until the following decade. Research undertaken by Stephen Humphrey at the Southwark Archives has revealed that it was not until February 1834 that the parish vestry approved proposals to make full use of the plot earmarked for development by Onslow and the churchwardens four years earlier. An entry in the vestry minutes for Wednesday, February 26th, 1834 recorded the following resolution:

“The Chairman produced a plan and Estimate of the Works proposed to be done in the Church Yard when it was Moved Seconded and unanimously Resolved That the Church Wardens be empowered to take upon the terms of an Act of Parliament of the 10th George the 4th entitled an Act for enabling the Rector for the time being of Saint Mary Newington in the County of Surrey to make certain confirmations Leases and Assurances of certain parts of the Glebe Land belonging to the Rectory and for other purposes therein described at a Rental not exceeding two Pounds Per Annum a certain piece of the said ground described in the second schedule of the said Act and they are further authorised to enclose the said piece of Ground and to Erect Vaults in conformity to a plan and specifications prepared by Mr. Christopher Edmonds and presented at this Vestry and connected in accordance with the

⁷ At the beginning of the 19th century it was still possible to dig deep graves in the churchyard. On 31 October 1804 a gravedigger named Robert Ricketts was digging a “grave of great depth” in the churchyard when one of the sides gave way, tipping both him and a headstone into the pit. Having spent an hour retrieving him, his rescuers were unable to revive Ricketts, who left behind a widow and five children (*The Gentleman’s Magazine*, Volume 74 Part 2 1804, 1168)

proposed estimate not exceeding the Sum of Five Hundred and twenty five Pounds” (Southwark Archives 1037, Vestry Minutes for 1832-46).

Having approved Edmonds’ design, the members of the vestry went on to discuss certain amendments regarding arrangements for contracting the work. A little over two months later on 2nd May, the vestry resolved to “make a Rate for defraying the expenses of Erecting a Wall and Vaults on the North Side of this Parish Church Yard” in accordance with the earlier resolution “for all other Contingent charges in reference thereto” (*ibid*). A rate of 3d in the £ was duly approved.

Christopher Edmonds (AD 1773-1853) was born in Bishopstone, Wiltshire, although he had moved to the parish of St Mary Magdalene, Bermondsey by the turn of the 19th century. Edmonds came to Bermondsey at a time when the parish was something of magnet for architects, antiquaries and artists, who were drawn by its extraordinarily rich concentration of ancient buildings. Amongst those who visited, sketched and wrote accounts of local antiquities were the antiquaries Francis Grose, Daniel Lysons, John Wilkinson, Owen Manning and William Bray and the artists C. John Mayle Wichelo and Robert Blemmell Schnebbelie. Foremost amongst these visitors was the architectural draughtsman and controversialist John Carter, whose intemperate polemics in the pages of *The Gentleman’s Magazine* did much to publicise the threat that ‘innovation’ (i.e. development) posed to the national heritage. Others, such as the architectural draughtsman John Buckler (AD 1770-1851) decided to settle permanently in the area. Buckler lived and worked at 15/16 Rockingham Row West, Newington Butts for many years, bequeathing his business to his son the architect John Chessell Buckler.

The aforementioned John Buckler was articled to Charles Thomas Cracklow, an architect, property developer, surveyor and architectural draughtsman who traded from premises in St Thomas’ Street, Southwark, and it is possible that Edmonds too was one of Cracklow’s protégés. Edmonds received his training as a Surveyor at a time when demand for the services of the profession was rising. The tide of enclosures of open fields and common land was approaching its peak, and Edmonds was one of a number of London-based surveyors who was commissioned to survey rural parishes earmarked for enclosure. In 1804 Edmonds was responsible for the enclosure survey of the parish of Harwell, Berkshire (http://www.berkshireenclosure.org.uk/background_surveyors.asp).

On 16th January 1800 Christopher Edmonds married Susanna Mary Pearson at the church of St Saviour Southwark (LMA St Saviour Southwark P92/SAV/3045). Susanna came from a wealthy background and on the death of her father in 1811 became the beneficiary of a substantial trust (*London Gazette* no. 21484 11/10/1853, 2748). The couple were married for twelve years until Susanna’s death in 1812 without issue. Three years after the death of his first wife, Christopher Edmonds, then aged 42, married the 18 year-old Peggy Larratt Robins

at the church of St Mary's Newington on 30th December 1815 (LMA St Mary Newington P92/MRY/054). The certificate of the couple's wedding indicates that both were residents of the parish, suggesting that Edmonds had moved since his first marriage. Christopher and Peggy had five children, at least three of whom lived to adulthood (<http://trees.ancestry.co.uk/tree/16469794/person/5006521941/print>). Burial records record that the couple lived in Newington Place, although a census return from 1841 recorded Christopher as a resident of Penton Row (TNA HO 107/1064/1/1/11, 14). The couple were living at 34 Newington Place in 1851, the year of Peggy's death aged 54 years (TNA HO 107/1568/23, 39; LMA Saint Peter Walworth P92/PET1/066). Christopher Edmonds died aged 79 on 23rd August 1853, a little under two years after the death of his wife (*London Gazette* no. 21484, 11/10/1853, 2748; LMA St Peter Walworth P92/PET1/067).

Despite having been commissioned to undertake enclosure surveys during his youth, for much of his career Edmonds worked much closer to his home in South London. In the early 1820s Edmonds and Francis Hurlbatt were commissioned to undertake a valuation of Walworth Churchyard (Maitland 1823, 8). By the early 1830s Christopher Edmonds practised as an architect and surveyor from premises at no. 3 Bridge Street, Southwark, situated a short distance from the southern end of Southwark Bridge. In 1833 he was employed as surveyor by the South London Waterworks Company (*Map or Plan of the Highways, Streets, Lanes, Ways, Public Passages and Places in the several Parishes...1833; Post Office London Directory* 1841, 31). In the second half of the decade Edmonds was commissioned to design the church and school of St Peter, Southwark, a new parish detached from the ancient parish of St Saviour. Construction of the church commenced in the autumn of 1838; it was consecrated in November the following year (*The Literary World* 1839, 83). A contemporary account of the church and the adjoining school house described the latter as having been built in the "Elizabethan domestic style", while the church was "a neat building, in the pointed style" (*ibid*, 82, 83).

Christopher Edmonds was still practising as an architect and surveyor in 1851, when he was 77 years old (TNA HO 107/1568/23, 39). The following year he designed a clock tower which it was proposed to erect at the foot of London Bridge at the corner of Duke Street and entrance to the railway station (*The Builder Vol. X* 1852, 377). Edmonds' design comprised a 60' tall Gothic Revival tower that the architect proposed be constructed of cast iron; however this mix of ancient form and modern fabric proved too much for the trade publication *The Builder*, which pronounced the design "wholly indefensible" (*ibid*). In the event Edmonds' design never left the drawing-board; in 1854 the Wellington Testimonial Clock-Tower was built at London Bridge in stone to a rival design produced by the architect Arthur Ashpitel.

In contrast to Edmonds' more high profile commissions, the vaults that he designed for the vestry of St Mary's appear to have attracted little or no press interest. No published account

of the construction of the vaults of St Mary's has been uncovered during the course of the present research, although further in-depth investigation of the Southwark Archives may reveal additional information. The construction of the vaults probably necessitated the landscaping of the ground immediately surrounding. It is possible that the ditch shown on Rocque's map of 1746 was finally infilled at this time: in 1859 Henry Clark Barlow wrote that during his lifetime the ditch had "disappeared, and left no trace behind" (Barlow 1859, 32).

The campaign to close urban burial grounds and the closure of St Mary's Churchyard, 1845-1855

In 1839 a surgeon named George Alfred Walker published a volume titled *Gatherings from Grave Yards, Particularly from London*, which presented the results of his investigations into the condition of the capital's burial grounds. The author was a strong advocate of the miasmatic theory of disease transmission, who campaigned tirelessly to expose "the nature and effects of the various deleterious products of human putrefaction" upon public health (Walker 1839, vi). Walker cited numerous examples from home and abroad to illustrate his case for the introduction of legislation to prohibit the burial of the dead in the vicinity of the living. Among the burial grounds described by Walker in support of his argument were those of St Saviour's, Southwark, the vault of which he described as being "extremely damp, and gives out a most offensive smell" and the Ewer Street Burial Ground in Borough, a district he characterised as "disgustingly dirty" (*ibid*, 179).

Walker's polemic was followed less than three years later by Edwin Chadwick's magisterial *Report of the Sanitary Condition of the Labouring Population of Great Britain*. In a supplement to the main report, Chadwick presented the results of his investigations into the burial of human remains in built-up areas. Like Walker, Chadwick was a proponent of the miasma theory, and his report contained chapters in which he reviewed the evidence for the transmission of disease from "putrid emanations", particularly those arising from human remains (Chadwick 1843, 7-23). Chadwick argued that deep burials and interment in vaults contaminated the water supply, and maintained that "all interments in towns, where bodies decompose, contribute to the mass of atmospheric impurity which is injurious to the public health" (*ibid*, 31). In conclusion, Chadwick recommended that interments in metropolitan churchyards, cemeteries, church and chapel vaults and catacombs should be prohibited forthwith (*ibid*, 199). He argued that public mortuaries should be provided "in every town for the use of all classes of the community" in order to prevent people from retaining the bodies of the dead in their homes prior to burial, a habit which posed grave risks to public health (*ibid*). In order that access to sanitary and dignified burial facilities should be available to all classes irrespective of income, "national cemeteries of a suitable description ought to be provided and maintained" under the supervision of medically qualified officers of public health

(*ibid*). The cost of the new cemeteries proposed by Chadwick would be met by loans bearing interest, the cost of which would be met in part by charges levied on future interments (*ibid*: 200).

Although Chadwick's manifesto did not produce immediate legislative results, it gave a considerable boost to those working in Parliament and beyond to reform burial practice in Great Britain. The architectural trade publication *The Builder* became a keen advocate for reform, publishing numerous accounts of the filthy state of London's churchyards and campaigning for the introduction of "New Cemeteries" (*The Builder Vol. IV* 1846, 416-418).

The Cemeteries Clauses Act of 1847 represented the first piece of general legislation which consolidated into one Act provisions for the regulation of new cemeteries (10 & 11 Victoria cap. 65, 1847). Although it fell far short of introducing Chadwick's recommendations into law, it did specify that cemeteries should be properly enclosed and kept in good repair (Sections 16 and 17), established penalties for fouling the water supply (Section 20), and prohibited burials in vaults under cemetery chapels or within 15' of the same (Section 39). Despite these limited advances, the editors of *The Builder* were not impressed, claiming that the Act was insufficiently stringent in respect of the mode and density of burials (*The Builder Vol. V* 1847, 251). The following year the Public Health Act, 1848 established the legislative framework that authorised the creation of local unitary bodies to improve the provision of sanitation in England's towns and cities. The Act was administered nationally by the General Board of Health for England, which approved the formation of Local Boards of Health in response to petitions raised by local residents. Subject to the approval of not less than 10% of local ratepayers, Local Boards of Health were elected to administer the supply of water, drainage, sewerage, paving, and lighting in their districts.

The Public Health Act was the stepping-stone to a series of sanitary laws that were enacted by the Government of Lord John Russell in fairly quick succession. The Nuisances Removal and Diseases Prevention Act of the same year gave the Government extensive powers to combat outbreaks of epidemic, endemic and contagious diseases. A supplementary piece of legislation to this Act, titled An Act to amend the Nuisances Removal and Diseases Prevention Act, 1848, gave additional powers to the General Board of Health to identify burial grounds that it considered "dangerous to the health of the persons living in the neighbourhood thereof" and to order the use of "disinfecting substances" to lessen or reduce the danger to public health (12 & 13 Victoria cap. 3, 1848).

In 1849 the General Board of Health issued an order under the latter Act to temporarily discontinue interments in the churchyard of St Mary, Newington (*London Gazette* no. 21020, 18/09/1849, 13). This was partially revoked on 17th September that year in order to allow the interment of two bodies in family graves in the churchyard, on condition that not less than 12lb of chloride of lime was spread beneath and above the coffins (*ibid*). A second exception to

the order was granted a few days later when three further burials in family graves were authorised by the Board (*London Gazette* no. 21025 02/10/1849, 4). However within two weeks of the latter order, an inspector to the Board reported that the churchyard of St Mary's represented a hazard to public health (*London Gazette* no. 21029 16/10/1849, 17). The report prompted the General Board of Health to order the parish vestry to execute the following measures with effect from 12th October that year:

- To cover the whole surface of the burial ground (excepting footpaths or flat stones) with quicklime to a minimum thickness of 3”;
- That in the event of any future burials to replace the quicklime to the aforesaid thickness;
- To cover the bottom of any grave dug with a layer of quicklime to a minimum thickness of 3” prior to the lowering of the coffin, in order to prevent contamination of local water supplies (not applicable to burials in stone or brick graves, vaults or catacombs);
- That not more than one corpse shall be buried in any one grave, and that every grave shall be filled to the level of the surrounding ground surface (not applicable to burials in stone or brick graves, vaults or catacombs);
- That no corpse should be buried at a distance less than 2’6” from any other grave (not applicable to burials in stone or brick graves, vaults or catacombs);
- That no corpse should be buried at a depth of less than 5’ from the surface (not applicable to burials in stone or brick graves, vaults or catacombs);
- That no corpse should be deposited in stone or brick graves, vaults or catacombs, unless it was enclosed in a lead, or lead-lined coffin, at least $\frac{1}{10}$ ” in thickness throughout and soldered or otherwise sealed as to be air-tight;
- That should, during the course of any interment any human remains, coffins or part thereof be found or become visible, the earth should be filled-in forthwith and covered with quicklime to a depth of 3” in addition to the existing covering of quicklime;
- That no grave should be dug in a location where a burial had taken place within the preceding ten years (*London Gazette* no. 21029 16/10/1849, 18).

The second Nuisances Removal and Diseases Prevention Act, 1848 directed that the General Board of Health conduct an enquiry into the state of burial grounds in towns. The Board's findings were presented in a report issued in February 1850, which recommended that special legislation be introduced to reform and regulate burial practice in the metropolis and its environs (Glen 1850, iv). In August of that year Parliament enacted the Metropolitan Interments Act, which was described at the time as “one of the most important statutes which has for many years received the sanction of the legislature” (*ibid*: iii; 13 & 14 Victoria cap.42, 1850). This Act prohibited intramural interments altogether and permitted the Board of Health to provide proper places of burial in the metropolis. The latter was to be achieved via powers to compulsorily purchase existing commercial cemeteries in the metropolis (such as the

Brompton Cemetery) and to identify and acquire sites further afield for the creation of new cemeteries.

The 1850 legislation was short-lived and was repealed and replaced soon afterwards by the Metropolitan Burials Act, 1852 (15 & 16 Victoria cap.85 1852). In contrast to its predecessor, the new Act was generally permissive rather than prohibitive in nature. The 1852 Act allowed burials to resume in existing metropolitan cemeteries, although the Government reserved the right to call a halt to all such burials at short notice (Section 2). Government orders to discontinue burials were to be published in the pages of the *London Gazette* and affixed to the doors of the churches to which they applied (*ibid*). The Act prohibited the creation of new cemeteries within two miles of the metropolis without the previous approval of one of the principal Secretaries of State (Section 9). The Act also enabled parishes either separately or in conjunction to purchase and lay out burial grounds and to appoint burial boards to administer the same (Sections 10, 11, 25 and 26).

Although the 1852 Act allowed burials within the environs of the metropolis to resume, it was not long before the Government began to issue orders prohibiting the interment of the dead within the capital's burial grounds. On 13th June 1853 an order in council was issued prohibiting burials in the churchyards of St Mary Newington and St Peter Walworth, "with the exception of existing rights" (*London Gazette* no. 21448 14/06/1853, 16). The same order was issued less than two months later with effect from 15th August, although it is not entirely clear why it was repeated (*London Gazette* no. 21465 09/08/1853, 24). In late October similar orders were issued prohibiting interments in the burial grounds of a number of non-conformist chapels in the parish (*London Gazette* no 21488, 25/10/1853: 5).

It appears that interments resumed at St Mary's in 1854, for an order preventing them was issued on 14th November (*London Gazette* no. 21629 17/11/1854, 3). Less than a month later another order in council was issued, which prohibited any further burials in the churchyard from and after 23rd December 1854 (*London Gazette* no. 21641 15/12/1854, 2). The latter order appears to have been the last directed at the vestry of St Mary's, and marks the point at which burials in the churchyard officially ceased.

The case of Rex vs. Feist and the burial of the poor at St Mary Newington, 1858

In February 1858 Albert Feist, the Master of the Newington parish workhouse, was brought to trial at the Old Bailey in London, charged with 64 counts of selling the bodies of inmates to Guy's Hospital for dissection. Feist was further accused of substituting the remains of other deceased paupers for those who had in fact been taken away for dissection by medical students (Hurren 2012, 7).

The case attracted considerable attention from the press, containing as it did a macabre mix of death, destitution and dissection. The principal charges levelled against Feist pertained to a series of burials of inmates that took place between 1856, when he was appointed to the workhouse, and 1858 when he was dismissed by his employers. In the mid-1850s the workhouse accommodated around 550 paupers, of whom approximately 30% died per annum (*ibid*: 10). None of the interments that formed the centrepiece of the Crown's case against Feist took place at St Mary's, as the churchyard had been closed for more than a year before he took charge of the workhouse. However as the case progressed, it became apparent that the arrangement between the workhouse, an undertaker named Hogg and the Hospital to supply corpses for dissection had been in existence some time before Feist took over (*ibid*: 16). The case revealed how the bureaucratic machinery established by the Anatomy Act of 1832 had enabled the masters of Newington and other workhouses to establish covert channels to supply medical schools with the bodies of deceased inmates.

Although initially found guilty by the jury, Feist's conviction was overturned on appeal. The investigation into Feist's alleged misdemeanours failed to ascertain for how long the practice had been taking place at the Newington workhouse, and the true extent of the trade in corpses there was never fully determined. The parish burial register of St Mary's Newington reveals that burials of workhouse inmates accounted for a not inconsiderable proportion of interments during the second quarter 19th century. The remains of five named individuals together with a coffin breastplate from a sixth individual were disinterred during the recent archaeological investigations (**Appendix biographies** and **Appendix human bone**). The burial records of these interments reveals the following proportions of workhouse burials around the time that these individuals were buried:

Of the 16 people buried in St Mary's churchyard between 14th March 1826 and 29th March 1826, two were listed as workhouse inmates (12.5%);

Of the 16 people buried in St Mary's churchyard between 7th September 1834 and 19th September 1834 four were listed as workhouse inmates (25%);

Of the 16 people buried in St Mary's churchyard between 30th July 1837 and 13th August 1837 three were listed as workhouse inmates (18.75%);

Of the 16 people buried in St Mary's churchyard between 1st June 1838 and 13th June 1838 four were listed as workhouse inmates (25%);

Of the 15 people buried in St Mary's churchyard between 23rd December 1843 and 31st December 1843 one was listed as a workhouse inmate (6.66%);

Of the 16 people buried in St Mary's churchyard between 31st August 1845 and 17th September 1845 three were listed as workhouse inmates (18.75%);

Therefore from this sample of 95 burials that took place in the churchyard of St Mary's Newington between March 1826 and September 1845, a little less than 18% were of workhouse inmates.

The closure of St Mary Newington and the construction of St Gabriel's mission church, 1871-1876

In November 1871 the Metropolitan Board of Works announced its intention to seek powers in the forthcoming session of Parliament to widen a number of highways in the metropolis. Amongst the various improvement schemes described in a notice dated 13th November were details of the Board's proposals to widen Newington Butts (*London Gazette* no. 23800 28/11/1871). The extent of the proposed scheme was defined as follows:

"To widen part of Newington-butts, on the north-west side thereof, from Churchyard-row to a point about 100 yards to the north-east thereof, and for this purpose to remove the parish church of St Mary, Newington, which said improvement will be wholly situate in the parish of St Mary, Newington in the county of Surrey".

Having obtained powers to compulsorily purchase the land and properties required for the enlargement of the highway, the Board offered the parish the sum of £5,000 as compensation for the demolition of the church (Walford 1878, 255-268). In 1872 a subscription fund was established to raise money towards the erection of a new church to replace the one lost to road widening (Cuming 1872, 5). Three years later the London Churches Fund issued a grant of £4,000 towards the construction of the new church, while the rector donated a further £1,000. The remainder of the money required, about £9,000, was raised from parishioners and other donors (Walford 1878, *ibid*). The Ecclesiastical Commissioners provided a site for the replacement building on the east side of Kennington Park Road, where a new church designed in the Early English style by James Fowler was built and consecrated in May 1876 (Darlington 1955, 91-94).

The demolition of the old church commenced at the same time, and building materials recovered from it were disposed of by public auction, realising a sum of £538 (Walford, 1878: *ibid*). During the demolition a number of hitherto lost funeral monuments were rediscovered and recorded (Hovendon 1880). Two fragments of the earlier church were taken to the new church in Kennington Park Road for display; an 18th century oval marble font and a tapering square shaft, approximately 2'8" in height (Malden 1912, 74-77). The latter was recovered during excavations to build a new vault on the south side of the former church to accommodate the remains of some five hundred individuals removed from the churchyard (Walford 1878, 255-268).

The Parsonage House and the majority of the houses built by Cole and Meymott in Parsonage Row and the west side of Newington Butts in the 1760s were demolished c.1872 (Cuming 1872, 5; Malden 1912, 77-77). The truncated churchyard was landscaped and opened to the public as a recreation ground. New paths were laid out and the garden enclosed by iron railings and gates. In 1877 a Gothic Revival clock tower was erected on the site of the old church.

Following the decision to demolish and rebuild St Mary's in a new location it was decided to build a chapel-of-ease to the mother church as close as possible to the old site, presumably to serve the spiritual needs of those members of the local population of the district unable or unwilling to attend the new church in Kennington Park Road. In 1872 the architect John Edward Knight Cutts (AD 1847-1938) was commissioned to design the new mission church and the new St Mary's schools, which were added to the existing National School that stood to the north-east of the old Parsonage House (LMA A/SMN/270-299).⁸ Cutts' drawings of the new church are dated July 1873 and show a compact aisled structure, designed in a 13th century church style and constructed of red brick, characteristic of the architect's work. The new church was dedicated to St Gabriel and was consecrated in 1874 (Malden 1912, *ibid*).

At around the same time Parsonage Walk was extended to the north-west and rows of 3½ and 4-storey terraced housing were erected on either side of the extension and on the site of the Parsonage House and its grounds. Census returns of 1881 indicate that the street contained 37 properties (odd nos. 1-41, even nos. 2-30 plus Pastor's College to the north). There were 600 residents (an average of 16.2 per property), 52% of whom were women and 48% men (TNA RG 11/553/63-75). The population was of overwhelmingly low socio-economic status, typical occupations including carmen/cabmen and unskilled factory workers amongst the males, and dressmakers and book folders prevalent amongst the female residents. Two households containing a total of 16 people lived at no. 2 Parsonage Walk and five households containing a total of 24 people lived next door at no. 2.

The district at the end of the 19th century

At some point between 1881 and 1891 Parsonage Walk was renamed St Gabriel Street in recognition of the nearby mission church. When the philanthropist and social reformer

⁸ John Edward Knight Cutts (AD 1847-1938) was articled to the prolific church architect Ewan Christian (AD 1814-1895) from 1865 to 1870 after which he set up in independent practice at 28 Southampton Street, The Strand. His younger brother, John Priston Cutts (AD 1854-1935), who was also a pupil of Christian, began working for Cutts senior in 1877 before being promoted to partner by 1886. Cutts senior was diocesan surveyor for St Albans in 1881-7 and was elected FRIBA in 1891. The firm developed a busy church architecture practice, which specialised in the design of comparatively large low-cost buildings, typically built of red brick in the Early English style

Charles Booth visited the area in June 1899 he was unimpressed by what he saw. St Gabriel Street was particularly unedifying; although it had been enlarged little more than 25 years earlier, it presented a depressing scene of deprivation and immorality. Booth described it as “poor + vicious, thieves + prost[itutes]: used to be all brothels at the NE end but was cleared out two years ago by [*sic*] the help of the Vigilance Association” (Booth B365, 10-11).⁹ According to Booth the street had improved somewhat in the years since his previous visit in October/November 1890, and while a number of prostitutes remained, the brothels had gone (*ibid*, 12). Prior to the closure of these establishments, the street had been the haunt of “the infamous Girdle gang”, who had relocated to Hackney following the suppression of the brothels (*ibid*). Booth observed that the street was full of litter and that the windows of the houses were “dirty, patched and broken” (*ibid*).

Census returns from 1891 indicate that by the latter date the total population of the street had fallen to 463 residents, of whom the proportions by gender remained unchanged from ten years previously: 52% women and 48% men (TNA RG 12/366/64-71). A total of 39 occupied properties were recorded, giving a population density of 11.9 occupants per property. Amongst the male residents the most common occupations were cabmen/grooms, low-skilled manual workers and occupations associated with the printing trade, while female occupations included charwomen, dressmakers and laundresses. Two households comprising a total of 12 people lived at no.2 and four households containing a total of 15 people lived at no. 4.

Churchyard Row, which had been the home of the Barlow dynasty a century earlier, was mainly taken up by a vast Rowton House, which accommodated 805 short-term male residents (*ibid*, 13).¹⁰ The house at no. 14 Churchyard Row that Joseph Barlow built for his family had become the Wilberforce Mission House, which appears to have operated in conjunction with St Gabriel’s chapel (<http://www.southwark.anglican.org/downloads/lostchurches/NEW11.pdf>). Longville Road, which linked the north end of Churchyard Row with Dante Road to the west, and was lined with 3½ and 4-storey terraced housing like St Gabriel Street and was home to a number of prostitutes, though many fewer than its near neighbour. Booth described it as a “dead, dismal street” (*ibid*, 15). &&&

⁹ The National Vigilance Association was formed in August 1885 “for the enforcement and improvement of the laws for the repression of criminal vice and public immorality”. It campaigned for the enforcement of the Criminal Law Amendment Act 1885, which contained measures for the suppression of brothels and raised the age of consent for girls from 13 to 16. A number of existing local Vigilance Committees were expected to affiliate to this new body, which in turn was to stimulate the formation of new vigilance committees (<http://www.nationalarchives.gov.uk/a2a/records.aspx?cat=106-4nva�>).

¹⁰ The Rowton Houses were a chain of hostels established by the politician and philanthropist Lord Rowton in the early 1890s to provide short-term accommodation for homeless manual labourers. The Newington Rowton House opened in December 1897.

The district during the 20th century

Records held by the London Metropolitan Archives (LMA) indicate that a number of improvements were made to the chapel of St Gabriel during the first quarter of the 20th century. These included the addition of a second Communion table in 1909/10 and the insertion of a new stained-glass window in 1913. However by the mid-1930s the requirement for a mission church to minister to the locals had evidently declined, prompting the Diocese of Southwark to declare it redundant in 1936. The following year the building was demolished and the site was sold to Southwark Council for £4 in 1939 (**Figure LCC Rev 1939 OS Map**).

During the night of Saturday 10th /Sunday 11th May 1941 the area surrounding the Elephant and Castle was heavily bombed during the largest air raid of the Blitz of 1940/41. The most severe damage was concentrated to the north of the site along Newington Causeway, although the LCC bomb damage map compiled at the end of the Second World War indicates that properties at either end of the north side of St Gabriel Street were similarly damaged or destroyed (**Figure LCC Bomb Map**). An Ordnance Survey map published in 1950 reveals the extent both of bomb-damage and post-war demolition in the vicinity: nos. 6-14 St Gabriel Street had been demolished whilst no. 20 was a ruin (1950 OS). The function of the glazed roof structures on the site of the former church of St Gabriel is presently unknown, whilst a similarly enigmatic four-sided structure in the former churchyard of St Mary's may have a wartime structure, such as an Emergency Water Supply (EWS) tank, several of which were constructed in the vicinity in order to store water for fire fighting.

The bombing of the Elephant and Castle in May 1941 kick-started schemes for the redevelopment of the area. Patrick Abercrombie's County of London Plan of 1943 envisaged the wholesale demolition of the area and the construction of a vast new road gateway to the capital. In 1951 the London County Council prepared plans for the remodelling of the district around two new roundabouts, which were subsequently built at the junction of Newington Butts and Walworth Road and at the south end of Newington Causeway. St Gabriel Street was removed altogether and the surviving buildings demolished (**Figure Ordnance Survey map 1968**). The redevelopment of the area gained traction during the decade that followed, beginning with the completion in 1963 of Alexander Fleming House, designed by Erno Goldfinger to accommodate the Department of Health and Social Security. This was followed two years later by the opening of the three-storey Elephant and Castle Shopping Centre, designed by the architects Boissenvain and Osmond for Willets Developments. The Heygate Estate in the New Kent Road was completed in 1974, around the same time that the Elephant and Castle Leisure Centre was built on the site of the former Gabriel Street. This facility remained in use for almost 40 years, closing in 2012 in advance of the next wholesale regeneration of the district.

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APPENDIX 9 - BIOGRAPHIES OF NAMED INDIVIDUALS RECOVERED FROM THE ARCHAEOLOGICAL INVESTIGATIONS

By Guy Thompson

Sarah Poignand (c.1801-1826)

Few records concerning the early years of this individual are known to have survived, other than the fact that she was born Sarah Ellis around 1801. The record of her marriage to Hippolitus Poignand at the church of St Mary, Newington on 3rd June 1825 notes that Sarah was 24 years of age and a resident of the parish when she wed (<http://search.ancestry.co.uk/cgi-bin/sse.dll?h=5992177&db=LMAmarriages&indiv=try>). The wedding was witnessed by a certain Thomas Ellis, who was probably Sarah's father, although neither the name of her mother nor her place of birth is known. The ceremony was conducted by Arthur Cyril Onslow, the long-standing Rector of St Mary's, in the presence of Thomas Ellis and Catherine and Louis Poignand, who appear to have been Hippolitus' siblings.

The newly married couple lived in the City parish of St Katherine Coleman, in Aldgate Ward, where Hippolitus traded as an indigo broker from premises at 48 Fenchurch Street (*The London Gazette* no. 18261 24/06/1826, 1555). Despite the couple's relative youth, Sarah died without known issue aged 25 in the spring of 1826. Sarah was buried on 28th March at the church of St Mary, Newington, where she had married Hippolitus less than ten months earlier (LMA St Mary Newington P92/MRY/122). The funeral service was conducted by Reverend Charles James Blenkarne, the Curate of St Mary's, who committed suicide the following August, having been in "a state of despondency" for the preceding four or five months (*The Gentleman's Magazine* 1826, 283).

In contrast to the scant information available concerning Sarah's short life, that of her husband is somewhat better documented. Hippolitus Poignand (II) was born in Calcutta in 1801, one of at least two sons of the silversmith Hippolitus Poignand I (29/08/1761 - 19/05/1805). Although the elder Hippolitus' brother Louis was apprenticed in London to the watchmaker Jonah Emery in 1770, it is not clear where Hippolitus trained (Derozario 1815, 125; TNA IR 1/26).¹¹ In July 1792 Hippolitus (I) married Margaret Bride in London before setting off for India, where he arrived the following year (Wilkinson 1987, 160). Poignand quickly established himself as one of a number of manufacturers of silver plate who flourished in Calcutta during the latter years of the 18th century, producing a wide range of tableware for the British expatriate community there. From 1794 to 1798 Poignand traded from premises at

¹¹ Derozario maintained that the eldest Hippolitus Poignand's funeral monument stated that was born on 29th August 1761; Wilkinson stated that he was born on the same date seven years later (Derozario 1815, 125; Wilkinson 1987, 160).

13 Bankshall Street, Calcutta, before moving to an address in Tank Square, where he remained until 1800. Subsequently Poignand moved to 51 Theatre Street, from which address he traded until 1805. Poignand died aged 43 on 19th May 1805, following which his stock was acquired by the French watchmaker Joseph Rondo, who maintained the business as a plate manufactory (Derozario 1815, 125; Wilkinson 1987, x, 160, 173). Poignand's body was buried in the New Burial Ground in Calcutta, where a prominent memorial with Latin inscription was erected in his memory.

It is not known when the younger Hippolitus and his siblings moved to England, although it seems likely that his mother left India shortly after the death of his father. Hippolitus' involvement in the indigo trade suggests that he may have maintained some form of connection with the land of his birth. Hippolitus entered into partnership with his contemporary John James Iselin, a native of Camberwell, trading together at Fenchurch Street as Iselin jun. and Poignand (TNA HO 107/1052/3/31, 14; *The London Gazette* no. 18261 24/06/1826, 1555). The partnership was dissolved by mutual consent in mid-June 1826, less than three months after the burial of Sarah Poignand (*ibid*). Thereafter Hippolitus traded as an indigo broker and dealer on his own account (LMA St Mary Lambeth P85/MRY1/358). Iselin appears to have left the trade, although he continued to work in the City and was listed as the manager of the offices of the Southampton Dock Company in a directory of 1852 (*Post Office London Directory* 1852, 998).

Following the dissolution of the business partnership, Hippolitus Poignand moved to the parish of St Mary, Lambeth, where he married a 17 year-old native of Southwark named Margaret Jeffreys at the end of August 1829 (<http://search.ancestry.co.uk/cgi-bin/sse.dll?h=2384924&db=LMAmarriages&indiv=try>). The couple were living in Union Street, Lambeth when Hippolitus died aged 32 around the beginning of January 1833 (LMA Lambeth St Mary, P85/MRY1/493). Hippolitus was buried in the parish churchyard on 8th January that year. Margaret appears to have been pregnant with the couple's son at the time of Hippolitus' death, for their son Hippolitus (III) was baptised at the parish church on 10th April 1833 (LMA Lambeth St Mary, P85/MRY1/358). By the early 1840s Hippolitus (III) and his younger sister Catherine were both living in Borough Road, Southwark with their grandmother Esther Jeffreys (TNA HO 107/1084/1/2/8, 8). Thereafter Hippolitus took up a variety of occupations, including working as a traveller in 1861, a French polisher in 1871 and a house painter in 1881 (TNA RG 9/336/109, 21; TNA RG 10/607/42, 21; TNA RG 11/4439/50, 28). By the latter date he and his wife Maria had settled in Bradford, West Yorkshire, having lived previously in Kennington and Southwark.

William Sedgwick (1832-1834) and Elizabeth Lee Sedgwick (1836-1837) &

William Sedgwick was the first child, and his sister Elizabeth Lee Sedgwick the third, of William and Amelia Bayne Sedgwick, who were married at the parish church of St Dunstan's and All Saints Stepney on 20th December 1831 (LMA St Dunstan's and All Saints P93/DUN Item 070). Subsequent census returns suggest that both William (senior) and Amelia were approximately 25 years-old when they wed, although Amelia may have been a couple of years older than her husband. The couple's wedding certificate states that Amelia's maiden name was Williams, and that she was a resident of the parish of St Dunstan's and All Saints. The marriage ceremony was witnessed by Amelia's elder sister Elizabeth Williams. Census returns state that both Amelia and Elizabeth were born in Shadwell (TNA HO 107/1556/301, 7; TNA HO 107/1484/293, 46). Whilst Amelia had married when she was in her twenties, her sister remained a spinster until 1851, when at the age of 50 she married a widowed schoolmaster and Calvinist Minister called William Cowper, who was 15 years her senior (LMA P88/ALL1, Item 031; TNA HO 107/1556/301, 7; TNA RG 9/568/17, 9). William Cowper died in the early 1860s and his widow was recorded as a visitor to her brother-in-law's house by census returns taken in 1871 and 1881 (TNA RG 10/2036/56, 2; TNA RG 11/2130/58, 33).

Although Amelia lived in the parish of St Dunstan's and All Saints when she married, her husband was a resident of the parish of St James, Westminster at the time (LMA P93/DUN/070). Census returns indicate that William was born south of the Thames c.1805, his place of birth recorded variously as Kennington (1851), Newington (1861 and 1871) or Walworth (1881), suggesting that he was originally a native of St Mary Newington or one of its immediate neighbours. William was described as a warehouseman in a document of 1833 and in a census return of 1841, both of which listed the couple's address as Regent's Street, in the parish of St James, Westminster (LMA Piccadilly St James DL/T/090/026; TNA HO 107/736/5/5/9, 13). It has been suggested that William was the son of another William Sedgwick, who had married a certain Penelope Watts in Shoreditch in January 1793 (<http://www.sedgwickuk.org/uk/places/surrey/william1805/sedgwick-william1805.html>; LMA St Leonard Shoreditch P91/LEN/A/01/Ms7498/17).

William and Amelia Sedgwick's first child, also named William, was born on 23rd December 1832 and baptised exactly two months later at St James' Church, Piccadilly (Westminster) on Saturday 23rd February 1833 (LMA Piccadilly St James DL/T/090/026). The younger William did not live for long, dying at the age of only 20 months in September 1834 (LMA St Mary Newington P92/MRY/130). William was buried in the churchyard of St Mary Newington on Tuesday 16th September, the ceremony performed by the Curate, Thomas England. The parish register noted William's place of residence as Peckham, although it is not entirely clear why, given that the family continued to reside in Regent's Street at this time.

Following the death of their first-born, Amelia gave birth to a second child, a daughter also named Amelia, on 1st November 1834 (England, Select Births & Christenings, 1538-1975

FHL file no. 1042311). Ten weeks later the child was baptised at St James' Piccadilly on 15th January the following year (*ibid*). Amelia (junior) was subsequently sent by her parents to the Mount School in Hampstead, where she was boarding in 1841 (TNA HO 107/674/6/9/12, 19). Ten years later she was staying at another school of the same name in York, where she was a guest of her cousin Amelia Clipperton, a governess whose mother (also Amelia, née Bayne), was also staying at the school at the same time (TNA HO 107/2354/83, 36). In January 1855 Amelia Sedgwick (junior) married a merchant named Robert Escombe at the church of St Luke, Chelsea, in the presence of her father William and her sisters (LMA St Luke, Chelsea P74/LUK/216).

The couple's third child, a daughter named Elizabeth Lee Sedgwick, was born on the 19th of July 1836 and baptised nearly three months later on the 15th of October at the church of St James, Piccadilly (England, Select Births & Christenings, 1538-1975 FHL file no. 1042311). Elizabeth's life was even shorter than that of her elder brother, the record of her burial stating that she died at the age of just one year and ten weeks (LMA St Mary Newington P92/MRY/132). Given the date of her birth, the information recorded in the burial register appears to have been transcribed incorrectly, suggesting that she died at the age of one year and ten days, on or around 29th July 1837. Her funeral took place at the churchyard of St Mary Newington on Friday 4th August, where the Reverend J. Irons, curate of St Mary's presided. It is not entirely clear why Elizabeth's place of residence was listed as Streatham, while her death was registered in the adjacent district of Wandsworth and Clapham, suggesting that the family may have had a second home or premises in the area (<http://search.ancestry.co.uk/cgi-bin/sse.dll?indiv=1&db=FreeBMDDeath&h=30018984>).

Following the death of their first daughter, William and Amelia had a fourth child, a boy named Francis who was born in Westminster in 1838 (TNA HO 107/736/5/9: 13). The place of Francis' baptism is not known. It is possible that the child was given the name Francis in recognition of another family member ('Susanna Watts' below). Towards the end of the following year, the couple's fifth child, a daughter christened Frances Sarah Sedgwick was born in the Parish of St James, Westminster, probably at the family's Regent's Street address (<http://search.ancestry.co.uk/cgi-bin/sse.dll?indiv=1&db=FreeBMDBirth&h=49150240>). By the spring of 1841 the couple had a sixth child, an as-yet unnamed two month-old baby daughter, in addition to Francis (then aged 3) and Frances (aged 1). The family shared the address with as many as 51 dressmakers, suggesting that the premises were used as a manufactory, with residential accommodation for the family (TNA HO 107/736/5/9, 13). A census return of 1851 later listed the Sedgwick's address as nos. 5, 7 and 9 Regent's Street, and it seems likely that this was the same property in which the family resided ten years earlier (TNA HO 107/1484/293, 46). A directory of 1841 recorded this address as the premises of Howell & James, warehousemen, suggesting that William may have been the resident manager or supervisor of the property (*Post Office London Directory* 1841, 215). By 1851 William

Sedgwick was described simply as a Merchant, who lived at the Regent's Street address with Amelia and his daughters Catherine (who had been a baby in 1841), Isabella (aged 8) and a 6 year-old son whose name was listed simply as 'W.H' (TNA HO 107/1484/293, 46). William and Amelia's third daughter Frances, meanwhile, was 12 years-old in 1851 and boarding at a school in Hampstead; although the whereabouts of her elder brother Francis are uncertain, he too was probably living and studying away from home (TNA HO 107/1492/221, 43). The family shared their home with three domestic servants, whilst William's former duty as a warehouseman was carried out by 52 year-old Henry Gillett, who lived at the address with his wife Mary Ann.

By the early 1860s William and Amelia were sufficiently wealthy to have left the Regent's Street address and settled at 42 Baker Street, Clerkenwell, where they lived with their children Francis and Catherine and a live-in cook and housemaid (TNA RG 9/192/92, 31). William described himself as a retired jeweller and silk merchant, whilst his eldest surviving son Francis worked as a clerk for a firm of East India Merchants. The couple appear to have enjoyed a relatively long and comfortable retirement, much of which they spent in the seaside town of Seaton in Devon, where they were living in 1871. A census return of that year recorded that the couple shared an address in Fore Street with their unmarried daughters Frances and Isabella and a live-in domestic (TNA RG 10/2036/56, 2). Amelia died aged 73 in the second quarter of 1875, her death registered in Kingston, Surrey. William, his daughter Frances and his sister-in-law Elizabeth Cowper remained at the Fore Street address, where they were listed in a census return of 1881 (TNA RG 11/2130/58, 33). The family's whereabouts after this date are unknown.

Francis Talbot (c.1768-1838)

Despite being one of the longest-lived of the individuals discovered at St Mary's, Francis Talbot appears to have left relatively few traces in the parochial archival record. Buried on 6th June 1838 by Reverend ? Chute, curate of St Mary's, Talbot was 70 years-old at the time of his death and a resident of nearby Penton Place (<http://search.ancestry.co.uk/cgi-bin/sse.dll?h=9831290&db=LMAdeaths&indiv=try>).

A notice published in *The Gentleman's Magazine* in August that year stated that Talbot had died on the 30th of May, adding that he was the eldest son of the late Captain George Talbot, Royal Navy (*The Gentleman's Magazine* 1838, 224). Admiralty records held by The National Archives contain a number of references to Captain George Talbot who was active during the period c.1764-1782. Captain Talbot held a number of commands, including that of the 8-gun sloop HMS Wasp in 1764, the 14-gun sloop HMS Jamaica (from 1768 to 1770) and the 20-gun frigate HMS Lively in 1771-3 (TNA ADM 106/1136/177; TNA ADM 106/1183/307; TNA ADM 106/1174/25; TNA ADM 106/1193/215; TNA ADM 106/1205/283). If parish burial

records are accurate, then Francis Talbot was born during his father's command of HMS Jamaica, which was lost at sea in 1770 off the island that gave the vessel its name. Following his service with HMS Lively, Captain Talbot served as commander of HMS Worcester, a 64-gun third-rate ship of the line. In August 1782 Captain Talbot was returning to England from Calcutta as a passenger on the East Indiaman Grosvenor, when the ship ran aground on the coast of Pondoland in modern-day South Africa. Both Captain and Talbot and his servant were amongst more than 100 passengers and crew who lost their lives in the aftermath of the shipwreck, in circumstances that scandalised Georgian England (*The Gentleman's Magazine* 1831, 473).

Francis Talbot was the eldest of Captain Talbot's three children; his brother Montague abandoned a career in the law for the stage, becoming "one of the most eminent comedians that ever graced the British stage", in the words of his obituary of 1831 (*ibid*). The same account described his brother Francis as "a bachelor, of good fortune and private habits" (*ibid*). It is possible that Francis was the same individual as the Francis Talbot who was appointed to the rank of Cornet (2nd Lieutenant) in the 9th Regiment of Dragoons on 30th April 1793 (*London Gazette* no. 13540 22/06/1793).

The notice of Francis Talbot's death made reference to a claim that the deceased was descended directly from the Duke of Shrewsbury (*The Gentleman's Magazine* 1838, 224). The latter was the late Stuart statesman Charles Talbot, 1st Duke of Salisbury, who died without heir in 1718. On Salisbury's death the Dukedom became extinct. Irrespective of the truth of the claim, Talbot's descent was illegitimate.

William Thorowgood Brewington (1843)

A breast plate bearing the inscription 'Will...Thorowgood Brewingtier Died 25 Dec 1843 Aged 3 mths' corresponded with a reference in the register of burials at St Mary Newington to the inhumation of an individual of the same name and age conducted by the Reverend David Wood on 27th December 1843 (LMA St Mary Newington P92/MRY/135). The deceased's personal details corresponded with those of a certain William Thorowgood Brewington, whose birth in the parish was recorded in the autumn of 1843 (<http://search.ancestry.co.uk/cgi-bin/sse.dll?indiv=1&db=FreeBMDBirth&h=33825913>). Parish records indicate that William was baptised at St Mary's on 15th October 1843 (LMA P92/MRY/048). The child's death was registered under his correct name in the winter/spring of the following year (<http://search.ancestry.co.uk/cgi-bin/sse.dll?indiv=1&db=FreeBMDBirth&h=3999262>). The reason for the incorrect spelling of the baby's name on the breastplate is unknown, although it is possible that the error on the latter was subsequently transcribed into the parish register by the curate.

William Thorowgood Brewington was the first son of William and Mary Ann Brewington (née Thorowgood), whose marriage was registered in the Romford district of Essex in the winter/ spring of 1842 (<http://search.ancestry.co.uk/cgi-bin/sse.dll?indiv=1&db=FreeBMDMarriage&h=3431841>). A census return taken the year before the couple married indicates that Mary Ann was a native of the county, who was born around 1821. At the age of 20 Mary Ann was living at an address in King Street, High Ongar with her 45 year-old mother Elizabeth, 15 year-old brother George and 6 months-old William (TNA HO 107/336/16/26,14). High Ongar was an overwhelmingly rural district, and both Mary Ann's mother and her brother George worked as agricultural labourers, along with the majority of the family's neighbours.

Mary Ann's husband, William Trowbridge Brewington, was 28 years old when the couple married. Born on 15th September 1814 and baptised at the church of St Mary, Marylebone on 3rd November that year, William was the eldest son of Sier (also known as Syier) and Charlotte Sophia Brewington (England, Select Births & Christenings, 1538-1975 FHL file no. 580907/580908). Sier Brewington was born around the end of the 1780s in Suffolk, where his distinctive surname was comparatively common (TNA HO 107/1572/597, 33). Having migrated to the metropolis, Sier married Charlotte Sophia, a native of Shoreditch (*ibid*). Records indicate that Sier worked as a boot and shoemaker for most, if not all of his working life. In 1824 he and Charlotte Sophia were living in Vauxhall Road Lambeth where their daughter Mary Prudence Brewington was born (LMA P85/MRY1/354). A directory of 1846 lists Sier as a boot and shoe maker who traded from premises at 7 Vauxhall Row, Lambeth (*Post Office London Directory*, 1846: 623). In 1851 the couple were living at 66, Union Street Southwark with their younger son John, who worked as a shoemaker with his 62 year-old father (TNA HO 107/1572/597: 33).

William Brewington worked in the same trade as his father and younger brother. He was described as a boot maker in the register of his son William Thorowgood's baptism, which also noted that the family lived at an address in Staverton Row, Newington (LMA St Mary Newington P92/MRY/048). The couple had moved to the address at some point between the spring of 1842 and September 1843, where they remained for the entirety of the younger William's short life (LMA St Mary Newington P92/MRY/135). Contemporary census returns and directories indicate that there were 12 properties in Staverton Row, which was situated on the east side of Walworth Road. The majority were the premises and residences of small businessmen and their families (TNA HO 107/1063/6/9/25, 42). The Brewingtons are not listed as occupants in directories published between 1842 and 1846, by which date they had moved elsewhere. This suggests that the family probably rented accommodation in one of the other properties, perhaps from William senior's employer. Of the four properties in Staverton Row that were not listed in a directory of 1842, no. 12 was described in a census return of the previous year as the home (and probable business premises) of a shopkeeper,

no. 9 as those of a bonnet maker, no. 4 as those of a 'dealer' and no. 3 as the residence of a shoemaker's assistant (TNA HO 107/1063/6/9/25: 42-43). The latter property was also listed as the premises of a boot and shoe manufacturer named Thomas Dutton junior in directories of 1843-1846, and was described as a 'shoe warehouse' (with a resident 'shopman/manager') in a census return of 1851 (*Post Office London Directory*, 1843: 438; *Post Office London Directory*, 1846: 536; TNA HO 107/1563/292, 37). Given William Brewington's trade and the property's association with shoemaking at the time, it seems likely that William Brewington and his young family lived and worked at the latter address during the early 1840s (TNA RG 11/163/30: 6).

Following William junior's death in December 1843 the couple moved from Staverton Row, Newington, to Clapham, where their second son Frederic George Brewington was born during the autumn of 1845 (<http://search.ancestry.co.uk/cgi-bin/sse.dll?indiv=1&db=FreeBMDBirth&h=33825915>). It is not clear where the family lived during the ten years after Frederic was born, although he and his mother were living at 66 Marylebone High Street in 1861 (TNA RG 9/89/7, 5). The reason behind Mary Ann's move to the parish of her husband's birth is not known, though she had been widowed by the early 1860s.¹² While Mary Ann's occupation in 1851 and 1871 are not known, she was employed in her late husband's line of business in the early 1880s, when she and her son Frederic were still living in Marylebone High Street. By 1881 the latter had married Harriet Page (TNA RG 11/163/30, 6; LMA St Marylebone P89/MRY1/251). Following Mary Ann's death in summer 1887 aged 67, Frederic and Harriet moved to Berners Street in Marylebone, where they were living in 1891 (TNA RG 12/89/74, 40). The couple appear not have had any children together and Frederic died aged 58 years in 1904 (<http://search.ancestry.co.uk/cgi-bin/sse.dll?indiv=1&db=FreeBMDDeath&h=3999209>).

Susanna Watts (c.1761-1845)

The register of burials at St Mary Newington records that Susanna Watts was buried on 8th September 1845 by the rector, the Reverend Arthur Cyril Onslow (LMA St Mary Newington P92/MRY/136). Susanna was 84 years old when she died and lived in a property in Albany Road, Camberwell, which she shared with a certain Francis Sedgwick (aged 49), Sophia Smith (aged 50) and a live-in domestic servant (TNA HO 107/1052/2/5/37, 28). The household appears to have been a wealthy one and Watts, Sedgwick and Smith were all described by a census return of 1841 as having been of independent means. The relationship between Watts and her fellow householders is not fully understood,

¹² William Brewington died either in Berkshire in 1847, or (more likely) in the Romford district in 1852 (<http://search.ancestry.co.uk/cgi-bin/sse.dll?indiv=1&db=FreeBMDDeath&h=3999258>; <http://search.ancestry.co.uk/cgi-bin/sse.dll?indiv=1&db=FreeBMDDeath&h=3999259>).

although a subsequent census return indicates that Smith was Sedgwick's sister-in-law despite the fact that both were unmarried. At some point, presumably after Watts' death, Sedgwick and Smith moved to the village of Milford, near Salisbury, where they were living on Milford Hill in 1851 (TNA HO 107/1846/415, 21). In a census return of that year, Sedgwick was described as an annuitant and Smith as a fund holder.

It is conceivable that Susanna Watts had some kind of familial relationship with William and Amelia Bayne Sedgwick, which may also explain her subsequent association with Francis Sedgwick. In January 1793 William's probable father, also named William, wed a certain Penelope Watts (d.1818) at the parish church of St Leonard, Shoreditch (LMA St Leonard Shoreditch P91/LEN/A/01/Ms7498/17). According to the Sedgwick.org genealogy website, Penelope Sedgwick was remembered in a funerary memorial at St Mary's Newington, which also commemorated the lives of her daughters Mary and Ann Sedgwick and her grandchildren William Sedgwick and Elizabeth Lee Sedgwick (<http://www.sedgwickuk.org/uk/places/surrey/william1805/sedgwick-william1765.html>). Unfortunately it has not been possible to prove a familial relationship between Penelope and Susanna; whilst the latter name was evidently a popular one in the 1750s and 1760s, Penelope was somewhat less common. A search of baptismal and christening records from the 1760s revealed just one Penelope Watts, the daughter of Robert and Phyllis Watts, baptised in Bristol on 1st May 1768 (England, Select Births & Christenings, 1538-1975 FHL file no. 1595986/item 3). None of the numerous individuals named Susanna Watts whose births were registered between the late 1750s and mid-1760s appears to have shared parents with these names. Further research is necessary to discover the nature (if any) of the connection between Penelope and Susanna Watts.

William Sedgwick was a native of the Kennington / Newington / Walworth area and may have been related to Francis Sedgwick of Albany Road, which runs through Camberwell from the south end of Walworth Road. Such a relationship might explain the proximity in the grave of Susanna's remains with those of William junior and Elizabeth Lee Sedgwick, who predeceased her by eleven and eight years respectively.

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APPENDIX 10 – OASIS FORM

OASIS ID: preconst1-180407

Project details

Project name	Elephant and Castle Leisure Centre
Short description of the project	An archaeological excavation was undertaken by Pre-Construct Archaeology Ltd. at the Elephant and Castle Leisure Centre between the 30th July 2012 and the 2nd of April 2013. The earliest deposits encountered above the natural gravels comprised silts and clays associated with transgressive marine episodes from either the Thames itself or a relict channel. A layer of peat was also revealed and is believed to be mid-late Bronze Age in date. The earliest feature encountered was a large ditch which was backfilled between the late 18th and mid 19th century with refuse from local industries. A large red brick wall was also erected as the cemetery of St Mary Newington was expanded. During the mid 19th century the ditch was backfilled, the wall was partially removed and a large brick structure consisting of 25 crypts was built as the churchyard was again expanded. Between 1834/5 - 1854 the new area of open ground was then used as a cemetery and c. 300 burials were removed during the excavation process. In 1871 a decision was made to move St Mary's in order to widen the road and the church was demolished. A new church was consecrated in 1874 however, and the footings of St Gabriel's were partially revealed during the excavation. Properties fronting onto St Gabriel Street were also revealed.
Project dates	Start: 30-07-2012 End: 02-04-2013
Previous/future work	Yes / Not known
Any associated project reference codes	SMC11 - Sitecode
Type of project	Recording project
Site status	Local Authority Designated Archaeological Area
Current Land use	Community Service 2 - Leisure and recreational buildings
Monument type	DITCH Post Medieval

Monument type	WALL Post Medieval
Monument type	CRYPT Post Medieval
Monument type	CEMETERY Post Medieval
Monument type	CHURCH Post Medieval
Monument type	HOUSE Post Medieval
Significant Finds	HUMAN REMAINS Post Medieval
Significant Finds	POTTERY Post Medieval
Significant Finds	ANIMAL BONE Post Medieval
Significant Finds	CLAY PIPE Post Medieval
Significant Finds	COFFIN FITTINGS Post Medieval
Significant Finds	RING Post Medieval
Significant Finds	COMB Post Medieval
Significant Finds	CRUCIFIX Post Medieval
Significant Finds	TOKEN Post Medieval
Investigation type	"Full excavation"
Prompt	Direction from Local Planning Authority - PPS
Prompt	National Planning Policy Framework - NPPF

Project location

Country England

Site location	GREATER LONDON SOUTHWARK SOUTHWARK Elephant and Castle Leisure Centre
Postcode	SE11 4TW
Study area	339.22 Square metres
Site coordinates	TQ 3184 7887 51.4928822707 -0.100671288194 51 29 34 N 000 06 02 W Point
Height OD / Depth	Min: -0.33m Max: -0.06m

Project creators

Name of Organisation	Pre-Construct Archaeology Ltd.
Project brief originator	Pre-Construct Archaeology Ltd
Project design originator	Gary Brown
Project director/manager	Gary Brown and Peter Moore
Project supervisor	Alexis Haslam
Type of sponsor/funding body	Southwark Council

Project archives

Physical Archive recipient	LAARC
Physical Contents	"Animal Bones","Ceramics","Environmental","Glass","Human Bones","Metal","Worked stone/lithics"

Digital Archive recipient	LAARC
Digital Contents	"Animal Bones", "Ceramics", "Environmental", "Glass", "Human Bones", "Metal", "Stratigraphic", "Survey", "Worked stone/lithics"
Digital Media available	"Database", "Spreadsheets", "Survey", "Text"
Paper Archive recipient	LAARC
Paper Contents	"Animal Bones", "Ceramics", "Environmental", "Glass", "Human Bones", "Metal", "Stratigraphic", "Survey", "Worked stone/lithics"
Paper Media available	"Contextsheet", "Correspondence", "Diary", "Matrices", "Photograph", "Plan", "Report", "Section", "Survey", "Unpublished Text"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	An archaeological excavation on land at the Elephant and Castle Leisure Centre, London Borough of Southwark, SE11 4TW
Author(s)/Editor(s)	Haslam, A./Meddens, F.
Date	2014
Issuer or publisher	Pre-Construct Archaeology Ltd.
Place of issue or publication	Brockley

Entered by	Alexis Haslam (ahaslam@pre-construct.com)
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Entered on 2 JUNE 2014

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