

Colchester Archaeological Trust



**CAT Report 2187
issued December 2025**

**Archaeological investigations at
St Nicholas' Square, Colchester, Essex, CO1 1LB:
October 2023 – June 2025**



**CAT project ref.: 2021/06d
CHER code: ECC4903**

**Archaeological investigations at
St Nicholas' Square, Colchester, Essex, CO1 1LB:
October 2023 – June 2025**

NGR: TL 99787 25178 (centre)

**Planning district: Colchester
Planning ref.: 210269**

**CAT project ref.: 2021/06d
CAT Report 2187**

**CHER code: ECC4903
OASIS id: colchest3-425805**

**Report prepared by Laura Pooley
With contributions by Megan Beale, Dr Kevin Hayward,
Dr Matthew Loughton, Bronagh Rae-Quinn and Alec Wade**

**Fieldwork by Ben Holloway, Nigel Rayer and Alec Wade
with Megan Beale, Ziya Eksen, Harvey Furniss,
Tabitha Lawrence, Robin Mathieson, Matt Perou,
Xander Smith, Sarah Veasey and Ollie Windridge**

Commissioned by Colchester Amphora Trading Ltd

Prepared by:	Laura Pooley MCIfA	Post-Excavation Manager
Reviewed and approved by:	Howard Brooks MCIfA	Senior Associate
Issued:	01/12/2025	
Amended and reissued:	07/04/2026	

Colchester Archaeological Trust

Roman Circus House,
Roman Circus Walk,
Colchester,
Essex CO2 7GZ

tel.: 01206 501785

email: services@catuk.org

web: <https://catuk.org/>

Contents

1	Summary	1
2	Introduction	2
3	Archaeological background	3
4	Aims	5
5	Results	6
5.1	Site diary	6
5.2	St Nicholas Churchyard	32
6	Human remains <i>by Megan Beale</i>	55
7	Finds	70
7.1	Pottery and ceramic building material <i>by Dr Matthew Loughton</i>	70
7.2	Small finds <i>by Laura Pooley</i>	90
7.3	Coffin furniture <i>by Laura Pooley</i>	93
7.4	Clay tobacco pipe, glass and oyster shell <i>by Laura Pooley</i>	97
7.5	Lithics <i>by Tabitha Lawrence</i>	100
7.6	Roman marble <i>by Dr Kevin Hayward</i>	101
7.7	Animal bone <i>by Alec Wade</i>	111
7.8	Environmental assessment <i>by Bronagh Rae-Quinn</i>	115
8	Discussion	116
9	Acknowledgements	123
10	References	124
11	Abbreviations and glossary	130
12	Contents of archive	130
13	Archive deposition	130
Appendix 1	Context list	132
Appendix 2	Articulated skeletal remains – assessment summary	147
Appendix 3	Disarticulated skeletal remains – assessment summary	149
Appendix 4	Raw data for all articulated skeletal remains	153
Appendix 5a	Weight (g) and fragment count for the articulated human bone	156
Appendix 5b	Weight (g) and fragment count for the disarticulated human bone	160
Appendix 6	Pottery list	164
Appendix 7	CBM list	175
Appendix 8	Small finds list	186
Appendix 9	Stone catalogue – geological character and source	191
Appendix 10	Animal bone data	199

Figures

after p212

EAH Summary sheet

CAT WSI

OASIS Data Collection Form

List of photographs, tables, charts, maps and figures

Cover: St Nicholas Square ground reduction, looking east.

Photograph 1	Trial-hole 2, looking west.	7
Photograph 2	Trial-hole 7 with the probable vaulted brick burial chamber visible to the bottom right, looking west.	7
Photograph 3	Ground reduction area showing the remains of burial chambers F2 and F3 in foreground and F13/F14 in background, looking north-east.	9
Photograph 4	Ground reduction around the tree, looking south.	9
Photograph 5	South-west corner of tree-pit 2, looking west. Inhumation burial F28 and patch of mortared septaria F29 are in the foreground with floor/bedding layer L11 beyond. Metalled surface F25 can be seen in a strip to the left of the photograph.	11
Photograph 6	Metalled surface F25, looking west.	12
Photograph 7	Tree-pit 2, looking west-north-west.	12
Photograph 8	Tree-pit 1, looking north-east.	14
Photograph 9	Service trench, looking north-west.	14
Photograph 10	Example of a deep service trench, looking south-east.	15
Photograph 11	Example of a shallow service trench, looking north-east.	15
Photograph 12	Robber trench F46 in the inspection chamber, looking north.	17
Photograph 13	Top of wall foundation F47 in the inspection chamber, looking south.	18
Photograph 14	Photograph showing the partial removal of wall foundation F47 in the base inspection chamber, looking west.	18
Photograph 15	Eastern section of the inspection chamber – F25, L11, L13, L15, L17, L18, L19 – looking west.	19
Photograph 16	Western section of the inspection chamber – F25, L11, L13, L15, L20, L21 – looking east.	20
Photograph 17	Gully pit 1 showing Roman floor F52b, looking east.	23
Photograph 18	Service pit to the west of gully pit 2, looking north-north-east.	23
Photograph 19	Service trench to south of St Nicholas House, fully excavated, looking south.	24
Photograph 20	St Nicholas Street ground reduction, at north end looking south.	24
Photograph 21	Ground reduction along Culver Street East, looking south-south-east.	26
Photograph 22	Ground reduction on the corner of Culver Street East and St Nicholas Street, looking north.	27
Photograph 23	Deep services showing F25, L12, L25 and L27, looking south.	27
Photograph 24	Deep services associated with brick manhole/drain, looking south-east.	28
Photograph 25	Deep service trench to south of gully pit 6, looking south-south-east.	28

Photograph 26	Outline of robber trenches F77 and F78, looking south.	29
Photograph 27	Long Wyre Street reduction, looking north.	30
Photograph 28	Long Wyre Street reduction showing F78 and F3 along with L62, L65, L66 and L67, looking east.	31
Photograph 29	Far east end of Culver Street East, looking north-east.	31
Photograph 30	Burial chamber F2, looking west, showing brick structure over the slabs.	36
Photograph 31	Burial chamber F2 with slabs lifted revealing coffin beneath, looking east. An iron coffin plaque is visible on top of the coffin.	36
Photograph 32	Burial chamber F3, looking south-south-west.	37
Photograph 33	Burial chamber F10, looking west, showing brick structure above slabs.	38
Photograph 34	Burial chamber F10 with slabs lifted revealing coffin beneath, looking west.	38
Photograph 35	Burial chamber F12 with slabs lifted, looking west.	39
Photograph 36	Burial chamber F13/F14, looking north-west, showing brick structure above the slabs.	40
Photograph 37	Burial chamber F13/F14 with slabs lifted revealing coffin beneath, looking west.	40
Photograph 38	Burial chamber F16 with vaulted/barrelled roof, looking east.	41
Photograph 39	Burial chambers F10 and F16 after slab lifted/roof removed and backfilled with stone, looking west.	41
Photograph 40	Burial chamber F20, looking west.	42
Photograph 41	Burial chamber F20 with slab lifted but sides have collapsed, looking west.	42
Photograph 42	Burial chamber F21 with one slab lifted, looking west.	43
Photograph 43	Burial chamber F31 with slabs lifted showing coffin beneath, looking east.	43
Photograph 44	Burial chambers F23 (back) and F24 (front), looking north-west.	44
Photograph 45	Burial chambers F50 (front) and F51 (back, shown by the blue arrow), looking east.	45
Photograph 46	Burial chamber F69, looking west.	46
Photograph 47	Burial chamber F72, looking north.	47
Photograph 48	Burial structure F48, looking east-north-east.	48
Photograph 49	Inhumation burial F30, looking north.	50
Photograph 50	Inhumation burial F39 with partial F42 visible and disarticulated skull (83), looking north.	50
Photograph 51	Inhumation burial F55, looking south-west.	52
Photograph 52	Inhumation burials F63, F64 and F65, looking north.	53
Photograph 53	Edentulous maxilla from F33, superior view.	59
Photograph 54	Left tibial ulcer from F52a, lateral view.	60
Photograph 55	Healed right ulna fracture from F55, anterior view.	61
Photograph 56	Spina bifida from F39, affecting S1-S5, posterior view.	62
Photograph 57	Fused foot bones from L13, various views. Red dot indicates anterior direction.	67
Photograph 58	Saber shin from F37, lateral view.	68

Table 1	Age groups as per Buikstra & Ubelaker (1994).	56
Table 2	Summary of age-at-death by estimation of sex.	57
Table 3	Summary of the pottery and CBM.	70
Table 4	Roman pottery fabrics recorded.	70
Table 5	Summary of the Roman pottery.	71
Table 6	Roman pottery quantification via vessel form.	72
Table 7	Quantities of Late Iron Age-Roman pottery from specific contexts.	74
Table 8	Post-Roman pottery fabrics recorded.	76
Table 9	Summary of the post-Roman pottery.	76
Table 10	Post-Roman pottery quantification via vessel form.	77
Table 11	Quantities of post-Roman pottery from specific contexts.	78
Table 12	Building material by period and type.	80
Table 13	Quantities of CBM from specific contexts.	80
Table 14	Quantities of Roman CBM from specific contexts.	82
Table 15	Summary of the Roman tegulae LCA's.	83
Table 16	Quantities of Roman flue-tile from specific contexts.	84
Table 17	Quantities of Roman daub bricks from specific contexts.	84
Table 18	Quantities of Roman tesserae from specific contexts.	84
Table 19	Quantities of Roman wall-plaster from specific contexts.	85
Table 20	Summary of the painted wall-plaster.	85
Table 21	Quantities of medieval/post-medieval peg-tile from specific contexts.	86
Table 22	Quantities of post-Roman brick specific contexts.	86
Table 23	Ceramic spot dates for the individual contexts.	86
Table 24	Coffin furniture listed by context.	94
Table 25	The clay tobacco pipe, glass and oyster shell listed by context.	97
Table 26	Lithics listed by context.	100
Table 27	Taxon in the securely dated Roman and medieval contexts by number of pieces.	111
Table 28	Cut animal bone from L33.	113
Table 29	Cut animal bone from L58/L59.	113
Table 30	Environmental results.	115
Chart 1	Completeness of articulated remains.	57
Chart 2	Stature estimations by estimated sex for articulated remains.	58
Chart 3	Estimated age group and estimated sex for disarticulated remains.	63
Chart 4	Stature estimations for disarticulated remains by estimated sex.	64
Chart 5	Pie Chart showing proportion (by number of pieces) of cut stone rock type.	102
Chart 6	Pie Chart showing proportion (by weight %) of cut stone rock type.	102
Chart 7	Taxon by number of pieces for the post-medieval and poorly dated contexts.	114

Map 1	Chapman and André map of 1777, showing the extent of the medieval church and churchyard before the 1870s rebuild.	116
Map 2	1st edition 6-inch OS map of 1896, showing the extent of the church and churchyard after the 1870s rebuild.	117
Image 1	Image showing the ruins of the medieval church and part of the churchyard, by Thomas Hosmer Shepherd (1793–1864).	117
Image 2	Poor quality copy of a 19th-century image showing the ruins of the medieval church and part of the churchyard, downloaded from https://www.stnicholascenter.org/gazetteer/1029?photo=5	118
Image 3	The rebuilt Victorian church, downloaded from https://www.stnicholascenter.org/gazetteer/1029?photo=5	118
Fig 1	Site location.	
Fig 2	Combined plan of all the groundworks.	
Fig 3	Results: Trial-holes 1 and 2.	
Fig 4	Results: Trial-hole 7.	
Fig 5	Results: St Nicholas Square ground reduction phase 1.	
Fig 6	Results: Tree-pit 2.	
Fig 7	Results: Tree-pit 1, St Nicholas Square ground reduction phase 2, services and the inspection chamber.	
Fig 8	Results: Service trench and pit to the south of St Nicholas House, services through St Nicholas Street and the St Nicholas Street ground reduction.	
Fig 9	Results: Culver Street East ground reduction around the inspection chamber.	
Fig 10	Results: Ground reduction on corner of Culver Street East and St Nicholas Street.	
Fig 11	Results: Long Wyre Street ground reduction.	
Fig 12	Results: far eastern end of the Culver Street East ground reduction.	
Fig 13	Combined plan of St Nicholas Churchyard.	
Fig 14	Combined plan of the Roman remains.	
Fig 15	Sections.	
Fig 16	Sections.	
Fig 17	Sections.	
Fig 18	Sections.	
Fig 19	Burial plans.	
Fig 20	Burial plans.	
Fig 21	Burial plans.	
Fig 22	Burial plans.	
Fig 23	Burial plans.	
Fig 24	Burial plans.	
Fig 25	Burial plans.	

- Fig 26 Burial plans.
- Fig 27 Burial plans.
- Fig 28 Roman pottery: Gallo-Belgic platter from L12 (1), Lezoux dish from L8 (2), Gauloise 4 amphora from L12 (3), Spanish Baetican Dressel 20 amphora from L12 (4), CAM 154 flagon from L27 (5), African Mauretania Dressel 30/Keay 1 amphora from L33 (6), CAM 532 jar from L33 (7), CAM ?299 jar from L33 (8) and a CAM 305B bowl from L33 (9).
- Fig 29 Roman pottery: CAM 268 jar from L33 (10) and grey ware base with an internal mortar deposit from L9 (11).
- Fig 30 Medieval cooking pots: Fabric F12A from F31 (12), F12B from F45 (13), and F12C from F35 (14). Post-medieval red earthenware vessels: dish from L8 (15) and dripping pan from L13 (16).
- Fig 31 Modern stoneware bottle/jar from L13 (17) and an unstratified fragment of Roman flue-tile with roller-stamp decoration (18).
- Fig 32 Small finds: Conjoined Roman finger-rings from L2 (1). A post-Roman button (2) and shoe buckle (3) from L2, a wig curler from L13 (4) and a ?tuning peg (5) from F62. Undated bone shaft from F38 (6) and a stone hone from F80 (7).
- Fig 33 Coffin furniture: Lead plaque from F30 (1).
- Fig 34 Coffin furniture: Iron coffin handles from L2 which are rounded in shape (2-8) and square in shape (9). Iron coffin grip plates and handles from F40 (10) and L13 (11).
- Fig 35 Native polychrome marbles: Purbeck marble opus sectile fragments: square (1) and triangle (2) from F38 and Purbeck marble (3a), Thasos (3b) rods and a Purbeck marble, green bed from L7 (4).
- Fig 36 Native polychrome marbles: Kimmeridge Dolostone opus sectile fragments from L10 (5) and F33 (6). Polychrome imports: Breccia corallina giallastra from F26 (7) and L2 (8), Cipollino verde from F26 (9a-c).
- Fig 37 Polychrome imports: Spart Porphyry from F25 (10), Giallo Rosso from L10 (11), Africano from L8 (12), Imperial Porphyry from F25 (13), plum coloured Belgian limestone from F7 (14), red and white probable Belgic marble from L8 (15), Thasos marble from L9 (16) and Pavonazzetto marble from F28 (17).

1 Summary

Archaeological investigations were carried out at St Nicholas Square, Colchester, Essex between October 2023 and June 2025 during groundworks for a new plaza. Located in the centre of the city, close to Colchester Castle, groundworks revealed significant archaeological remains. Groundworks consisted of trial-holes, widespread areas of ground reduction both in the square and surrounding roads, and the excavation of two tree-pits, a large inspection chamber, smaller manholes and numerous service trenches. The size, shape and depth of these groundworks varied widely. The primary method of investigation was archaeological monitoring and recording with targeted excavated occurring where archaeological remains were identified and where it was possible to do so.

The development site is located within St Nicholas' Churchyard. St Nicholas Church had medieval origins and was rebuilt at least twice before being demolished in 1955. A total of thirty-eight in situ burials were impacted by the St Nicholas Square groundworks with another three identified but not disturbed. There were fifteen burial chambers dating to the period c 1650-1850. Fourteen were single-width, brick-lined chambers that could potentially accommodate up to six coffins, and there was one probable double-width brick-lined chamber with barrelled roof. All burials associated with the chambers were left in situ and covered by the development. Twenty-three inhumation burials, where a single individual was buried straight into the ground, were at least partially excavated. Thirteen produced fragments of coffin furniture and date from the 17th century onwards.

The development site is also located within Insulas 29 and 30 of the Roman walled town. Investigation of the Roman remains was limited by the nature of the groundworks. The most significant discovery was a substantial north/south wall foundation that appears to be aligned with a foundation identified underneath the church when it was demolished. Together they form part of a sizable building in the north-east corner of Insula 29. Previous excavations in the area have also revealed a large building in the north-west corner of Insula 30, and six more robber trenches were identified (but not excavated) during these groundworks. Between Insulas 29 and 30, groundworks also revealed the remains of the metalled street surface.

Other significant Roman discoveries included Boudiccan demolition debris and the remains of a clay block wall and floor from the pre-Boudiccan colonia, two exquisite gold rings and ninety-eight pieces of marble, an assemblage which has been described as of national importance.

2 Introduction

This is the report for archaeological investigations carried out at by Colchester Archaeological Trust (CAT) at St Nicholas Square, Colchester, Essex (Fig 1) between the 30th October 2023 and 25th June 2025. Work was commissioned by Colchester Amphora Trading Ltd and was conducted during groundworks for the creation of a new plaza.

As the site lies within an area highlighted by the CHER as having a high potential for archaeological remains, an archaeological condition was recommended by the Colchester City Council Archaeological Advisor (CCCAA). The recommended archaeological condition was based on guidance given in the *National Planning Policy Framework* (MHCLG 2023).

All work took place in accordance with a *Brief for Archaeological Investigation at St Nicholas Square, Colchester*, written by the CCCAA (2021). A Written Scheme of Investigation (WSI) was prepared by CAT (2021) in response to the brief and agreed with the CCCAA in advance of the groundworks.

In addition to the project brief and WSI, all fieldwork and reporting was undertaken in accordance with:

- *Management of Research Projects in the Historic Environment (MoRPHE)* (Historic England 2015),
- Professional standards of the Chartered Institute for Archaeologists, including its *Code of Conduct* (CIfA 2020a-b, 2022, 2023a-b),
- East of England standards and frameworks published by East Anglian Archaeology (Brown & Glazebrook 2000, Gurney 2003, Medlycott 2011) and the recent review updates on <https://researchframeworks.org/eoe/>
- Relevant health and safety guidelines and requirements (CAT 2023, 2024 and 2025).

3 Archaeological background

The following archaeological background is based on extracts from CAT Report 1625, draws on the Colchester Archaeological Trust report archive and the Colchester Historic Environment Record (CHER/ECC/MCC numbers; accessible via Colchester Heritage Explorer (<https://colchesterheritage.co.uk/map>)).

The development site lies within churchyard (MCC407) of St Nicholas Church (MCC406). The church was originally 12th century in date, but was entirely rebuilt twice, once in the 14th century and again in the late 19th century. The church became redundant in 1952 and was demolished in 1955, with St Nicholas House and St Nicholas Square being built over the remains of the church and churchyard respectively. Limited archaeological excavations took place in 1955 on the site of the demolished church (Hull 1960). These excavations revealed remnants of pre-Boudiccan clay block buildings along with later Roman wall foundations for buildings in *insulas* 29 and 30 of walled town, as well as metalling from the dividing street. Excavation also revealed that the walls of the Victorian church had been built on top of the Roman wall foundations. As no medieval walls were found, it has been suggested that the medieval churches used upstanding Roman walls. As of 2023, all that was visible of the former churchyard in St Nicholas Square was two small, raised gardens where many of the gravestones had been gathered and erected. It was not clear from historical accounts how many burials, if any, had been cleared from the site. This soon became clear during an archaeological evaluation on the site in 2020 in advance of the current development (CAT Report 1625; ECC4586) when two inhumation burials, three burial chambers and two probable pits containing disarticulated bone were uncovered. Therefore, any groundworks associated with the current development had a high chance of encountering burials within the former churchyard.

Focussing on the Roman archaeology, the development site is located within the centre of the Roman walled town (MCC9314) where it straddles *insulas* (town blocks) 29 and 30 with a Roman street aligned north/south through the centre of it (Fig 1). The following is a summary:

Insula 29 – Archaeological evidence for *Insula* 29 from investigations and observations made as far back as 1849 was first summarised and published by Hull (1958) in *Roman Colchester*. This was summarised more recently by Gascoyne & Radford (2013). Remains include at least three Roman wall foundations on Culver Street East and a large (3ft thick) north/south foundation which ran the whole length of the 1925 Co-operative Society site. Excavations under St Nicholas Church in 1955 (Hull 1960) also revealed the remains of a substantial Roman building which ran south and west beyond the limits of excavation. The walls were faced with coursed septaria and tile, and the size and construction methods used led excavators to suggest that it could have been a public building. Sealed beneath was a layer of Boudiccan destruction debris made up of the remains of pre-Boudiccan clay block buildings.

Insula 30 – Archaeological evidence for *insula* 30 from investigations and observations made as far back as 1849 was first summarised and published by Hull (1958) in *Roman Colchester*. Thirteen years later, a reappraisal of the evidence was provided by Philip Crummy (Crummy 1971, 107- 111). This was again summarised by Gascoyne & Radford (2013) and by the current author in 2021 following excavations at 5-6 St Nicholas Street & 60 Culver Street East (CAT Report 1614).

The following is taken from CAT Report 1614 (for more detailed information on the numbers in brackets refer to CAT Report 1614, 103-106 & fig 36):

‘... there were pre-Boudiccan structural remains within the footprint of *Insula* 30. This includes burnt daub walls along Queen Street to the east (25), on the south side of Culver Street (14) and underneath St Nicholas Church (15). There were no *in situ* early Roman structural remains found during work at 11-14 Priory Walk (16) or 4-6 Long Wyre Street (21) but both sites were covered in a layer of burnt daub. The remains from Priory Walk were even interpreted as the destruction of partially built structures at the time of the Boudiccan revolt. To this picture we can now add the presence of at least one early Roman building on 5-6 St Nicholas Street with wattle and daub walls, a tiled roof and sandy-clay floors. That the walls had been both plastered and painted, and the windows glazed, may indicate that the building was of relatively high status. Located to the south of the Temple of Claudius, this could be a public building, but too little of it was revealed to determine form or function.

That the pre-Boudiccan buildings were replaced by large post-Boudiccan masonry structures is a trend across the *Insula* (current site, 15, 16, 21, 25). In places the walls are substantial (current site, 16, 19, 20, 21, 23) and orientated to respect the street alignment, although the remains around Priory Walk (16) do shift orientation. It is impossible to determine how many structures are present. In his analysis for *CAR 3*, Philip Crummy stated that many of the remains identified within *Insula* 30 were too large to have been private houses and that the remains represent at least one major public building. Unfortunately, although excavations at 5-6 St Nicholas Street have produced more substantial building remains little else was revealed to determine the type or plan of the structure.’

Specifically, excavations under St Nicholas Church in 1955 (Hull 1960) revealed a large wall foundation trench, 2m wide, aligned north/south along the edge of the *insula* but with no structural remains surviving. Beneath were pre-Boudiccan timber and clay block building remains.

The Geology of Britain viewer (1:50,000 scale¹) indicates that the bedrock geology of the site comprises Thames Group (clay, silt, and sand), with superficial deposits of cover sands (clay, silt, and sand).

¹ British Geological Survey – <https://geologyviewer.bgs.ac.uk/?>

4 Aim

The aim of the archaeological investigations was to identify, excavate and record any archaeological remains revealed during the works, with particular emphasis on the safe removal of any burials due to be impacted by the groundworks.

5 Results

The following section is divided into two:

- Section 5.1 – Site Diary. This section provides a full account of all the groundworks carried out under archaeological supervision with descriptions of what was found.
- Section 5.2 – St Nicholas Churchyard. This section provides a more detailed account of the burial features from St Nicholas Churchyard. Photographs and plans of the burial features can be found in this section of the report and not in Section 5.1.

A full context list can be found in Appendix 1 with a combined plan of all groundworks shown in Fig 2.

5.1 Site Diary

5.1.1 October-November 2023 – Trial-holes 1, 2 and 7 (Figs 3-4)

Monitoring of three trial-holes (TH1, TH2, TH7) to confirm location, depth and type of services.

It is not known if trial-holes TH3-TH6 and TH8 were excavated. If they were, they were not monitored.

Trial-hole 1 – 2.6m long by 0.8m wide, excavated to a depth of 0.8m. Excavated through paving slabs (L1, 0.15m thick) and modern made-ground (L2, 0.65m thick), with undisturbed ground visible at the base of the trench.

Trial-hole 2 – 7m long by 0.4m wide, excavated to a depth of 0.8m. Excavated through paving slabs (L1, 0.15m thick) and modern made-ground (L2, 0.65m thick), with undisturbed ground visible at the base of the trench.

Trial-hole 7 – 6.7m long, northern 2.3m was 0.8m wide, remaining 4.4m was 0.6m wide, excavated to depth of 0.8-1.2m. The far north of the trial-hole was excavated through paving slabs (L1, 0.15m thick) and made-ground (L2, 0.65m thick). Inhumation burial F1 was partially exposed at a depth of 0.8m below current ground level (bcgl) which had been cut into burial soil. Also identified was part of a brick structure. Originally identified as a possible remnant of wall foundation associated with the churchyard it was not given a feature number. However, evidence would now suggest that it was probably part of a vaulted brick burial chamber. The rest of the trial-hole was excavated through the modern tarmac road surface and crush beneath (L3/L4, 0.85-1.1m thick), with some undisturbed ground visible at the base of the trench (L5).



Photograph 1 Trial-hole 2, looking west.



Photograph 2 Trial-hole 7 with the probable vaulted brick burial chamber visible to the bottom right, looking west.

5.1.2 July 2024 – St Nicholas Square ground reduction phase 1 (Fig 5)

After the removal of the modern brick walls/surfaces of St Nicholas Square, groundworks consisted of the level reduction of an area approximately 27m east/west by 9m north/south, to a depth of between 0.2-0.4m through graveyard soil L2. Funerary remains were found close to current ground level, there were ten brick burial chambers, the top of an inhumation burial and base fragments from nine gravestones which were probably removed in 1955. Disarticulated human remains were recovered throughout L2 and scattered throughout the backfill of many of the features.

In almost all cases, the tops of the burial chambers and the stone slabs sealing them were removed. Photographs were taken of the inside of the chambers where safe to do so, but some of the brick linings had started to collapse. None of the interred burials were excavated or lifted. The chambers were then backfilled with sand and stone, sealed and are now preserved beneath the development.

- Brick burial chambers – F2, F3, F10, F12, F13/F14, F16, F20, F21, F23, F24 – Burials left *in situ*, chambers safely backfilled and reburied. Chamber F13/F14 was associated with L6, a spread of construction debris or metalling associated with the burial chamber/monument above. Chamber F16 was vaulted. Chamber F23 was originally recorded in the 2020 evaluation as F1, with chamber F24 recorded as F3.
- Inhumation burial – F15 – Not excavated, probably associated with gravestone F7.
- Fragments of gravestones – F4, F5, F6, F7, F8, F9, F17, F18, F19 – Kept by the developers with rest of the gravestones from the site.

Other features recorded were brick soakaway F11 which had been backfilled in the 20th century, probably at the same time as the demolition of the church in 1955, and modern cut feature F22.

Demolition of the brick wall around the tree to the west of the square did not impact any archaeological remains.



Photograph 3 Ground reduction area showing the remains of burial chambers F2 and F3 in foreground and F13/F14 in background, looking north-east.



Photograph 4 Ground reduction around the tree, looking south.

5.1.3 July 2024 – Tree-pit 2 (Fig 6, Fig 15 sx1)

Tree-pit 2 (10.1m by 4.1m) was stripped of modern layers. A central baulk was left but the rest of the area was both hand- and machine-excavated to a depth of 1m. Numerous modern services had been cut across the site.

Six inhumation burials (F27, F28, F30, F33, F37 and F38) cut layers of graveyard soil L7, L8 and L10. Layer L7 (0.15m thick) sealed L8 (c 0.57m thick) to the north of F25 (see below) and L10 (up to 0.3m thick) to the south of F25. All of the burials were excavated. A lead plaque associated with inhumation F30 identifies the individual as 14-year-old Sophia Ranson who died in 1824.

Post-medieval east/west aligned metalled surface F25 covered most of the southern part of the tree-pit (although severely truncated by services) and was recorded continuing to the east in later phases of groundworks. Sealing medieval/post-medieval features, it is associated with F29, a patch of mortared septaria, Roman tile and small rounded stones that probably represents a phase of repair. The surface could represent an early phase of Culver Street East or a path within/around the churchyard. Inhumation burial F28 was identified within the line of metalling F25. Significant truncation around F28 meant that its relationship with the metalled surface could not be readily established, but it is more likely that the burial predates the surface. This would mean that either the laying of the metalled surface reduced the size of the churchyard or, as this was the only burial identified within the line of the metalling, that the burial was already an outlier to the churchyard.

Pit F26 produced a fragment of clay tobacco pipe, and medieval pottery was recovered from robber trench F34 and pits F31, F35 and F36. Pit F32 is probably also of a similar date. Robber trench F34 was not excavated to determine if any wall foundations survived beneath.

Beneath the graveyard soils was accumulation layer L9. It sealed mortar spread L11, a hard white lime mortar with common small, rounded stones, which was bedded on a layer of tightly packed septaria and occasional pieces of CBM in a weak mortar. The date of L11 could not be established at the time of excavation, but subsequent groundworks suggest that it is probably associated with metalled surface F25. Beneath L11 was Roman demolition layer L12, consisting of what appeared to be a mixed deposit of demolition material.



Photograph 5 South-west corner of tree-pit 2, looking west. Inhumation burial F28 and patch of mortared septaria F29 are in the foreground with floor/bedding layer L11 beyond. Metalled surface F25 can be seen in a strip to the left of the photograph.



Photograph 6 Metallised surface F25, looking west.



Photograph 7 Tree-pit 2, looking west-north-west.

5.1.4 July-September 2024 – Tree-pit 1, St Nicholas Square ground reductions phase 2 and services (Fig 7; Fig 15 sx2)

Tree-pit 1 – An area measuring approximately 7.2m east/west by 4.8m north/south was reduced by c 0.8m through graveyard soil (L13). Aside from deep inhumation burial F15 (the skeleton of which was not impacted by the ground reduction), no other burials were identified in this area.

St Nicholas Square ground reduction phase 2 – Additional ground reductions to the north of tree-pit 2 revealed inhumation burials F40 (truncated by burial chamber F20) and F41. On the northern boundary of the site, burial chamber F50 was also revealed along with bricks F51 which possibly formed part of another burial chamber. Neither of these burial chambers were excavated and have been preserved beneath the development.

Services – Service trenches and pits for manholes cut across a lot of the site. Monitoring conditions were not ideal and the groundworks proved difficult to record. The service trenches were on average about 0.5m wide and could be shallow at 0.3-0.4m or deep at 1.2m. The pits for manholes varied more in size but were typically square/rectangular and ranged from 0.9m to 1.7m deep. They were mostly cut through graveyard soil, although deeper excavations did reveal Roman horizons beneath.

- A pit for a manhole to the west of burial chamber F13/F14 revealed two partial inhumations, F39 and F42, which had been cut by the chamber. They were both associated with a lot of disarticulated bone.
- The eastern brick wall of burial chamber F3 was partially removed by one service trench.
- A shallow service trench to the north of tree-pit 2 revealed the skulls of inhumation burials F43 and F44. The skull of F43 was lifted, F44 was left *in situ*.
- A service trench in the northeastern corner of the site revealed:
 - 1) Partial inhumation burial F45.
 - 2) Structure F48 (Fig 15 sx2). It does appear to be cut into graveyard soil L13 and is aligned east/west, but rather than brick, it is made of septaria blocks and Roman CBM in a lime mortar (although there are post-medieval bricks in the backfill around the structure). It is probably part of an early burial monument.
 - 3) Undated accumulation layers L28 (0.07m thick), L29 (0.1m thick) and L30 (>0.1m thick).



Photograph 8 Tree-pit 1, looking north-east.



Photograph 9 Service trench, looking north-west.



Photograph 10 Example of a deep service trench, looking south-east.



Photograph 11 Example of a shallow service trench, looking north-east.

5.1.5 September 2024 – The inspection chamber (Fig 7, Fig 16 sx3-6)

An area measuring 3.5m east/west and 3.3m north/south was excavated to a depth of 2.5-2.6m (base of the pit measured 3.2m east/west by 2.2m north/south). The chamber was excavated by machine under archaeological supervision, with controlled access provided to enable deposits to be cleaned, labelled, and recorded. Roman-period stratigraphy at the base of the sequence was recorded at the eastern and western edges of the chamber pit (Fig 16 sx3 & sx5). Stratigraphy was also recorded at the northern edge prior to the installation of a trench shoring box (Fig 16 sx4). The trench shoring box was subsequently installed to ensure safe access in accordance with health and safety requirements, constraining access to the northern and southern edges thereafter. Recording and interpretation of stratigraphy was further complicated by the presence of substantial modern services, particularly at the northern and southern edges. These constraints limited the extent and continuity of observable deposits and reduced opportunities for full stratigraphic correlation across the excavation. In light of the methodological, safety, and site-specific constraints outlined above, the interpretations presented below should be regarded as necessarily provisional. They are based on a partial stratigraphic record and are limited to deposits that could be safely accessed and observed. Any conclusions drawn may therefore require revision should further archaeological investigation or mitigation be undertaken at the site in the future.

Sealed beneath modern tarmac and crush (0.4m thick) was post-medieval metallised surface F25 (0.42-0.47m thick). Sealed by F25 and aligned north/south through the centre of the pit, was medieval robber trench F46 which sealed Roman wall foundation F47 (Fig 16 sx4). Constructed from tightly packed septaria blocks in a white mortar, the foundation was large at 1.15m wide and over 0.85m deep.

Horizons sealed beneath F25 to the west of F46/F47 were (Fig 16 sx3), from top to bottom:

- Mortar spread L24 (c 0.05m thick), could be Roman, post-Roman or possibly the base for post-medieval metallised surface F25.
- Demolition debris L12 (c 0.5m thick).
- Accumulation layer L15 (c 0.07-0.15m thick).
- Demolition debris L17 (c 0.15m thick).
- Demolition debris L19 (possibly Boudiccan destruction debris) (c 0.85m thick), including clay lens L18.

Horizons sealed beneath F25 to the east of F46/F47 were (Fig 16 sx5), from top to bottom:

- Mortar spread L23 (c 0.13m thick), could be Roman, post-Roman or possibly the base for post-medieval metallised surface F25.
- Demolition debris L12 (c 0.32m thick).
- Accumulation layer L15 (c 0.05-0.1m thick).
- Demolition debris L17 (c 0.32-0.35m thick).

- Demolition debris L19 (c 0.17m thick).
- Accumulation layer L22 (0.07-0.11m thick).
- Street metalling L20 (0.05-0.06m thick).
- Street metalling L21 (0.55-0.6m thick).

A service trench to the south-east of the inspection chamber revealed (Fig 16 sx6), from top to bottom:

- Layers of modern tarmac and crush (c 0.45-0.5m thick)
- Post-medieval metallated surface F25 (c 0.52-0.7m thick) cut by ?pit/ditch F49 (seen in section only, 1.0m wide by 0.78m deep).
- Demolition debris L12 (c 0.12-0.25m thick).
- Levelling layer L25 (c 0.1-0.2m thick)
- Metalling L26 (c 0.15-0.3m thick)
- Demolition layer L27 (c 0.23->0.35m thick)
- Street metalling L20 (0.05-0.1m thick)
- Street metalling L21 (>0.5m thick)



Photograph 12 Robber trench F46 in the inspection chamber, looking north.



Photograph 13 Top of wall foundation F47 in the inspection chamber, looking south.



Photograph 14 Photograph showing the partial removal of wall foundation F47 in the base inspection chamber, looking west.



Photograph 15 Eastern section of the inspection chamber – F25, L11, L13, L15, L17, L18, L19 – looking west.



Photograph 16 Western section of the inspection chamber – F25, L11, L13, L15, L20, L21 – looking east.

5.1.6 January 2025 (Fig 8; Fig 16 sx7; Fig 17 sx8-9)

Service trenches

Additional reduction to a service trench to the south of St Nicholas House revealed inhumation burial F52a.

Service trenches beneath St Nicholas Street

Three gully pits, a service pit and associated drainage gullies (c 9m long, 0.3-0.6m wide and c 0.5m deep) were excavated through St Nicholas Street.

Gully pit 1 (Fig 16 sx7) – Measuring 1.3m by 1.3m and 1.55m deep, the pit was hand-excavated from F52b onwards. Horizons were, from top to bottom:

- L31 – modern sub-base under tarmac road (c 0.35m thick)
- L32 – ?dark earth deposit, post-Roman (c 0.55-0.6m thick)
- L33 – late Roman/early post-Roman demolition horizon (c 0.15-0.21m thick)
- F52b – Roman floor (c 0.12-0.15m thick)
- L35a (duplicate number) – possible Roman demolition debris or clay base for F52b (0.05-0.1m thick)
- F54 – Roman clay block wall, probably in situ (>0.15m wide and >0.28m thick)
- L36a (duplicate number) – possible Roman floor with layer of occupation debris on the surface (0.08->0.22m thick)
- L37a (duplicate number) – clay layer, possibly part of L36 or an earlier floor/wall (>0.2m thick)

The trench between gully pits 1 and 2 was 9m long, 0.4-0.66m wide and c 0.5m deep and excavated through L31 and L32.

Gully pit 2 – The pit measured 1.3m by 1.3m and 1.2-1.3m deep. Modern feature F53 (sewer easement) was recorded through most of the pit. At the base was L34, possible Roman clay demolition debris (identified at about the same depth as L35a in gully pit 1).

The monitored section of trench south of gully pit 2 totalled 10.5m long, was 0.35m and 0.5-0.7m wide and c 0.5m deep. At c 1m deep was a layer of Roman demolition debris which sealed another layer of Roman demolition debris, possibly dating to the Boudiccan period (L46, identified at 1.1-1.3m deep, 0.2m thick).

Service pit to west of gully pit 2 (Fig 17 sx8) – The pit measured 2.4m by 1.7m and was 1m deep. It was machine-excavated with all contexts recorded either in section or in the base of the pit. Horizons were, from top to bottom:

- L40 – Modern layers (c 0.55-0.65m thick)
- L38 – ?late Roman/post-Roman demolition (c 0.12-0.25m thick)
- L45 – demolition debris (mortar) (c 0.01-0.04m thick)
- L39 – possible bedding layer for a Roman floor, crushed op sig fragments (0.08-0.12m thick)
- L42 – Roman levelling layer (>0.15m thick)
- L43 – unidentified layer at base of trench.
- Layers L38, L39 and L42 had been cut by a backfilled robber trench (L41 seals F58, but both are probably part of the robber trench). Robber trench F58 was recorded for a distance of approximately 1m, at 0.3m wide, and was aligned north/south before turning east/west.
- Pit(s) F59 was a large feature covering most of the pit. It appears to be truncated by robber trench L41/F58.

Gully pit 3 – Measuring 1.3m by 1.3m and 1.3m deep, modern backfill sealed Roman demolition debris L46. Possibly dating to the Boudiccan period this was identified at a depth of 1.1-1.3m.

The trench between gully pits 3 and 6 (see below) was 6.5m long and c 0.5m wide. It was not monitored.

Service pit to the south of St Nicholas House (Fig 17 sx9) – The service pit was approximately 1.05m by 0.9m and 1.1m deep. It was machine-excavated through concrete and graveyard soils (L35b and L37b), and then hand-excavated once inhumation burials were identified at c 0.7m bcgl. Inhumation burials F55 and F56 were excavated, possible inhumation burial F57 was left *in situ*. Unidentified cut feature F60 was recorded in section. At the base of the trench were possible Roman demolition/levelling layers L36b and L44. The depth of the associated service trench was not recorded but it was probably excavated through graveyard soil only.

St Nicholas Street ground reduction – A large area of c 22m north/south by 4m east/west was stripped of modern layers into ?dark earth L32, to a depth of c 0.75m. A possible medieval robber trench (F61) was identified at c 0.75m bcgl in the north-east corner of the road reduction area. It was aligned roughly east/west and turned 90 degrees to the south. It was not excavated to confirm the identification, as groundwork depths had been reached



Photograph 19 Service trench to south of St Nicholas House, fully excavated, looking south.



Photograph 20 St Nicholas Street ground reduction, at north end looking south.

5.1.7 March-April 2025 (Figs 9-10; Fig 17 sx10)

Culver Street East junction with St Nicholas Street, ground reduction

The reduction of Culver Street East covered an area measuring c 13m east/west by 8m north/south. Ground reduction on the corner of Culver Street East and St Nicholas Street covered an area measuring c 12m east/west and 13.5m north/south. Both were excavated to a depth of c 0.75m

A series of post-medieval/modern layers (L50) sealed the patchy remains of a post-medieval east/west aligned metalled surface (L48, L49, L52) which is part of the same metalled surface as F25 identified to the west in Tree-pit 2. To the south-west and beneath L49 was a post-medieval dump/levelling layer (L47).

Partial inhumation burials F63, F64, F65, F67, F71, F73 and F74 were excavated. Burial chamber F69 was planned but not excavated. A very small section of burial chamber F72 was also revealed. Both chambers have been preserved beneath the development. Other recorded features/layers of note include a dump of disturbed human bone (F70), two unidentified cut features that were not excavated (F62 and F68), and a patch of what looked like redeposited Roman demolition material (L51).

East/west deep services (4.5m by 1.4m and 1.4m deep) – Deep excavations occurred on the southern edge of the road reduction area to connect to the existing brick drain/manhole. These were difficult to access and record but revealed layers initially identified in the inspection chamber. These horizons were, from top to bottom (depths not recorded, see Inspection chamber above):

- Post-medieval metalled surface F25
- Demolition debris L12
- Levelling layer L25
- Metalling L26
- Demolition layer L27

North/south deep services (5.3m by 1.95m and 1.4m deep) (Fig 17 sx10) & **Gully pit 6** (1.3m by 1.2m and 2.5m deep) – Deep excavations continued northwards from the brick drain/manhole into gully pit 6. A burst watermain in gully pit 6 meant that access was impossible to record any of the features/ layers.

Horizons were, from top to bottom:

- Post-medieval metalled surface F25 (0.1-0.4m thick)
- Metalling / metalled surface F53 (0.07-0.34m thick)
- Mortar layer L54 (0.03-0.1m thick)
- Made-ground/levelling L55 (0.08-0.14m thick)
- Levelling L56 (0.22-0.42m thick)
- Floor layers L57 (0.11-0.31m thick), at least four phases of floor.

- Boudican demolition debris L58 (0.4m+ thick) with dirty sand lens L59.

There were two deep robber trenches on a similar alignment. Robber trench F75 was aligned north/south with F76 at more of a north-north-west/south-south-east angle. The unfortunate circumstances of discovery (ie the burst water main in the gully pit, truncation of modern services over F76, and the act of robbing in itself) may allow for the slight misalignment, and the two robber trenches are probably part of the same north/south robber trench. Neither robber trench was excavated to its base to determine if any *in situ* foundation had survived. It is highly likely that the original Roman walls, now represented by the robber trenches, were associated with Roman floor layers L57.

Gully pit 4 (1.3m by 1.3m and 1.3m deep) – Modern backfill sealed Roman demolition debris. Possibly dating to the Boudiccan period this was identified at a depth of 1.1-1.3m.

Gully pit 5 (1.3m by 1.3m and 1m deep) – Cut through graveyard soil L60.



Photograph 21 Ground reduction along Culver Street East, looking south-south-east.



Photograph 22 Ground reduction on the corner of Culver Street East and St Nicholas Street, looking north.



Photograph 23 Deep services showing F25, L12, L25 and L27, looking south.



Photograph 24 Deep services associated with brick manhole/drain, looking south-east.



Photograph 25 Deep service trench to south of gully pit 6, looking south-south-east.

5.1.8 May-June 2025 (Figs 11-12, Fig 18 sx11)

Long Wyre Street ground reduction (Fig 11, Fig 18 sx11)

An area c 15m long by 4.5m wide was reduced to the top of modern services or to a depth of 0.75m where possible between the services. The whole area had been massively impacted by modern services with only small patches of undisturbed ground in between, making interpretation difficult.

To the south, modern layers (L61) sealed post-medieval accumulation/levelling (L62 and L65). A patch of *opus signinum* (L63) could be *in situ* Roman or redeposited, with probable Roman levelling/demolition layers at the base of the stripped area (L64 and L67). A possible medieval robber trench was planned but not excavated. The trench was L-shaped, aligned north/south (F77) and east/west (F78). Possible robber trench F79, seen in section only to the south of F77, is probably a continuation of F77. On the eastern edge of the area, Roman or post-Roman pits F81, F83 and F84 were also recorded in section.

Patches of metallurgy, F80, were present to the north of the robber trenches. They could be associated with the robbed-out walls and represent metallurgy within *Insula* 30 of the Roman town, but it was not possible to confirm the date of the metallurgy. It is equally possible that F80 is post-Roman and represents street metallurgy associated with an earlier phase of Long Wyre Street.



Photograph 26 Outline of robber trenches F77 and F78, looking south.



Photograph 27 Long Wyre Street reduction, looking north.

East side of the junction between St Nicholas Street and Culver Street East (Fig 12)

An area c 7.2m east/west by 4.1m north/south was mostly excavated to the top of modern services. A small patch of a post-medieval levelling layer was revealed (L68) with the remains of a post-medieval brick structure (F85) which could be part of an old brick manhole or similar service.



Photograph 28 Long Wyre Street reduction showing F78 and F3 along with L62, L65, L66 and L67, looking east.



Photograph 29 Far east end of Culver Street East, looking north-east.

5.2 St Nicholas Churchyard (Fig 13)

5.2.1 The burial chambers (Fig 13)

Fifteen west-east burial chambers were recorded during the investigations at St Nicholas Square. In his 1991 book *The English Way of Death*, Litten lists four types of intramural burial vault of the period 1650-1850 (211-212), which can be helpful to our discussions here:

- Type 1 – Large dynastic vaults, usually for noble families.
- Type 2 – Double- or triple-width brick-lined graves with their own barrelled roof, usually for landed gentry.
- Type 3 – Single-width brick-lined graves, capped by ledger stones, usually for the professional classes.
- Type 4 – Extensive private and parochial vaults, c 1725-1850.

Fourteen of the St Nicholas Square burial chambers were Type 3, single-width and brick-lined graves capped by stone slabs. Popular from the late 17th and throughout the 18th century (Litten 1991, 108) these chambers were sunk an average of 12 feet deep and could accommodate six coffins stacked on iron bars (Litten 1991, 224). The brick chambers could be rectangular or shouldered (coffin-shaped), and all those at St Nicholas Square that could be identified were shouldered. None of the stone slabs were inscribed, suggesting that were capping stones rather than ledger stones which would usually be inscribed.

One of the chambers (F3) was probably a Type 2 double-width grave. Most of the roof was missing, but what was left did appear to be barrelled.

Brick foundations laid on top of the capping stones were found associated with three of the chambers (F2, F10, F13/F14). They presumably represent the foundations of above ground funerary monuments used to mark and commemorate the interred individuals. A plinth found at the western end of F21 could be the base of a gravestone or other funerary monument, and gravestone F18 could possibly be associated with burial chamber F69.

The tops of all the burial chambers and the slabs sealing them (if still in place) were removed as part of the development. Photographs were taken of the inside of the chambers where possible and safe to do so. None of the interred burials were excavated or lifted. All of the chambers were subsequently backfilled with sand and stone chips, sealed and are now preserved beneath the development.

Unnumbered, probable burial chamber from trial-hole 7

Originally identified as a possible remnant of brick wall foundation associated with the churchyard, this feature was not given a number. However, evidence would now suggest that it was probably part of a vaulted brick burial chamber, possibly similar to F16 (see below). The top of the chamber was probably removed by the development.

Burial chamber F2

Litten Type 3, shouldered, chamber walls were a single-brick thick and whitewashed with the top two rows of brick painted black. The chamber was sealed with three large stone slabs which were lifted to access the chamber. Inside was a wooden coffin in poor condition with the lid caved in. A decorative iron plate was visible on top of the lid, but it was impossible to get close enough to determine if the plate was inscribed. Above the coffin were two iron ties supporting the walls of the chamber. There was at least one more coffin underneath the first. Both coffins were resting on iron bars. The coffins were left *in situ* and the chamber resealed and reburied.

Excavation also revealed a rectangular brick foundation set on top of the capping stones with additional walls to the east and west which probably supported a funerary monument above ground. These were removed as part of the development. The bricks were dated to the late 18th/early 19th century.

Burial chamber F3

Litten Type 2, double-width with probable barrelled roof. As most of the roof was missing it had been backfilled with soil, stone and rubble. The fill was machine excavated to a depth of 1.2m and no *in situ* burials were encountered. It is possible that they were removed in the 1950s.

Burial chamber F10

Litten Type 3, shouldered, chamber walls were two bricks thick and whitewashed with the top two rows of brick painted black. The chamber was sealed by four large stone slabs which were lifted to access the chamber. The top coffin was covered in a thin loose layer of soil obscuring any detail. There were at least another two coffins beneath, with all coffins stacked on iron bars. The coffins were left *in situ* and the chamber resealed and reburied.

Excavation also revealed a rectangular red brick foundation, 2-3 bricks thick, set on top of the capping stones for a funerary monument. These were removed as part of the ground reduction. The bricks were dated to the late 18th/early 19th century.

Burial chamber F12

Litten Type 3, shouldered, chamber walls were one brick thick and whitewashed with two rows of brick (6&7 rows deep) painted black. The chamber was revealed, slabs lifted and partially backfilled without archaeological supervision. The coffins were left *in situ* and the chamber resealed and reburied.

Burial chamber F13/F14

Litten Type 3, shouldered, chamber walls were one brick thick and whitewashed. The chamber was sealed with large stone slabs (number not recorded) which were lifted to access the chamber. There

was at least one deep coffin with room on top for more to be buried. The coffins were left *in situ* and the chamber resealed and reburied.

Excavation revealed a substantial foundation for a funerary monument on top of the slabs with three north/south brick walls across the chamber, which were one brick thick and had survived at five courses high. These were removed as part of the ground reduction.

Burial chamber F16

Litten Type 3, probably shouldered, chamber walls were one brick thick. The top of the chamber was vaulted. The vaulted roof was removed and the chamber backfilled without archaeological supervision. The coffin(s) were left *in situ* and the chamber resealed and reburied.

Burial chamber F20

Litten Type 3, shouldered, chamber walls were one brick thick and whitewashed. The chamber was sealed with four large stone slabs which were lifted to access the chamber. Remains of a coffin seen in the chamber, but the sides of the excavation area were collapsing. The coffin was left *in situ* and the chamber resealed and reburied.

Burial chamber F21

Litten Type 3, shouldered, chamber walls were one brick thick and whitewashed. The chamber was sealed with four large stone slabs which were lifted to access the chamber. A plaque was visible on top of the coffin. The coffin was left *in situ* and the chamber resealed and reburied.

At the western end of the chamber were the remains of a plinth (0.6m long, 0.28m wide) which was possibly the base for a gravestone or similar monument.

Burial chamber F23

Excavated as part of the 2020 evaluation (CAT Report 1625, F3). The stone slabs sealing the chamber had already been removed and the chamber had been backfilled at some point in the past. The 2020 evaluation excavated the chamber to a depth of 1.3m but no *in situ* burial was encountered, although the remains of disarticulated bone and coffin furniture were recovered. As the chamber had already been excavated and backfilled it was not re-excavated as apart of this phase of work and was reburied under the development. Information from the evaluation shows it is a Litten Type 3, shouldered, with the chamber walls one brick thick and whitewashed.

Burial chamber F24

Uncovered as part of the 2020 evaluation (CAT Report 1625, F1). The stone slabs sealing the chamber had already been removed and the chamber had been backfilled at some point in the past. As the chamber had already been backfilled it was not excavated in either 2020 or as part of these investigations and was reburied under the development. Information from the evaluation shows it is a Litten Type 3, shouldered, with the chamber wall one brick thick.

Burial chamber F50

The only part of burial chamber F50 revealed were three sides of a rectangular brick foundation that was two bricks wide. The chamber was not investigated any further and was reburied under the development.

Burial chamber F51

The only part of burial chamber F51 revealed was a short row of bricks two courses wide. The chamber was not investigated any further and was reburied under the development.

Burial chamber F69

Litten Type 3, shouldered, chamber walls were one brick thick. The chamber was probably originally sealed by four large stone slabs but only a few fragments remained, it had also been backfilled with soil, this probably happened when a service had been cut through the top of the chamber. The chamber was not excavated as part of these investigations and was reburied under the development. Gravestone F18 could be associated with this monument.

Burial chamber F72

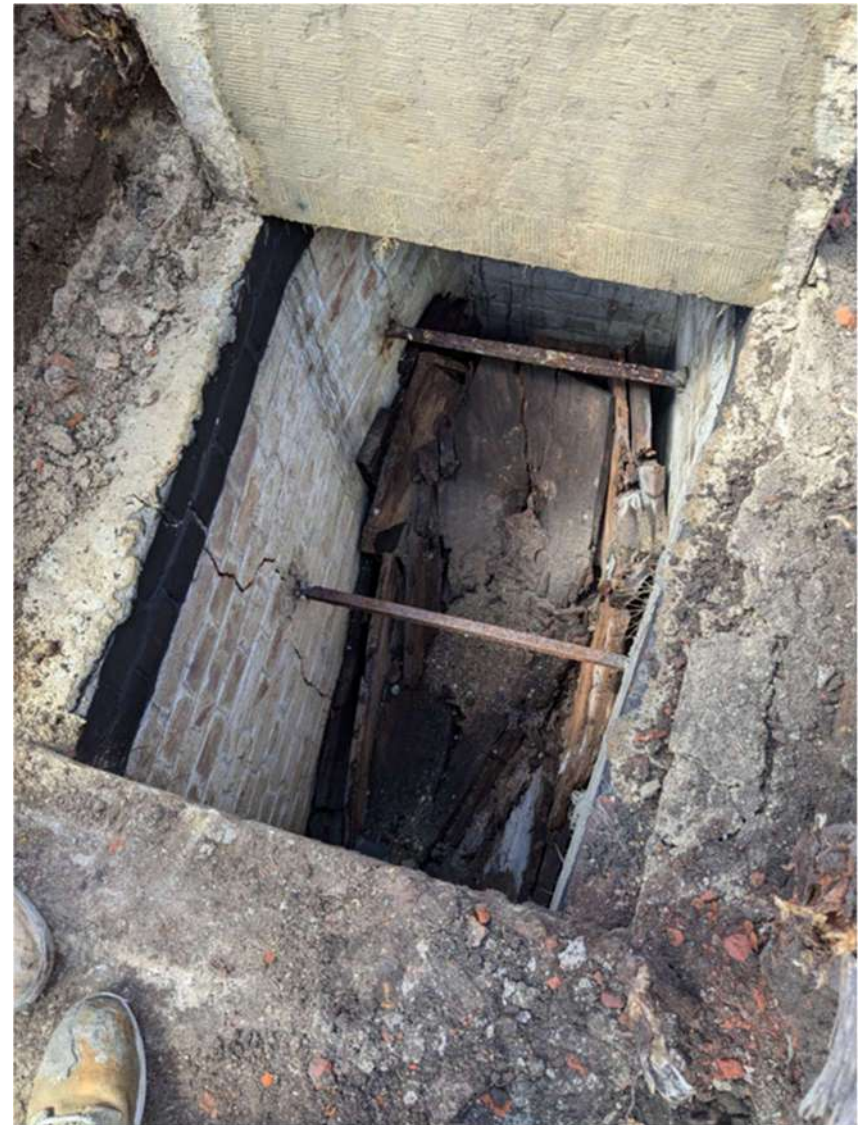
The only part of burial chamber F72 revealed was one row of bricks on the southern edge of the feature. The chamber was not investigated any further and was reburied under the development.

Structure F48

Structure F48 is unusual. It is rectangular (>2.1m by 1.4m), east-west aligned, identified close to ground level and cut through the graveyard soil, indicating that it is a burial feature. However, whereas the burial chambers were made of brick, this was made of septaria blocks and rare Roman CBM in a lime mortar. The materials used here could suggest that the structure is an early burial monument within the churchyard that pre-dates the use of brick. The structure had been heavily truncated by services. Only limited investigation of the inside of the structure was possible, which did not identify any associated burials.



Photograph 30 Burial chamber F2, looking west, showing brick structure over the slabs.



Photograph 31 Burial chamber F2 with slabs lifted revealing coffin beneath, looking east. An iron coffin plaque is visible on top of the coffin.



Photograph 32 Burial chamber F3, looking south-south-west.



Photograph 33 Burial chamber F10, looking west, showing brick structure above slabs.



Photograph 34 Burial chamber F10 with slabs lifted revealing coffin beneath, looking west.



Photograph 35 Burial chamber F12 with slabs lifted, looking west.



Photograph 36 Burial chamber F13/F14, looking north-west, showing brick structure above the slabs.



Photograph 37 Burial chamber F13/F14 with slabs lifted revealing coffin beneath, looking west.



Photograph 38 Burial chamber F16 with vaulted/barrelled roof, looking east.



Photograph 39 Burial chambers F10 and F16 after slab lifted/roof removed and backfilled with stone, looking west.



Photograph 40 Burial chamber F20, looking west.



Photograph 41 Burial chamber F20 with slab lifted but sides have collapsed, looking west.



Photograph 42 Burial chamber F21 with one slab lifted, looking west.



Photograph 43 Burial chamber F31 with slabs lifted showing coffin beneath, looking east.



Photograph 44 Burial chambers F23 (back) and F24 (front), looking north-west.



Photograph 45 Burial chambers F50 (front) and F51 (back, shown by the blue arrow), looking east.



Photograph 46 Burial chamber F69, looking west.



Photograph 47 Burial chamber F72, looking north.



Photograph 48 Burial structure F48, looking east-north-east.

5.2.2 The inhumations (Figs 13, 19-27 & 33)

In addition to the burial chambers another twenty-six burials were recorded where a single individual was buried straight into the ground. Three graves were not excavated (F15, F44 and F57) and have been left *in situ* beneath the development. Due to the nature of the groundworks not all of the remaining twenty-three burials were excavated in their entirety, with only those areas of the body due to be impacted by the groundworks excavated and lifted. The unimpacted skeletal parts of all these individuals were left *in situ* and are now buried beneath the development. A full analysis of the skeletal remains removed from the site can be found in Section 6. They will be reburied in Colchester cemetery on completion of this report.

The burials were supine and aligned west-east. Thirteen were buried in a coffin or produced residual coffin furniture disturbed from other burials (and so must post-date the introduction of the confined burial). Burial in a coffin became common from the late 17th century onwards with coffin decoration becoming increasingly more elaborate by the early 18th century (Webb & Norton 2009, 173). Metal coffin fittings could include handles (also known as grips), grip plates, upholstery studs, breastplates, headplates and footplates. Coffin furniture from the St Nicholas Square graves includes iron nails, iron handles, fragments of iron plate (which could be the remains of grip plates or breast/head/foot plates), iron and copper-alloy upholstery studs, with fragments of mineralised wood from the coffin itself also identified. Most pieces of furniture were of iron, made in the cheapest metal available (Webb & Norton 2009, 159). The only exception to this is a rectangular lead plaque from F30 (see Fig 33) inscribed:

SOPHIA RANSON

Died

21st February 1824

Aged 14 Years

Burial records state that she was buried on 26th February 1824.

Ten burials did not produce any coffin remains. They probably predate the late 17th century and could date back to the medieval period. However, where only parts of these burials were excavated, there is every possibility that coffin remains were present in the unexcavated areas.

Burial F1 (Fig 19)

Analysis revealed the burial to be an adult male, 35-50 years old. Coffin furniture from the burial consisted of an iron handle, studs and nails. Post-medieval residual pottery from the backfill of the grave indicates that the individual cannot have been buried before 1725-1750.

Burial F27 (Fig 19)

Analysis revealed the burial to be an infant of 1+ years. Coffin nails were recovered. Post-medieval residual pottery from the backfill of the grave indicates that the individual cannot have been buried before the mid to late 17th century.



Photograph 49 Inhumation burial F30, looking north.



Photograph 50 Inhumation burial F39 with partial F42 visible and disarticulated skull (83), looking north.

Burial F28 (Fig 20)

Analysis revealed the burial to be an adult ?male, 18+ years old. Medieval/post-medieval.

Burial F30 (Fig 20)

Analysis revealed the burial to be an adolescent, 12-16 years old. This correlates with a lead plaque found with the burial which identifies the individual as Sophia Ranson, who died in 1824 aged 14 years old (see p.49 for more details).

Burial F33 (Fig 21)

Analysis revealed the burial to be a mid-old adult, 35+ years. Coffin nails were recovered along with fragments of mineralised wood and a tar-like varnish coating on the wood. Post-medieval residual pottery from the backfill of the grave indicates that the individual cannot have been buried before the 19th century.

Burial F37 (Fig 21)

Analysis revealed the burial to be a child, 8-12 years old. Coffin furniture from the burial consisted of an iron handle, fragments of iron sheet (probably from a grip plate or plaque) and nails. Post-medieval residual pottery from the backfill of the grave indicates that the individual cannot have been buried before the early 19th century.

Burial F38 (Fig 21)

Analysis revealed the burial to be a ?male young-mid adult, 20-50 years old. Coffin furniture from the burial consisted of an iron handle and nails. Post-medieval residual pottery from the backfill of the grave indicates that the individual cannot have been buried before the 19th century.

Burial F39 (Fig 22)

Analysis revealed the burial to be a ?male young adult, 20-30 years old. Coffin furniture from the burial consisted of an iron handle, grip plate and nails with a copper-alloy pin. Burial F39 cut burial F42 and was cut by burial chamber F13/14. Post-medieval.

Burial F40 (Fig 23)

Analysis revealed the burial to be a ?female adult, 18+ years old. Coffin furniture from the burial consisted of an iron handle, grip plate, studs and nails. Post-medieval.

Burial F41 (Fig 23)

Analysis revealed the burial to be a ?female mid-old adult, 45+ years old. Coffin furniture from the burial consisted of copper-alloy studs and a dress pin. Post-medieval.

Burial F42 (Fig 22)

Analysis revealed the burial to be a female young adult, 25-35 years old. Burial F42 was cut by burial F39 and burial chamber F13/14. Medieval/post-medieval.

Burial F43 (no plan)

The skull was the only part of the body impacted by the development. Analysis revealed the burial to be a ?female adult, 18+ years old. Medieval/post-medieval.

Burial F45 (Fig 24)

Analysis revealed the burial to be a ?female young-mid adult, 27-40 years old. Fragments of five copper-alloy dress pins suggest that she might have been buried in a shroud. Medieval/post-medieval.

Burial F52a (Fig 24)

Analysis revealed the burial to be a ?female adult, 18+ years old. Coffin furniture from the burial consisted of two iron handles. Post-medieval.

Burial F55 (Fig 25)

Analysis revealed the burial to be a female mid-old adult, 42+ years old. Coffin furniture from the burial consisted of an two iron studs. Burial F55 cuts burial F56. Post-medieval.



Photograph 51 Inhumation burial F55, looking south-west.

Burial F56 (Fig 25)

Analysis revealed the burial to be a ?male young adult, 15-20 years old. Burial F56 was cut by burial F55. Medieval/post-medieval.

Burial F63 (Fig 26)

Analysis revealed the burial to be an adult, 18+ years old. Coffin furniture from the burial consisted of iron handles, studs and nails. Post-medieval residual pottery from the backfill of the grave indicates that the individual cannot have been buried before the 19th century.

Burial F64 (Fig 26)

Analysis revealed the burial to be an adult, 18+ years old. Medieval/post-medieval.

Burial F65 (Fig 26)

Analysis revealed the burial to be a child, 10-12 years old. Medieval/post-medieval.



Photograph 52 Inhumation burials F63, F64 and F65, looking north.

Burial F67 (Fig 26)

Analysis revealed the burial to be a female young-mid adult, 20-44 years old. Medieval/post-medieval.

Burial F71 (Fig 27)

Analysis revealed the burial to be a mid-old adult, 35+ years old. Medieval/post-medieval.

Burial F73 (Fig 27)

Analysis revealed the burial to be a ?female adult, 18+ years old. Medieval/post-medieval.

Burial F74 (Fig 27)

Analysis revealed the burial to be a female adult, 18+ years old. Coffin furniture from the burial consisted of a coffin plate, studs and nails. Post-medieval.

5.2.3 The disarticulated human bone

As would perhaps be expected in a churchyard, especially one with a significant level of modern truncation from services, there was a high quantity of disarticulated human bone amounting to 6,390 fragments, totalling almost 120kg and representing a minimum number of 138 individuals.

6 Human remains

by Megan Beale

6.1 Introduction

Twenty-three inhumations and about 120kg of disarticulated human bone were recovered from the site. The remains vary from in date from medieval to post-medieval and belong to the former churchyard of St Nicholas' Church, which was demolished in 1955. Some inhumations are incomplete, either truncated by later features or extending beyond the limit of excavation (LOE). Where possible, the LOE was extended to recover the full skeleton, however removal of the remains was necessary – even if incomplete – due to the nature of the development. Most age groups, from infant to old adult were represented, with more females estimated than males. A wide range of pathologies were noted. A summary of osteological assessments for all articulated and disarticulated remains can be seen in Appendices 2 and 3, with raw data in Appendices 4 and 5.

6.2 Methodology

Treatment, assessment and this report are based on the following guidelines: *Updated Guidelines to the Standards for Recording Human Remains* (Mitchell & Brickley 2018), *Guidance for Best Practice for the Treatment of Human Remains Excavated from Christian Burial Grounds in England* (Mays 2017), *BABAO Code of Ethics* (2019a) and *BABAO Code of Practice* (2019b).

The remains were excavated, recorded, and lifted for washing. After cleaning, articulated remains were weighed and counted by element and side, and assessed for estimations of age, sex, stature, and pathologies. Bone condition was also recorded, on a scale of 1-5, with one being very poor and five being very good. Completeness was recorded to the nearest 5%, using groups as per Buikstra & Ubelaker (1994). For all disarticulated remains, a minimum number of individuals (MNI) was carried out using the most common element and separating by side (e.g. two right femurs and three left femurs = MNI of 3).

Age-at-death for adults was estimated using a combination of methods as per Buikstra & Ubelaker (1994), Lovejoy (1985) and Brothwell (1981). Ages for immature remains were estimated using various methods from Schaefer *et al* (2009), including dental eruption, dental and long bone measurements, and epiphyseal fusion. Individuals were given age groups as per Buikstra & Ubelaker (1994), as well as specific age ranges where possible. The age groups can be seen below in Table 1.

Sex was estimated for individuals over the age of 18 years old and used methods as per Buikstra & Ubelaker (1994), Falys *et al* (2005), and Milner & Bolsden (2012). Individuals were recorded as male, ?male (likely male), female, ?female (likely female), or indeterminate (not enough data or immature remains).

Stature was estimated for adults combining regression formulae as per Dupertius & Hadden (1951), Trotter & Gleser (1958), and Trotter (1970). An average was created using these results and presented in centimetres, and feet and inches. Where the estimation of sex was indeterminate, results for males and females were combined to create an average and range. Where long bones were likely to fragment upon lifting due to poor condition, they were measured *in situ* before lifting and used to estimate stature. Measurements taken in post-excavation were used for long bones in better condition. Pathologies and non-metric traits were assessed macroscopically using Roberts & Manchester (2010), as well as palaeopathological and clinical texts, referenced where relevant.

Age group	Description
Foetal	<birth
Infant	birth-3 years old
Child	3-12 years old
Adolescent	12-20 years old
Young Adult	20-35 years old
Middle Adult	35-50 years old
Old Adult	50+ years old
Adult	18+ years old

Table 1 Age groups as per Buikstra & Ubelaker (1994).

6.3 Results

6.3.1 Inhumations

Twenty-three individuals were recovered from twenty-three contexts. Almost 18kg of human bone came from these twenty-three inhumations.

Condition and completeness

Condition of remains ranged from very poor to good, with the majority being in poor condition (n=9). The average weight of inhumations was 745.8g, with an average fragment count of seventy-four. Due to high truncation and incomplete skeletons, completeness ranged from 5%-60%. As Chart 1 shows, most remains were 20-25% complete, with an average completeness of 25%.

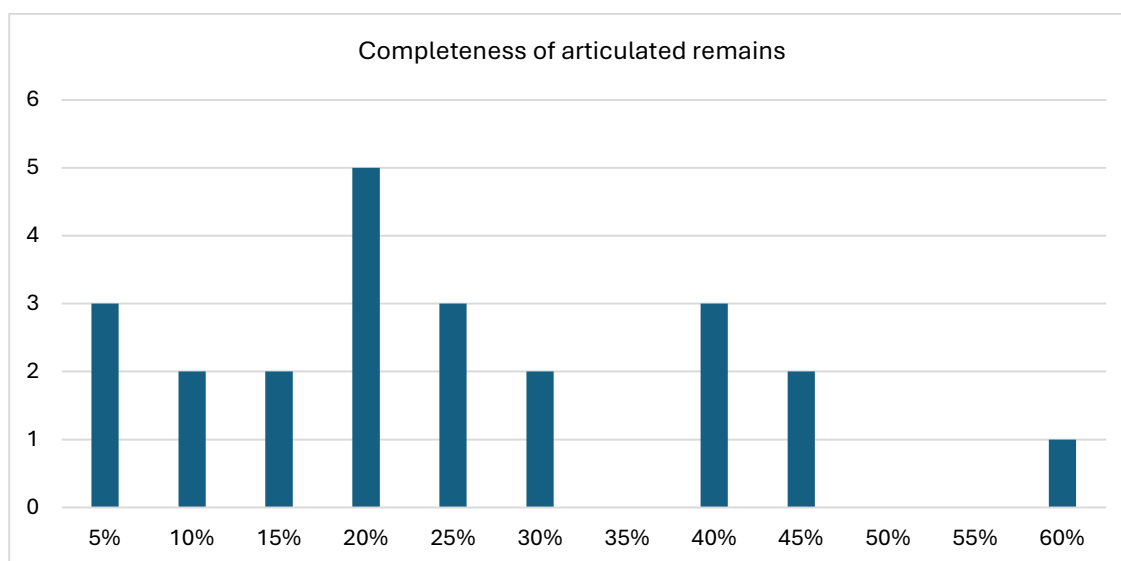


Chart 1 Completeness of articulated remains.

Estimations of age and sex

The majority of individuals were estimated to be female, with the most common age group represented as middle-old adult (35-50 years old) (Table 2). No foetal remains, or old adults (50+ years old) were noted in this assemblage.

	Foetal	Infant	Child	Adolescent	Young Adult	Y-M Adult	Middle Adult	M-O Adult	Old Adult	Adult	TOTAL
Male/?Male	-	-	-	1	1	1	1	-	-	1	5
Female/Female	-	-	-	-	1	2	-	2	-	5	10
Indeterminate	-	1	2	1	-	-	-	2	-	2	8
TOTAL	-	1	2	2	2	3	1	4	-	8	23

Table 2 Summary of age-at-death by estimation of sex.

Stature

Stature was estimated for twelve individuals. The average stature was 167.87cm (5'6"), with a range of 160-187cm (5'3"-6'1½") (Chart 2). The average stature for males was 169.88cm (5'7"), and the average for females was 169.56cm (5'7").

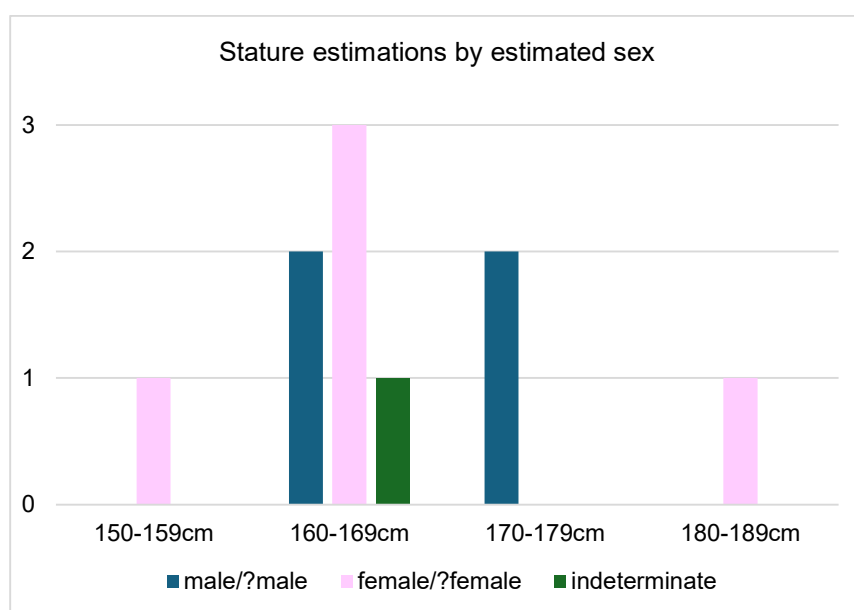


Chart 2 Stature estimations by estimated sex for articulated remains.

Pathologies

Dental conditions

Dental conditions were the most common type of pathology, as at least one dental condition was noted in ten of the twenty-three individuals.

Dental calculus was only noted in one individual (F42). Calculus is mineralised dental plaque and is still commonly seen in the modern day.

Dental caries was noted in six individuals (F1, F37, F41, F42, F43, F45) and varied from one to five teeth affected. The degree to which teeth were affected also varied; all were affected interproximally or buccally, and only two individuals had caries that had fully destroyed the crown (F42, F43). Caries are thought to have vastly increased with the introduction of refined sugars and flours in Britain (Brothwell 1981, 153). They often lead to ante-mortem tooth loss and/or abscesses if left untreated.

Dental abscesses were noted in three individuals (F1, F43, F67), with one individual suffering from a caries and abscess in the same tooth. Abscesses can be caused by dental caries, calculus, and generally poor dental hygiene, often leading to tooth loss.

Enamel hypoplasia was noted in three individuals (F37, F39, F42), and all were presented in horizontal stripes, with slight-moderate severity. Enamel hypoplasia is an enamel defect indicating periods of stress during dental development (childhood). Periods of stress can include disease, malnutrition, or chronic vitamin deficiencies. The individual from F37 was still a child at the time of

death, so the enamel hypoplasia may be evidence of an active period of stress. The other two individuals were young adults, so the hypoplasia is likely a permanent indicator of childhood stress.

Periodontal disease was only noted in one individual (F42) and was mild. Periodontal disease is closely related to calculus and consequently ante-mortem tooth loss. It can begin with gum inflammation (gingivitis), which can sometimes result in bone resorption, followed by tooth loss. Similar to caries, periodontal disease is usually caused by poor dental hygiene and a diet high in refined sugars (Roberts & Manchester 2010).

Ante-mortem tooth loss was noted in seven individuals. The numbers are likely higher, however bone preservation restricted analysis. Three individuals within this group had edentulous mandibles and maxillas (F33, F40 and F67) with complete alveolar resorption. As previously mentioned, ante-mortem tooth loss is usually secondary to other dental diseases, however trauma and intentional extraction can also cause tooth loss.



Photograph 53 Edentulous maxilla from F33, superior view.

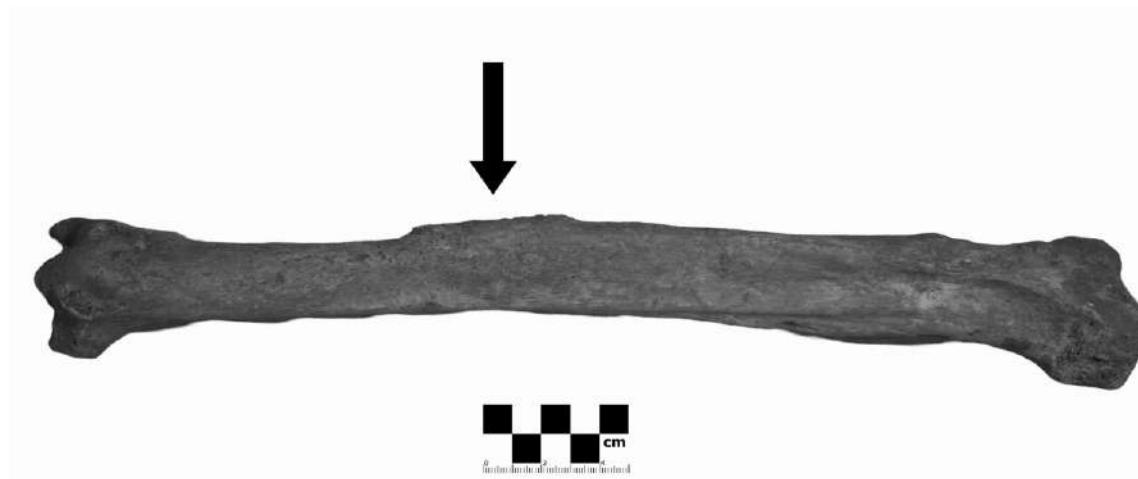
Joint disease

Only one individual (F52a) showed evidence of joint disease. Vertebral pitting, enthesophytes and loss of bone density throughout indicates vertebral osteoarthritis in this individual. Joint disease is often associated with old age, and in this assemblage, most individuals were estimated to be under 40 years old, which is not necessarily considered “old” in the post-medieval period.

Infectious disease

Infectious disease was noted in two individuals. Probable bilateral mastoiditis was noted in F45, whereby the right mastoid process was completely destroyed, and destruction had begun in the left one. More commonly seen in children, mastoiditis is an infection resulting from chronic, untreated middle-ear infections.

The second individual, F52a, had two instances of infectious diseases. The left tibia distal shaft had a raised area of oval bone with surrounding porous, woven bone. This suggests likely osteomyelitis, or similar infection, from an ulcer. The right femur also showed evidence of osteomyelitis; the mid-distal end of the femoral shaft showed significant thickening of the periosteal bone. No woven bone, sinuses or striations were seen, although sinuses may be seen in x-ray. Osteomyelitis is a bone infection caused by bacterial infections in the bloodstream, caused by disease or localised, penetrating trauma. Chronic skin lesion like ulcers can cause osteomyelitis, however it is normally localised (Roberts & Manchester 2010, 171).



Photograph 54 Left tibial ulcer from F52a, lateral view.

Metabolic disease

Metabolic disease was noted in one individual (F39). This individual, a young adult, showed evidence of minor bilateral cribra orbitalia, seen in the superior orbital sockets. Developing in childhood, cribra orbitalia are a sign of chronic vitamin deficiencies, for example iron, vitamin C or D, or general malnutrition.

Trauma

Evidence of trauma was noted in four individuals. One individual, F1, showed signs of a costoclavicular ligament injury or fracture at the sternal end of the right clavicle. The former can be caused by mechanical stress or overuse, and results in a sprain, tear or dislocation.

Individual F42 showed a partial spinous process fracture to an upper thoracic vertebra. This can be known as a clay-shoveller's fracture, but mostly commonly affects the lower cervical vertebrae,

although it can occur at the upper thoracic. This type of fracture is caused by sudden repetitive pulling motions on the upper back. It can be a sign of occupation, as it is commonly associated with digging or shovelling (Bello *et al* 2024).

A healed oblique/spiral fracture with slight misalignment of the right distal ulna shaft of F55 was noted. This type of fracture could be described as a “parry” fracture (Judd 2008). This type of fracture is isolated to the ulna, and indicative of an individual holding their forearm up in defence of a blow to the face. It can be an indicator of interpersonal violence, but generally a parry fracture can be caused by any direct blow to the lower arm.

Possible periostitis has been noted on the right tibia of F67. There is a small, raised area of new lamellar bone (55mm in length), with striations surrounding it. Periostitis – or a periosteal reaction - is an inflammation of the periosteum. The periosteum is a membrane that covers the outer surface of bone. There are many causes, but is generally an indicator of stress, from injury to vitamin deficiency, to chronic disease. This raised area of new bone could also be a healing traumatic injury.

A left, small external auditory exostosis (EAE) was noted on the posterior canal wall in F67. The exact cause is unknown, but there are strong links between these specific exostoses and aquatic activities; this condition is also known as “Surfer’s Ear”. Research has shown repeated contact with cold water can cause the development of EAEs (Özbek 2012; Villotte & Knüsel 2015). This could indicate the individual regularly took part in aquatic activities – such as swimming or diving – or could be evidence of their occupation, e.g. sailor or fisherman.

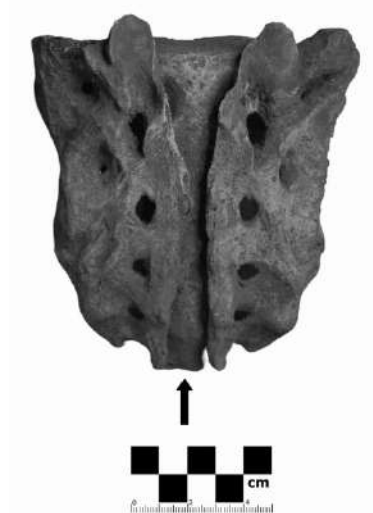


Photograph 55 Healed right ulna fracture from F55, anterior view.

Congenital defects

Congenital defects were noted in three individuals. Congenital defects can vary in severity; the individual may go unaffected their entire life with a congenital defect, or they can be so severe they may not survive birth. Lumbarisation of S1 was noted in F33, and a partial sacralisation of L5 was seen in F52a. Both are harmless congenital abnormalities and may only cause lower back pain or stiffness.

Spina bifida *occulta* (“hidden”) was seen in F39, evidenced by an open posterior sacrum from S1-S5. This is not an uncommon defect, can be caused by genetic or environmental factors (Roberts & Manchester 2010, 55), and is generally asymptomatic. Some forms of spina bifida *occulta* can also simply be a normal variation for that local population.



Photograph 56 Spina bifida from F39, affecting S1-S5, posterior view.

Non-metric traits

Non-metric traits are normal variations in the skeleton that usually have no effect on an individual's life but can be an indication of familial relationships or ancestral/population groups. Non-metric traits were noted in four individuals. Two individuals had singular non-metric traits; F39 had bilateral parietal foramen, and F42 had bifurcated spinous processes affecting C2-C5. F45 had a left unilateral supraorbital foramen present, and a right unilateral supraorbital notch present. F55 had a sternal foramen approximately 5mm x 9mm, as well as a left humeral septal aperture present.

Taphonomic changes

Taphonomic changes were noted in three individuals and all were copper alloy staining to bone. Staining was seen to the proximal end of the right radius and distal end of the left ulna of F39, the shaft of the right radius of F40, on the left temporal and left mandibular ramus of F45. Copper alloy staining is usually evidence of direct contact with a copper alloy object, for instance jewellery or coffin furniture/decoration. No copper alloy objects were found in these three burials, but may have been disturbed, removed or degraded.

6.3.2 Disarticulated remains

Quantification

Approximately 119.84kg, and 6,390 fragments of disarticulated human bone was recovered from twenty-eight contexts. Two layers, L2 and L13, accounted for the majority (75%) of disarticulated bone from the site. These layers are both churchyard accumulation soil across the site, so this quantity is to be expected.

Minimum number of individuals

The minimum number of individuals estimated in the disarticulated assemblage is 138 individuals.

Estimations of age and sex

All age ranges were represented in this assemblage. After general adults (18+ years old), the most common age represented were adolescents (12-20 years old). There were very few individuals over the age of 35 years old estimated.

It should be noted that for the contexts with a larger quantity of bone it has not been possible to assign estimated sexes to specific individuals within the context. Sex could be estimated for 54 individuals. There appears to be slightly more females represented than males. The vast majority of individuals were estimated to be of indeterminate sex as there was not enough data, or the individuals were less than 18 years old.

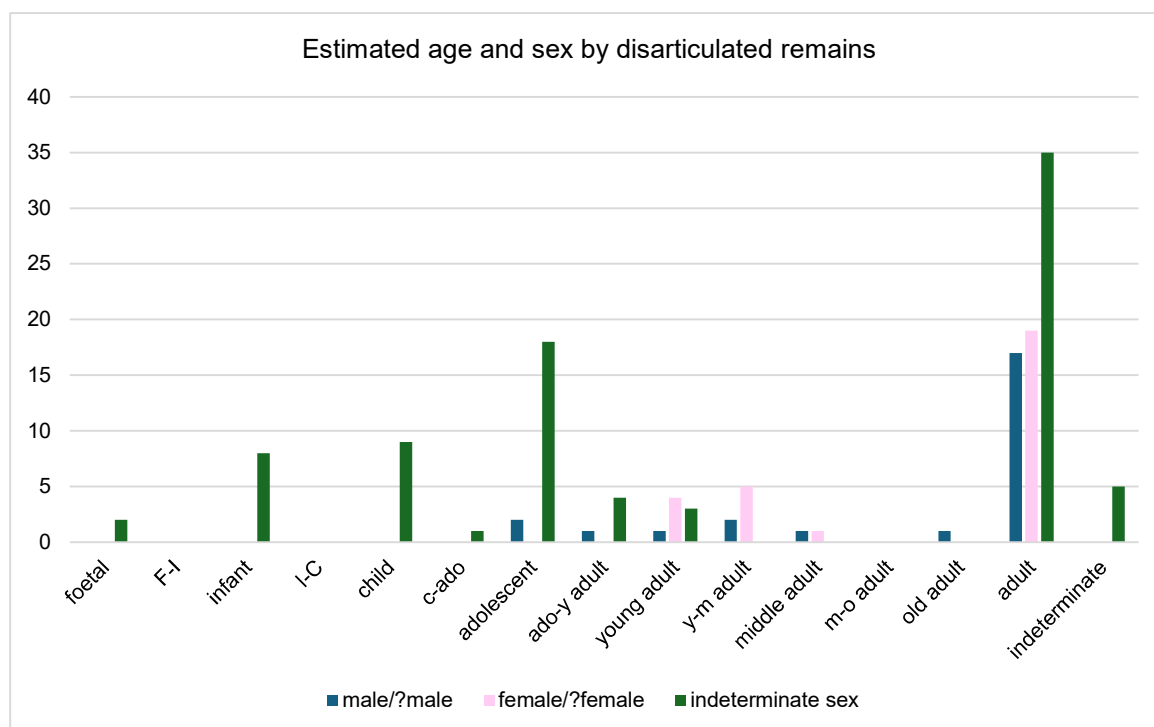


Chart 3 Estimated age group and estimated sex for disarticulated remains.

Stature

Stature could be estimated within four contexts with sixteen complete arm or leg bones, representing stature estimations for sixteen individuals. The average stature was 163.09cm (5'4"), with a range of 145-173cm (4'9"-5'8"). The average height for males was 172.68cm (5'8") (the only male), and the average height for females was 162.29cm (5'4").

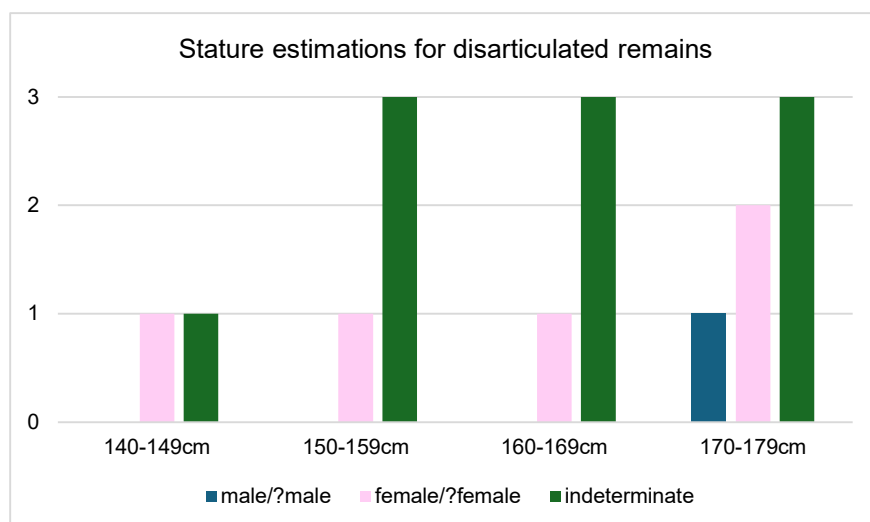


Chart 4 Stature estimations for disarticulated remains by estimated sex.

Pathologies

Dental conditions

Dental conditions were identified in five contexts. The most common dental condition seen was ante-mortem tooth loss (12 individuals from L2, L13, L14) with partial to complete alveolar resorption.

Dental calculus was noted on three occasions from three contexts (L2, L13, L35). Dental caries was noted in three contexts (L2, L13, F70), affecting C1s, PM1s, M1s, M2s and M3s, although M2s seem to be most affected.

An impacted RC¹ (erupting medially) was noted in L13. This commonly occurs today, and can be caused by a variety of reasons, including insufficient space (crowding), abnormal dental development, genetics, or other pathologies.

Three dental conditions were seen in the maxilla of one individual from L2 (67). Horizontal enamel hypoplasia, a reduced RM³, and hypercementosis to multiple teeth were seen. Enamel hypoplasia is a defect in the teeth caused by periods of stress during childhood. Stresses include malnutrition, vitamin deficiencies, or disease. A reduced molar can be a normal variant and generally does not cause any issues. Hypercementosis is the excessive buildup of cementum, the normal outside layer of a tooth

root. There are a number of possible causes of hypercementosis, including Paget's disease, arthritis, trauma and acromegaly. It can also be idiopathic in origin.

Horizontal enamel hypoplasia was noted on two more occasions in two contexts (L2, L13).

The RM₃ was congenitally absent in a mandible from L13.

Joint disease

Joint disease was seen in five contexts. Multiple instances of osteoarthritis were noted in vertebrae and acetabula from three contexts. Vertebrae were porous, light, with significant pitting. Acetabula had pitting and destruction of the acetabular margins. Eburnation was also noted in an unsided tibial head fragment. This is normally a symptom of advanced osteoarthritis, whereby cartilage is lost, resulting in bone-on-bone friction.

Possible diffuse idiopathic skeletal hyperostosis (DISH) was noted in the thoracic vertebrae of three individuals from two contexts. In the first two individuals, two thoracic vertebrae were fully fused together, with fusing beginning on the right side of three thoracic vertebrae for the second individual. The fusing of these vertebrae could alternatively be caused by ankylosing spondylitis (AS). DISH mostly affects the spine, and as the name suggests, its causes are unknown. It can lead to the entire spine fusing, giving a "candlewax" appearance. AS is similar to DISH but mostly appears in younger individuals (Roberts & Manchester 2010, 158; 161).

Infectious disease

Evidence of infectious disease was noted in seven contexts. The most prevalent type of infectious disease was periostitis, found in four contexts, with eleven examples seen. Periostitis here has been noted on fibulas, femurs, tibias, and possibly an ulna. On this occasion the periosteal reaction is characterised by a thickened periosteum and striated new lamellar bone. Some fragments had patches of grey woven bone in addition to the lamellar bone.

Osteomyelitis was identified in three contexts, affecting a fibula and femur. This was characterised by considerable thickening of the shaft, mostly due to significant grey woven bone, pitting and at least one abscess in each. Some new lamellar bone was also seen on the femur.

Probable mastoiditis was also seen in two contexts, affecting the mastoid process unilaterally in both instances. The mastoid processes were both partially destroyed. It was unclear if these individuals were juvenile or adult.

Woven bone has been noted on several fragments, evidence of an infection of some nature, but the specifics cannot be determined. A small patch of grey woven bone was noted on the anterior surface of the mid-shaft of a humerus fragment, indicative of an active infection. Significant grey woven bone

and some striations were noted on a femur, indicative of a chronic, but still active infection. A fragment of a left parietal bone showed patches of grey woven bone with fine pitting, which could be an active infection. This could also be suggestive of metastatic carcinoma (Ortner *et al* 1991; Assis & Codinha 2009), but without a full skeleton, certain diagnosis is difficult.

Shallow, capillary lesions have been found endocranially on a skull fragment, and endocranial fibre bone lesions were noted on another skull fragment; the latter measuring c 15mm long. Both fragments are likely from juvenile individuals, and so the cause of these lesions is wide in range. These include vitamin deficiencies, tuberculosis, syphilis, trauma, or an infection of the meninges (Lewis 2004). It should be noted that fibre bone deposits can also just be part of the normal growth process in infants and children.

The distal end of a left radius fragment showed grey woven bone with minor pitting, along with extra bone growth to the styloid process and articular surfaces for the scaphoid and lunate. This could be a trauma-related infection to the wrist, or a combination of arthritic changes with an infection.

Metabolic disease

Evidence of metabolic disease was noted in four contexts. Healed cribra orbitalia was noted unilaterally, affecting the left orbital roof. This healing is suggestive of a childhood illness or deficiency, for instance, a vitamin deficiency or malnutrition.

Mild-moderate porotic hyperostosis was noted in two contexts. Both appear to have affected the parietal bone, but the sides are unknown. Porotic hyperostosis is often seen with cribra orbitalia, and an indicator of iron-deficiency (anaemia) (Roberts & Manchester 2010, 230-1).

Lateral bowing has been noted in two juvenile femurs and one radius. This is generally indicative of rickets, a deficiency of vitamin D or calcium. Chronic deficiencies can “soften” the bones, which can lead to a deformity of weight-bearing long bones (Roberts & Manchester 2010, 237). Rickets in adulthood is known as osteomalacia, the causes of which are the same.

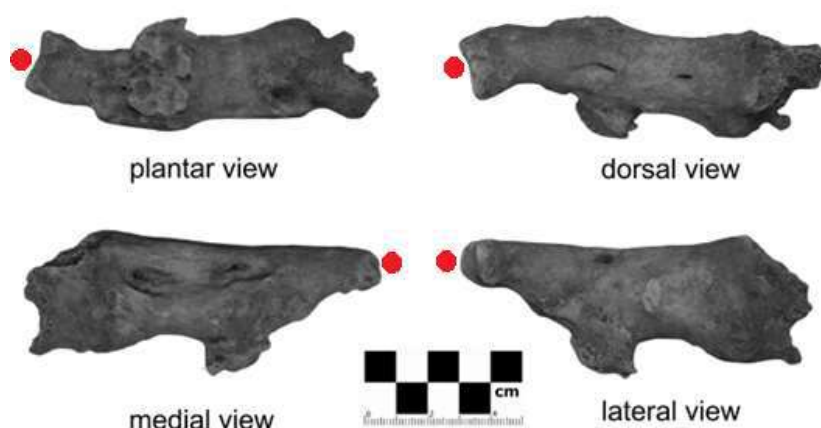
Neoplastic disease

A possible instance of an osteoid osteoma was noted in a fibula fragment. There was a noticeable, localised, rounded swelling in the distal shaft of the fibula, as well as fine pitting, new lamellar bone with striations, and small patches of grey woven bone. The swelling extends approximately 39mm across the shaft. Osteoid osteomas are benign bone tumours that are normally seen in long bones. There is a very small bony projection extending anteriorly from the centre of the swelling that may be indicative of osteochondroma, rather than an osteoid osteoma. Osteochondroma is also a benign tumour.

Trauma

Evidence of trauma has been noted in three contexts, affecting eight separate fragments. Three clean cuts were noted on the medial shaft of a left ulna, orientated approximately anterior-posterior. These could have been done peri-mortem, and due to their position could be defensive as the left arm may have been held up to protect the face. Sharp trauma was also noted on the left side of a skull fragment. Two cut marks 25mm above the left orbit were noted, anterior-posterior in orientation. They are 12.6-34.7mm long, and some healing appears to have occurred, so are likely ante-mortem.

Likely trauma-related ankylosis has been noted on three instances. An unsided first distal phalanx, metatarsal, and at least two tarsals have fused together. There is also evidence of woven bone and multiple abscesses. This may have been the site of a fracture or similar trauma, leading to an infection.



Photograph 57 Fused foot bones from L13, various views. Red dot indicates anterior direction.

The distal ends of a left tibia and fibulas were fused medially. This is likely due to a past injury (e.g. fracture or sprain) – possibly chronic – that has led to a partial ossification of the intraosseous membrane. This is also known as diaphyseal tibiofibular synostosis.

A fragment of a left femur showed heterotopic ossification to the proximal end. Specifically, this was seen posteriorly, around the psoas major/quadratus femoris/gluteus maximum area. There is extra lamellar bone growth to this area, as well as minor striations and pitting to the surrounding femoral shaft. Heterotopic ossification (HO) is abnormal formation of bone in soft tissues, normally occurring following trauma or injury. It is unlikely in this case that HO was caused by a femoral fracture, so the alternative cause is likely a muscle injury, specifically known as *myositis ossificans traumatica* (Assis and Garcia 2023).

Vertebral compression fractures were seen in two instances. Using the Genant classification of vertebral fractures (Genant *et al* 1993), both were Grade 3 crush fractures. The first affected a lower

thoracic/upper lumbar vertebra, which also had osteophytes. The second was an upper thoracic vertebra. Both were characterised by significant wedging to the anterior vertebral body. Vertebral fractures are more commonly caused by a fall from height but can also be caused by osteoporosis or tumours (Roberts & Manchester 2010, 91; 105).

Congenital defects

Congenital defects were noted in four contexts. Spina bifida (*occulta*) was seen in one sacrum, affecting S3-S5. Spina bifida *occulta* is the mild form of the condition; rather than spina bifida *cystica*, which is often fatal. The form of spina bifida seen here is where the posterior neural arches fail to form properly, the individual is normally unaware they have it, as it does not cause any issues or complications.

Anterior bowing was noted in a left tibia shaft, with some pitting and new lamellar bone growth. Anterior bowing in the tibia is known as saber shin. Typically saber shin is associated with congenital syphilis but can alternatively be caused by other treponematoses (yaws, bejel, pinta) (Ortner 2012, 255).

Likely developmental hip dysplasia was noted in two separate individuals – a left and a right femur - indicated by a flattened femoral head with arthritic changes (osteophytes, pitting and eburnation). This is a congenital condition that forms in infancy/childhood where the hip joint does not form properly. This can affect the acetabulum or femur – or both – and can lead to movement problems, osteoarthritis, and chronic hip dislocation. On this occasion it appears the femur is at least affected, and it is likely this dysplasia that has led to osteoarthritic changes.



Photograph 58 Saber shin from F37, lateral view.

Non-metric traits

Ten instances of non-metric traits were noted. Five septal apertures were present in humeri; one right and four left. They ranged from 4.5-8.6mm in width. A metopic suture was present in one individual. A possible left parietal foramen was present in a skull, although it was only 33mm posterior of the coronal suture. Two left lambdoid ossicles were present in a skull, as well as the presence of a small

apical bone. Bilateral astoionic bones were also present in another skull, with the right one larger than the left.

Taphonomy

As the remains are disarticulated, there was a high percentage of post-mortem damage from disturbance of the remains. This damage includes post-mortem fractures, scrapes, tool marks and cuts. There were also a few fragments of bone with copper alloy staining, for example on a left 2nd or 4th metatarsal, seen medially. This is from direct contact with a copper alloy object, in this instance, likely a ring. Three very small marks have been found on the medial distal epicondyle of a right femur fragment. They have been confirmed to not be animal claw or tooth marks (Alec Wade pers. comms.), so are likely tool marks; either a garden or grave digging tool.

6.4 Conclusion

Archaeological investigations at St Nicholas' Square, Colchester encountered twenty-three mostly incomplete inhumations, and a significant quantity of disarticulated human bone, representing at least 138 individuals. This is no doubt a reflection of the long history of activity at the former St Nicholas' Church, with the building that was demolished in 1955 having been rebuilt in the 19th century. Parish registers show recorded burials from 1541-1889, which is in accordance with the remains encountered, although some could be earlier than 1541. Due to coffin furniture, most appear of post-medieval date. The only inhumation that could be specifically dated is F30, as a coffin plate with the name of the individual and date was found in the burial. This burial belonged to Sophia Ranson (1810-1824), and estimation of age has confirmed F30 was between 12-16 years old, but sex was not estimated as the individual was under 18 years old. No pathologies were noted on the skeleton, although condition of the bone was very poor and only 60% complete.

This assemblage of articulated and disarticulated remains appears typical of a population from this time period(s). The lack of old adults may be due to a lower life expectancy around this time. Today, the average life expectancy is around 80 years old, but in the mid-19th century, mostly due to a high infant mortality rate, the average life expectancy was only around 40-45 years old (ONS 2015). The average life expectancy in the medieval period is thought to be lower than this again. The statures are also typical of this time (Galofré-Vilà *et al* 2017). A wide range of pathologies were seen, with no particular notable trends. They appear to show a fairly healthy community, with few examples of expected childhood malnutrition, common dental conditions, and minor congenital defects. The traumatic pathologies seen are mostly all accidental, likely caused as a result of their occupation, and/or overuse of a muscle/tendon/ligament.

7 Finds

Note from the author: Repeated episodes of gravedigging along with a high level of truncation (including from modern services) has meant that there is a significantly high level of residual finds from later contexts. This is reflected throughout the following reports.

7.1 Pottery and ceramic building material

by Dr Matthew Loughton

The investigations uncovered a modest assemblage of pottery and ceramic building material (henceforth CBM) at 674 sherds with a weight of 102.4kg and EVE of 8.95 (Table 3). The mean sherd weight is high at 152.0g which reflects the greater contribution of CBM to the assemblage weight.

Ceramic material	No.	Weight (g)	MSW (g)	EVE
Pottery	323	8,753	27.1	8.95
CBM	351	93,682	266.9	-
All	674	102,435	152.0	8.95

Table 3 Summary of the pottery and CBM.

7.1.1 Roman pottery (Appendix 6)

The Roman pottery was classified according to the fabric groups outlined in *CAR 10* (Symonds & Wade 1999) supplemented with fabric groups from the National Roman Fabric Reference Collection, henceforth NFRFC (Tomber & Dore 1998) (Table 4). Roman vessel types were classified via the Colchester (*Camulodunum*), henceforth Cam, type series (Hawkes & Hull 1947; Hull 1958; *CAR 10*, Bidwell & Croom 1999, 468-487). The pottery was recorded by sherd count, the number of rims, handles, and bases, and weight, for each fabric group. The number of vessels was determined by rim EVE (estimated vessel equivalent).

There was a small assemblage of Roman pottery at 157 sherds with a weight of 5.038kg and EVE of 6.30 (Tables 5-6). The mean sherd weight is 32.1g. This material was recovered from thirty-four contexts which consists of fifteen features and nineteen layers (Table 7). It is worth noting that a sizeable proportion of the Roman pottery was recovered from contexts dating to the medieval/post-medieval periods.

Fabric code	Fabric description	Fabric date range guide
BASG	South Gaulish (La Graufesenque) plain samian	AD 43-110
BACG	Central Gaulish plain samian	AD 110-220
BAEG	East Gaulish plain samian	AD 150-260
BAET	Inland Baetican (Guadalquivir) amphorae	Roman
BSW 1	Black surface ware (smooth, micaceous)	Roman
BSW 2	Black surface ware (sandier, coarser)	Roman

BSW 3	Black surface ware (coarser, pimply, sand & grog)	Roman
CH	Oxidised Hadham wares	AD 225/250-425
CS (A)	Pompeian-red wares 1 (Campanian)	20 BC-AD 100
DJ	Coarse oxidised and related wares	Roman
DJ (S)	Coarse oxidised and related wares (sandy)	Roman
EA	Nene Valley colour-coated wares	AD 225/250-425
EB	Lyon coloured-coated ware	AD 43-90
FJ	Brockley Hill/Verulamium region oxidised ware	AD 43-160
GAB TN1*	Gallia-Belgica Terra Nigra 1	20 BC-AD 80
GA	BB1: black-burnished ware, category 1	AD 110/125-400
GB	BB2: black-burnished ware, category 2	AD 110/125-300
GX	Other coarse, principally locally-produced grey wares	Roman
GX/47	Other coarse, principally locally-produced grey wares, misfired with patchy grey surfaces	Roman
HAD RE 1*	Hadham reduced ware 1	AD 200-400
HD	Shell-tempered and calcite-gritted wares	AD 43-425
HZ	Large storage jars and other vessels in heavily-tempered wares	Late Iron Age-Roman
HZ (BSW)	Large storage jars and other vessels in heavily-tempered wares with black surface	Late Iron Age-Roman
KX	Black-burnished ware (BB2) types in pale grey ware	AD 125/150-300
MP	Oxfordshire-type red colour-coated ware	AD 275-425
MR	Brown colour-coated ware, including Drag. 38 bowls	AD 275-400
NAF AM	North African amphora	AD 140-425
NARB	Narbonensis Amphorae (Gauloise)	30 BC-AD 300
TD	Verulamium region mortaria	AD 43-160/200
TG	Oxford mortaria, red/grey fabric with red colour coat & pink grits	AD 250/275-400
TN	Oxford mortaria, red/grey fabric with cream slip	AD 250/275-400
TZ	Mortaria, Colchester and Continental imports	AD 43-400
TZ (COL WH)	Mortaria, Colchester	AD 43-225
WA	Silvery micaceous wares	Roman

Table 4 Roman pottery fabrics recorded. *NRFRC

Fabric code	Fabric description	No.	Weight (g)	MSW (g)	EVE
BASG	South Gaulish (La Graufesenque) plain samian	3	19	6.3	0.00
BACG	Central Gaulish plain samian	3	68	22.7	0.08
BAEG	East Gaulish plain samian	1	22	22.0	0.00
BAET	Inland Baetican (Guadalquivir) amphorae	2	306	153.0	0.22
BSW 1	Black surface ware (smooth, micaceous)	1	2	2.0	0.00
BSW 2	Black surface ware (sandier, coarser)	2	42	21.0	0.35
BSW 3	Black surface ware (pimply, grog and sand)	1	11	11.0	0.05
CH	Oxidised Hadham wares	3	132	44.0	0.23
CS (A)	Pompeian-red wares 1 (Campanian)	1	45	45.0	0.00
DJ	Coarse oxidised and related wares	14	282	20.1	1.25

DJ (S)	Coarse oxidised and related wares (sandy)	4	42	10.5	0.00
EA	Nene Valley colour-coated wares	2	50	25.0	0.00
EB	Lyon coloured-coated ware	1	5	5.0	0.00
FJ	Brockley Hill/Verulamium region oxidised ware	1	3	3.0	0.00
GAB TN1	Gallia-Belgica Terra Nigra 1	2	15	7.5	0.13
GA	BB1: black-burnished ware, category 1	5	85	17.0	0.16
GB	BB2: black-burnished ware, category 2	16	338	21.1	0.67
GX	Other coarse, principally locally-produced grey wares	61	967	15.9	1.19
GX/47	Other coarse, principally locally-produced grey wares, misfired with patchy grey surfaces	1	6	6.0	0.00
HAD RE 1	Hadham reduced ware 1	1	28	28.0	0.00
HD	Shell-tempered and calcite-gritted wares	5	165	33.0	0.20
HZ	Large storage jars and other vessels in heavily-tempered wares	2	506	253.0	0.15
HZ (BSW)	Large storage jars and other vessels in heavily-tempered oxidised wares with black surface	3	408	136.0	0.00
KX	Black-burnished ware (BB2) types in pale grey ware	5	146	29.2	0.49
MP	Oxfordshire-type red colour-coated ware	2	40	20.0	0.21
MR	Brown colour-coated ware, including Drag. 38 bowls	1	75	75.0	0.00
NAF AM	North African amphora	1	221	221.0	0.33
NARB	Narbonensis Amphorae (Gauloise)	3	186	62.0	0.20
TD	Verulamium region mortaria	1	194	194.0	0.00
TG	Oxford mortaria, red/grey fabric with red colour coat & pink grits	1	11	11.0	0.00
TN	Oxford mortaria, red/grey fabric with cream slip	1	77	77.0	0.10
TZ	Mortaria, Colchester and Continental imports	2	344	172.0	0.11
TZ (COL WH)	Mortaria, Colchester	2	157	78.5	0.18
WA	Silvery micaceous wares	3	40	13.3	0.00
Total		157	5,038	32.1	6.30

Table 5 Summary of the Roman pottery.

Fabric Group	Form	EVE
BACG	All	0.08
	DRAG 31	0.08
BAET	All	0.22
	DR20C	0.22
BSW 2	All	0.35
	?	0.13
	CAM 268	0.22
BSW 3	All	0.05
	CAM 307	0.05
CH	All	0.23
	CAM 299?	0.23
DJ	All	1.25

Fabric Group	Form	EVE
	CAM 110	0.24
	CAM 154	1.00
	CAM 154/155	0.01
GAB TN1	All	0.13
	CAM 16	0.13
GA	All	0.16
	CAM 39A	0.07
	CAM 305A	0.09
GB	All	0.67
	CAM 37B/38B	0.19
	CAM 40A	0.27
	CAM 40B	0.16
	CAM 305B	0.05
GX	All	1.19
	?	0.16
	CAM 108	0.20
	CAM 268	0.73
	CAM 507	0.10
HD	All	0.20
	CAM 532	0.20
HZ	All	0.15
	CAM 273	0.15
KX	All	0.49
	CAM 37B/38B	0.14
	CAM 278	0.11
	CAM 305B	0.24
MP	All	0.21
	CAM 316	0.21
NAF AM	All	0.33
	DR30/KEAY 1B	0.33
NARB	All	0.20
	GAULOISE 4	0.20
TN	All	0.10
	CAM 505	0.10
TZ	All	0.11
	CAM 504/505	0.11
TZ (COL WH)	All	0.18
	CAM 497	0.18
Total		6.30

Table 6 Roman pottery quantification via vessel form.

Context	Feature type	No.	Weight (g)	MSW (g)	EVE
F1	Inhumation burial	2	17	8.5	0.07
F2	Burial chamber	1	12	12.0	0.00
F25	Metalling/metalled surface	7	427	61.0	0.00
F26	Pit/pits	9	104	11.6	0.21
F28	Inhumation burial	11	151	13.7	0.27
F31	Pit	5	89	17.8	0.15
F33	Inhumation burial	3	42	14.0	0.03
F34	Robber trench	2	35	17.5	0.00
F35	Pit	4	37	9.3	0.08
F37	Inhumation burial	2	11	5.5	0.05
F38	Inhumation burial	8	80	10.0	0.05
F39	Inhumation burial	1	5	5.0	0.00
F75	Robber trench	1	38	38.0	0.00
F78	?Robber trench	3	50	16.7	0.00
F80	Metalling	1	5	5.0	0.00
L2	Graveyard soil	8	194	24.3	0.31
L7	Graveyard soil	4	494	123.5	0.18
L8	Graveyard soil	8	209	26.1	0.24
L9	Accumulation	12	219	18.3	0.06
L10	Graveyard soil	1	22	22.0	0.00
L11	Mortar spread	1	3	3.0	0.00
L12	Demolition layer	11	336	30.5	0.61
L13	Graveyard soil	3	84	28.0	0.09
L19	Demolition debris	3	26	8.7	0.20
L24	Mortar spread	5	744	148.8	0.35
L27	Dump	5	280	56.0	1.00
L32	?Dark earth	5	266	53.2	0.00
L33	Demolition horizon	17	903	53.1	2.12
L35b	Graveyard soil	1	5	5.0	0.00
L58	?Boudican demolition debris	2	18	9.0	0.00
L59	Dirty sand	1	3	3.0	0.00
L60	Graveyard soil	1	34	34.0	0.00
L64	Levelling/dump layer	6	78	13.0	0.23
L67	Dump/demolition layer	3	17	5.7	0.00
Total		157	5,038	32.1	6.30

Table 7 Quantities of Late Iron Age-Roman pottery from specific contexts.

Assemblage as a whole

The assemblage of Roman pottery includes material spanning from the early Roman to the late Roman period. The earliest material includes a sherd (5g) of Lyon coloured-coated ware (fabric EB) from L35, a base from a Pompeian-red ware 1 (Campanian) dish (fabric CS A) from L27 and Gallo-

Belgic terra nigra (fabric GAB TN1) Cam 16 platters (EVE:0.13) from F37 and L12 (Fig 28.1). There was a small quantity of plain southern Gaulish (La Graufesenque) samian (fabric BASG) including sherds from the Drag. 18 dish and Drag. 27 cup. Later Samian included a Lezoux Drag. 31 dish with a stamp of Sanucius I die 1a (NOTS 8, 89), dating to AD 150-180, from L8 (Fig 28.2) and an east Gaulish Drag. 45 mortaria from L33.

Demolition layer L12 contains a small assemblage of Roman pottery (eleven sherds at 336g, EVE:0.61) dating to the Neronian period. Noteworthy material included a southern French Gauloise 4 wine amphora (EVE:0.20) which dates from c AD 50 onwards (Fig 28.3) and a Spanish Baetican Dressel 20C olive oil amphora (EVE:0.22), which is dated to c AD 50-70 (Fig 28.4). In fabric DJ there is a small fragment from a Cam 154/155 flagon (EVE:0.01) dating to AD 43-69 while a Cam 154 flagon (EVE:1.00) in fabric DJ came from L27 (Fig 28.5).

The later Roman period is represented by a small assemblage (seventeen sherds at 903g, EVE:2.12) recovered from L33 although it is possible that this deposit could date to the post-Roman period. Noteworthy material included an Oxfordshire-type red colour-coated ware (fabric MP) Cam 316 bowl (EVE:0.21) dating from the late 3rd century onwards, although at Colchester this material is typically recovered from the latest Roman contexts. There is north African Mauretania (Algeria and Morocco) Dressel 30/Keay 1 amphora (EVE:0.33) (Fig 28.6). This dates to c AD 200-400 and contained between 20-25 litres of wine although previously olive oil was suggested as the contents (Keay 1984, 95-99; Bonifay 2005a; Williams & Carreras 1995, 242-244). The shape of the rim suggests it is from the later Keay 1B variant, dating to c AD 280-400 (Bonifay 2005b; Keay 1984, 95-99) and provides important evidence for the continuing long-distance trade of goods and commodities to late Roman Colchester. The Dressel 30/Keay 1 is an uncommon find in Roman Britain with only around four other findspots (Tyers 2022) and this is the first example from Colchester, which in contrast to other major Romano-British settlements, such as Exeter, York, London, etc. (Williams & Carreras 1995) tends to be impoverished in terms of the quantity and types of North African amphorae (Symonds & Wade 1999). Four examples of the Dressel 30/Keay 1 came from a Roman barrow burial at Holborough in Kent (Peacock 1977, 265 fig. 1.5) while vessels have been found at Exeter (Williams & Carreras 1995, 250 note 12). There was a small quantity of shell-tempered (fabric HD) pottery including a Cam 532 jar (EVE:0.20) dating to c AD 350/375-425 (Fig 28.7). There was a Hadham (fabric CH) Cam 299? jar (EVE:0.23) dating from the early/mid-3rd century AD onwards (Fig 28.8) and a Dorset BB1 (fabric GA) Cam 305B bowl (EVE:0.09) dating from AD 275 onwards (Fig 28.9). There was a Cam 505 Oxford mortaria (fabric TN) (EVE:0.10) dating from AD 250/275 onwards while several Cam 268 jars (EVE 0.61) in fabrics BSW 2 and GX (Fig 29.10) were also recovered from L33.

Finally, a grey ware base from L9 has an internal mortar deposit (Fig 29.11).

7.1.2 Medieval, post-medieval and modern pottery (Appendix 2)

Post-Roman pottery was recorded according to the fabric groups from CAR 7 (Cotter 2000) (Table 8) while the number of vessels was determined by rim EVE (estimated vessel equivalent). There was a

moderate sized assemblage at 166 sherds with a weight of 3,715g and EVE of 2.65 (Tables 9-10). The mean sherd weight is 22.4g. Post-Roman pottery was recovered from twenty contexts which consists of fifteen features and five layers (Table 9). The largest assemblages in terms of the sherd count came from the graveyard soils (Table 9).

Fabric code	Fabric description	Fabric date range guide
F12A	Early Medieval shelly wares without sand	1000-1225
F12B	Early Medieval slightly sandy shelly wares	1000-1225
F12C	Early Medieval slightly sandy shelly wares (sand predominant)	1000-1225
F13	Early Medieval sandy wares	1000-1225
F13T	Early Medieval sandy wares transitional	1100-1225
F20	Medieval sandy greyware	1200-1550
F21	Colchester-type ware	1200-1550
F22	Heddingham ware	c 1140-1325/1350
F40	Post-medieval red earthenwares	1500-1800/1900
F40A	Metropolitan slipwares	1600-1800
F42	Surrey/Hampshire Border white ware	1500-1800
F45B	Sieburg stoneware	1300-1600
F45D	Frechen stoneware	1500-1700
F45E	Cologne stoneware	1500-1700
F45D/E	Frechen/Cologne stoneware	1500-1700
F45F	Westerwald stoneware	1600-1800
F45G	Nottingham/Derbyshire stoneware	1675-1800
F45M	Modern English stoneware	1800-2000
F46	Tin-glazed earthenware	1550-1800
F47	Staffordshire-type white stoneware	1725-1775/1800
F48D	Staffordshire-type white earthenware	1800-2000
F48E	Yellow ware	1780-2000
F48W	Whieldon-type wares	1740-1800
F50	Staffordshire-type slipware	1650-1800
F51A	Late slipped kitchenware	1800-2000
F51B	Flowerpot	1800-2000

Table 8 Post-Roman pottery fabrics recorded.

Fabric code	Fabric description	No.	Weight (g)	MSW (g)	EVE
F12A	Early Medieval shelly wares without sand	1	36	36.0	0.08
F12B	Early Medieval slightly sandy shelly wares	1	124	124.0	0.09
F12C	Early Medieval slightly sandy shelly wares (sand predominant)	2	20	10.0	0.09
F13	Early Medieval sandy wares	14	136	9.7	0.08
F13T	Early Medieval sandy wares transitional	2	75	37.5	0.00
F20	Medieval sandy greyware	8	145	18.1	0.20

F21	Colchester-type ware	12	242	20.2	0.06
F22	Heddingham ware	1	7	7.0	0.00
F40	Post-medieval red earthenwares	44	1,134	25.8	0.88
F40A	Metropolitan slipwares	4	153	38.3	0.07
F42	Surrey/Hampshire Border white ware	10	187	18.7	0.25
F45B	Sieburg stoneware	1	15	15.0	0.00
F45D	Frechen stoneware	6	253	42.2	0.18
F45E	Cologne stoneware	1	4	4.0	0.00
F45D/E	Frechen/Cologne stoneware	1	99	99.0	0.00
F45F	Westerwald stoneware	11	109	9.9	0.10
F45G	Nottingham/Derbyshire stoneware	1	3	3.0	0.00
F45M	Modern English stoneware	9	490	54.4	0.15
F46	Tin-glazed earthenware	3	8	2.7	0.00
F47	Staffordshire-type white stoneware	5	57	11.4	0.16
F48D	Staffordshire-type white earthenware	10	147	14.7	0.13
F48E	Yellow ware	1	9	9.0	0.00
F48W	Whieldon-type wares	1	10	10.0	0.00
F50	Staffordshire-type slipware	15	177	11.8	0.13
F51A	Late slipped kitchenware	1	58	58.0	0.00
F51B	Flowerpot	1	17	17.0	0.00
Total		166	3,715	22.4	2.65

Table 9 Summary of the post-Roman pottery.

Fabric Group	Form	EVE
F12A	All	0.08
	COOKING POT A2	0.08
F12B	All	0.09
	COOKING POT A4B	0.09
F12C	All	0.09
	COOKING POT A4B	0.09
F13	All	0.08
	COOKING POT A4B	0.03
	COOKING POT C1	0.05
F20	All	0.20
	JUG	0.20
F21	All	0.06
	LID SEATED COOKING POT	0.06
F40	All	0.88
	DISH	0.28
	DRIPPING PAN	0.08
	LARGE BOWL/PANCHEON	0.11
	LARGE STORAGE JAR	0.09
	LARGE STORAGE JAR/CISTERN	0.10

Fabric Group	Form	EVE
	SMALL HANDLED JAR/CHAMBERPOT	0.05
	SMALL-STRAIGHT SIDED BOWL	0.17
F40A	All	0.07
	DISH	0.07
F42	All	0.25
	?	0.09
	DEEP BOWL	0.11
	DEEP DISH	0.05
F45D	All	0.18
	JUG/MUG	0.18
F45F	All	0.10
	TANKARD	0.10
F45M	All	0.15
	JAR	0.15
F47	All	0.16
	PLATE	0.16
F48D	All	0.13
	CUP	0.05
	PLATE	0.08
F50	All	0.13
	PRESS-MOULDED DISH	0.13
Total		2.65

Table 10 Post-Roman pottery quantification via vessel form.

Context	Feature type	No.	Weight(g)	MSW (g)	EVE
F1	Inhumation burial	6	88	14.7	0.00
F2	Burial chamber	1	23	23.0	0.08
F25	Metalling/metalled surface	2	33	16.5	0.00
F27	Inhumation burial	1	9	9.0	0.05
F31	Pit	3	43	14.3	0.08
F33	Inhumation burial	17	169	9.9	0.13
F35	Pit	9	121	13.4	0.17
F36	Pit	1	30	30.0	0.00
F37	Inhumation burial	13	163	12.5	0.00
F38	Inhumation burial	15	227	15.1	0.17
F39	Inhumation burial	1	3	3.0	0.00
F45	Inhumation burial	1	124	124.0	0.09
F56	Inhumation burial	1	32	32.0	0.00
F63	Inhumation burial	1	9	9.0	0.00
F70	Unidentified cut feature	4	56	14.0	0.05
L2	Graveyard soil	43	1,045	24.3	0.97
L7	Graveyard soil	5	116	23.2	0.00

Context	Feature type	No.	Weight(g)	MSW (g)	EVE
L8	Graveyard soil	5	78	15.6	0.05
L13	Graveyard soil	33	1,297	39.3	0.77
L60	Graveyard soil	3	44	14.7	0.04
US	Unstratified	1	5	5.0	0.00
Total		166	37,15	22.4	2.65

Table 11 Quantities of post-Roman pottery from specific contexts.

The earliest material dates from the 11th to early 13th century and consists of early Medieval cooking pots (types A2, A4B, C1) in fabrics F12A (Fig 30.12), F12B (Fig 30.13), F12C (Fig. 30.14) and F13 (Table 10). There is also a small quantity of Medieval sandy-greywares (fabric F20), including a jug (EVE:0.20), and Colchester-type ware (fabric F21) including a lid-seated cooking pot (EVE:0.06) dating to the 15th century. A considerable proportion of the medieval pottery is residual and comes from post-medieval and/or modern contexts, notably from the layers L2, L7, L8, L13 and L60. However, pit F31 which contained sherds of fabric F13 and a F12A cooking pot of type A2 (EVE:0.08) (Fig 30.12) could date to the 11th century.

A variety of post-medieval and modern pottery accounts for a sizeable proportion of the post-Roman assemblage (Table 9). Post-medieval red earthenwares (fabric F40) and the related fabric F40A are well represented in the assemblage at forty-eight sherds with a weight of 1,287g and EVE of 0.95 (Tables 9-10). Again, a substantial proportion of this material came from the graveyard soils and accumulations (L2, L7, L8, L13 & L60) and the burials features (F1, F33, F37 & F38). Various vessels are represented in post-medieval red earthenwares (Table 10) with dishes (EVE:0.28) (Fig 30.15) and small-straight sided bowls (EVE:0.17) being the most common forms. Other post-medieval red earthenwares vessels included a dripping pan (EVE:0.08) from L13 (Fig 30.16) and a large bowl/pancheon (EVE:0.11) from L2. A Metropolitan slipware (fabric F40A) dish (EVE:0.07) came from L2.

There is a small assemblage of Westerwald stoneware (fabric F45F), dating to 1600-1800, at eleven sherds with a weight of 109g and EVE of 0.10 including a tankard from F33 which also contained a small sherd (3g) of Nottingham/Derbyshire stoneware (fabric F45G). Cologne and/or Frechen stoneware consists of eight sherds with a weight of 356g (Table 9), which mostly came from L2 and L3 including a jug/mug (EVE:0.18). A modern stoneware (fabric F45M) bottle/jar with a stamp of STEPHEN GREEN'S GLASS LINED INSIDE which has a glass lining (Fig 31.17) came from L13. There is a small assemblage of Staffordshire-type slipware (fabric F50) mostly from press-moulded dishes (EVE:0.13) with combed decoration and piecrust rims (Cotter 2000, 248). Examples were recovered from F1, F37, F38, L12 and L13. There was also a sherd from a Staffordshire-type slipware (fabric F50) porringer which came from F37. Staffordshire-type white stoneware (Fabric F47) plates, dating to 1725-1775/1800, were recovered from L2. One (EVE:0.04) with a basket-pattern decoration and a second with a dot, diaper and basket pattern (EVE:0.12).

7.1.3 Ceramic building material (CBM) (Appendix 7)

There were 351 fragments of CBM with a weight of 93.682kg and mean sherd weight of 266.9g (Table 12). CBM consists of a variety of Roman, medieval and post-medieval/modern material and was recovered from forty-two contexts (Table 13). Most contexts contained only small assemblages with eleven or fewer sherds and only a small number of contexts produced a more substantial quantity. The largest assemblage of sixty pieces with a weight of 7,425g came from L12 followed by L2 (39 at 860g) and the L33 (30 at 10,875g) (Table 13).

CBM code	CBM type	No.	Weight (g)	MSW (g)
Roman				
RB	Roman brick	24	22,750	947.9
	Column brick	1	1,783	1783.0
RI	Roman imbrex	22	3,449	156.8
RT	Roman tegulae	52	25,049	481.7
RBT	Roman brick or tile (general)	32	1,897	59.3
RFT	Roman flue-tile	15	6,558	437.2
TESS	Tesserae	9	152	16.9
Op. sig.	Opus signinum	1	349	349.0
Daub BR	Daub brick	21	12,953	616.8
WP	Wall plaster	64	7,493	117.1
Post-Roman				
PT	Peg-tile	37	1,531	41.4
PANT	Pan-tile	2	55	27.5
BR	Brick	15	6,884	458.9
FT	Floor tile	1	75	75.0
Un-dated				
Unid. CBM		17	177	10.4
Baked clay		7	22	3.1
Mortar		24	2,498	104.1
Daub		7	7	1.0
Total		351	93,682	266.9

Table 12 Building material by period and type.

Context	Description	No.	Weight (g)	MSW (g)
F1	Inhumation burial	11	188	17.1
F2	Burial chamber	1	3,272	3272.0
F10	Burial chamber	1	3,239	3239.0
F20	Burial chamber	5	59	11.8
F25	Metalling / metallated surface	4	941	235.3
F27	Inhumation burial	4	11	2.8
F28	Inhumation burial	3	243	81.0

F29	Part of F25 or foundation	1	5,136	5136.0
F32	Possible pit	3	80	26.7
F33	Inhumation burial	26	1,629	62.7
F35	Pit	9	638	70.9
F36	Pit	1	16	16.0
F37	Inhumation burial	1	12	12.0
F38	Inhumation burial	1	9	9.0
F39	Inhumation burial	2	12	6.0
F52	Inhumation burial	8	3,799	474.9
F54	Clay block wall	18	4,678	259.9
F61	Robber trench	3	1,780	593.3
F63	Inhumation burial	1	15	15.0
F70	Unidentified cut feature	2	48	24.0
F78	?Robber trench	1	67	67.0
F80	Metalling	2	427	213.5
L2	Graveyard soil	39	860	22.1
L7	Graveyard soil	1	26	26.0
L8	Graveyard soil	2	39	19.5
L9	Accumulation	3	518	172.7
L10	Graveyard soil	2	433	216.5
L12	Demolition layer	60	7,425	123.8
L13	Graveyard soil	27	414	15.3
L16	Graveyard soil	4	419	104.8
L19	Demolition debris	2	989	494.5
L24	Mortar spread	2	433	216.5
L27	Dump	18	13,520	751.1
L32	?Dark earth	16	14,474	904.6
L33	Demolition horizon	30	10,875	362.5
L35B	Graveyard soil	11	6,386	580.5
L41	Fill of robber trench	3	599	199.7
L44	Demolition layer	11	3,047	277.0
L46	Demolition layer	3	3,455	1151.7
L51	Reposited demolition debris	1	9	9.0
L58	?Boudican demolition debris	2	238	119.0
L64	Levelling/dump layer	2	1,935	967.5
US	Unstratified	4	1,289	322.3
Total		351	93,682	266.9

Table 13 Quantities of CBM from specific contexts.**Roman CBM** (Table 14)

Roman CBM accounts for a sizeable proportion of the CBM assemblage at 241 fragments with a weight of 82.4kg and MSW of 342.0g. This represents 68.5% of the CBM assemblage by sherd count and 87.9% of the CBM weight. This material was recovered from thirty-five contexts (sixteen features

and nineteen layers), and a considerable proportion of this material comes from contexts dating to the Roman period. The largest assemblage of Roman CBM from a context dating to the Roman period is sixty pieces weighing 7,425g from L12, followed by L27 at eighteen pieces at 13.5kg (Table 14).

Context	Description	No.	Weight (g)	MSW (g)
F1	Inhumation burial	3	78	26.0
F20	Burial chamber	4	33	8.3
F25	Metalling / metalled surface	4	941	235.3
F27	Inhumation burial	2	5	2.5
F28	Inhumation burial	3	243	81.0
F29	Part of F25 or foundation	1	5,136	5136.0
F32	Possible pit	3	80	26.7
F33	Inhumation burial	4	510	127.5
F35	Pit	7	568	81.1
F36	Pit	1	16	16.0
F38	Inhumation burial	1	9	9.0
F52	F52a Inhumation burial / F52b Floor	8	3,799	474.9
F54	Clay block wall	17	4,311	253.6
F61	Robber trench	3	1,780	593.3
F78	?Robber trench	1	67	67.0
F80	Metalling	2	427	213.5
L2	Graveyard soil	4	77	19.3
L7	Graveyard soil	1	26	26.0
L9	Accumulation	3	518	172.7
L10	Graveyard soil	2	433	216.5
L12	Demolition layer	60	7,425	123.8
L13	Graveyard soil	6	175	29.2
L16	Graveyard soil	4	419	104.8
L19	Demolition debris	2	989	494.5
L24	Mortar spread	2	433	216.5
L27	Dump	18	13,520	751.1
L32	?Dark earth	16	14,474	904.6
L33	Demolition horizon	29	10,421	359.3
L35B	Graveyard soil	7	5,014	716.3
L41	Fill of robber trench	3	599	199.7
L44	Demolition layer	11	3,047	277.0
L46	Demolition layer	3	3,455	1151.7
L51	Reposited demolition debris	1	9	9.0
L58	?Boudican demolition debris	2	238	119.0
L64	Levelling/dump layer	2	1,935	967.5
US	Unstratified	1	1,223	1223.0
Total		241	82,433	342.0

Table 14 Quantities of Roman CBM from specific contexts.

Noteworthy aspects of the Roman CBM includes the recovery of two Roman roof tiles (238g) from L58 and one column brick (one quarter/diam:215 mm?) from L46. Finally, a possible *pedalis* brick came from F29.

Tegulae lower cut-aways (LCA's) (Table 15)

There were 13 tegula LCA's which were classified according to the types outlined and discussed in Warry (2006, 3-4, 22-28, 43-45, 61-64). It is worth noting the presence of the latest cut-aways (D1) from L32.

Context	Feature type	LCA			
		A AD 40-120	B AD 100-180	C AD 160-260	D AD 240-380
F52	F52a Inhumation burial / F52b Floor	-	-	C5	-
L27	Dump	A28	-	-	-
L32	? Dark earth	A?	-	C4 C5/56	D1 D?
L33	Demolition horizon	A28	-	C5/56 x 2	-
L35B	Graveyard soil	A26 A?	-	-	-
L64	Levelling/dump layer	-	B6	-	-

Table 15 Summary of the Roman tegulae LCA's.

Roman flue-tile (Table 16)

There was a small assemblage of Roman flue-tile at fifteen pieces with a weight of 6,558g and MSW of 437.2g. This material was recovered from two features and four layers while the largest assemblage came from L33. There was a large fragment of flue-tile with a roller-stamped decoration (Fig 31.18) which was unstratified. The design (die 71) can be exactly paralleled with examples recovered from the Roman Billingsgate bath house in London, which was built during the late 2nd/early 3rd century AD and remained in use until the early 5th century (Betts *et al.* 1997, 128-129). There are several explanations for the presence of flue-tiles with the same designs being recovered from London and Colchester. Examples manufactured in London may have ended up being used in Colchester or the same potter worked at both London and Colchester; potters during the Roman period were often itinerant and could move around the country or set up satellite pottery workshops. It is possible that the wooden roller stamped die itself ended up in the hand of a Colchester potter. The fabric of the roller stamped flue-tile is not distinctive and it is not possible to tell whether it is of non-Colchester provenance. Most of the other flue-tile fragments are combed while some examples have circular vents with diameters of 45mm and 65mm. Finally, a flue-tile with a rectangular vent (90mm) also came from F61.

Context	Description	No.	Weight (g)	MSW (g)
F52	F52a Inhumation burial / F52b Floor	2	1,123	561.5
F61	Robber trench	2	1,266	633.0
L32	?Dark earth	1	272	272.0
L33	Demolition horizon	7	2,083	297.6
L35B	Graveyard soil	1	357	357.0
L41	Fill of robber trench	1	234	234.0
US	Unstratified	1	1,223	1223.0
Total		15	6,558	437.2

Table 16 Quantities of Roman flue-tile from specific contexts.**Daub bricks** (Table 17)

Daub bricks were recovered from three layers and one feature although a sizeable proportion came from clay block wall F54. The daub bricks range from 78mm to 90mm in thickness while one example has a measurable breadth of 105mm.

Context	Description	No.	Weight (g)	MSW (g)
F54	Clay block wall	12	3,636	303.0
L16	Graveyard soil	3	206	68.7
L27	Dump	3	7,224	2,408.0
L44	Demolition layer	3	1,887	629.0
Total		21	12,953	616.8

Table 17 Quantities of Roman daub bricks from specific contexts.**Tesserae** (Table 18)

There was a small quantity of tesserae although these were mostly recovered from post-Roman contexts.

Context	Description	No.	Weight (g)	MSW (g)
F1	Inhumation burial	1	16	16.0
F28	Inhumation burial	2	45	22.5
F36	Pit	1	16	16.0
F38	Inhumation burial	1	9	9.0
L2	Graveyard soil	2	36	18.0
Total		9	152	16.9

Table 18 Quantities of Roman tesserae from specific contexts.**Roman painted wall-plaster** (Tables 19-20)

There was a small collection of painted wall-plaster at sixty-four fragments with a weight of 7,493g and a painted surface area of 1,549cm². Painted wall-plaster was recovered from five contexts of which a considerable proportion came from L12. The painted wall plaster is heavily fragmented with a low

mean weight and also low mean surface area (MCM²). Red painted wall-plaster is the most common colour while one piece (12 cm²) with a pink background was decorated with yellow, white and rare black splashes and dots. Graffiti of thinly inscribed curves and/or semi circles were noted on red painted wall plaster from L12. Painting guidelines were also noted on one sherd while some fragments have evidence for overpainting/repainting with earlier colours showing through.

Context	Description	No.	Weight (g)	MSW (g)	cm ²	MCM ²
F1	Inhumation burial	1	3	3.0	3	3.0
L7	Graveyard soil	1	26	26.0	2	2.0
L9	Accumulation	1	30	30.0	9	9.0
L12	Demolition layer	60	7,425	123.8	1,532	25.5
L51	Redeposited demolition debris	1	9	9.0	3	3.0
Total		64	7,493	117.1	1,549	24.2

Table 19 Quantities of Roman wall-plaster from specific contexts.

Colour	cm ²
BLACK	125
BLACK & RED	22
BLACK, RED & WHITE	42
PINK	3
PINK, YELLOW & BLACK	4
PINK, YELLOW, WHITE & BLACK	12
RED	1,173
RED & BLACK	81
RED & ORANGE	33
WHITE	9
YELLOW & WHITE	45
Total	1,549

Table 20 Summary of the painted wall-plaster.

Post-Roman CBM

Peg-tile (Table 21)

There was a modest assemblage of medieval/post-medieval peg-tile at thirty-seven fragments with a weight of 1.5kg which was recovered from six features and three layers. A considerable proportion of the peg-tile came from the graveyard soils.

Context	Description	No.	Weight (g)	MSW (g)
F1	Inhumation burial	3	91	30.3
F20	Burial chamber	1	26	26.0
F27	Inhumation burial	1	4	4.0
F33	Inhumation burial	11	738	67.1

F63	Burial chamber	1	15	15.0
F70	Unidentified cut feature	1	41	41.0
L2	Graveyard soil	10	438	43.8
L8	Graveyard soil	2	39	19.5
L13	Graveyard soil	6	108	18.0
US	Unstratified	1	31	31.0
Total		37	1,531	41.4

Table 21 Quantities of medieval/post-medieval peg-tile from specific contexts.**Brick** (Table 22)

There was a small assemblage of unfroged bricks at fifteen fragments with a weight of 6.8kg and MSW of 458.9g. This material was recovered from four features and two layers. A complete late 18th to early 19th century un-froged brick with dimensions of 230mm x 110mm x 65mm came from burial chamber F2. Chamber F10 produced a complete unfroged brick with dimensions of 235mm x 117mm x 65mm which dates from the late 18th century onwards.

Context	Description	No.	Weight (g)	MSW (g)
F2	Burial chamber	1	3,272	3,272.0
F10	Burial chamber	1	3,239	3,239.0
F33	Inhumation burial	2	211	105.5
F70	Unidentified cut feature	1	7	7.0
L2	Graveyard soil	3	79	26.3
L13	Graveyard soil	5	41	8.2
US	Unstratified	2	35	17.5
Total		15	6,884	458.9

Table 22 Quantities of post-Roman brick specific contexts.**Floor tile**

A small fragment (75g) of floor tile with a dark glaze came from L13.

7.1.4 Conclusion

Table 23 summarizes the spot dating evidence for the contexts which had dateable pottery and CBM. Many of the contexts are later that the spot date suggests with a high level of residuality among the finds.

Context	Description	LIA-Roman pottery	Post-Roman pottery	CBM	Ceramic spot date approx.
F1	Inhumation burial	GX (lid)	F40, F42, F47, F50 (dish)	RB, TESS, WP, PT	AD 1725-1750
F2	Burial chamber	WA	F48D	BR (UF)	Late 18th/early 19th century
F10	Burial chamber	-	-	BR (UF)	Late 18th/early 19th century

Context	Description	LIA-Roman pottery	Post-Roman pottery	CBM	Ceramic spot date approx.
F20	Burial chamber	-	-	RI, PT	Post-medieval
F25	Metalling/ metalled surface	BAET (DR20), EA, GB, GX, GX/47, TD	F13	RB, RI, RT	Medieval
F26	Pit/pits	CH, GB (CAM 40B), GX (CAM 268)	-	-	Mid/late 3rd century
F27	Inhumation burial	-	F40 (small handled jar/chamberpot)	RBT, PT	Mid/late 17th century
F28	Inhumation burial	HD, GX (CAM 268), KX (CAM 37B/38B, CAM 305B), TG	-	RT, TESS	Late Roman
F29	?Part of F25 or foundation	-	-	RB (PEDALIS)	ROMAN
F31	Pit	GA (CAM 39A), GB (CAM 37B/38B), GX, HD	F12A (cooking pot A2), F13		11th century
F32	Possible pit	-	-	RI, RT	Roman
F33	Inhumation burial	EA, GB (CAM 37B/38B), GX	F21, F40 (dish), F40A, F42, F45F (tankard), F45G, F48D	RT, PT, BR (UF)	19th century
F34	Robber trench	GB, GX	-	-	Roman
F35	Pit	DA, GA, GB (CAM 37B/38B)	F12C (cooking pot A4B), F13 (cooking pot A4B, C1), F13T, F40	RB, RI, RT	Post-medieval
F36	Pit	-	F13T	TESS	Medieval
F37	Inhumation burial	GAB TN (CAM 16), GB	F40, F40A, F45M, F50 (press moulded dish, porringer)	-	early 19th century
F38	Inhumation burial	BSW 3 (CAM 307), GX (beaker), NARB	F40 (small straight- sided bowl), F45B, F46, F48D, F50 (press moulded dish)	TESS	19th century
F39	Inhumation burial	BASG (DRAG 27)	F21	-	Medieval
F45	Inhumation burial	-	F12B (cooking pot A4B)	-	Medieval
F52	F52a Inhumation burial / F52b Floor	-	-	RB, RI, RT (LCA C5)	Roman
F54	Clay block wall	-	-	RB, RI, RT, DAUB-BR	Roman
F56	Inhumation burial	-	F45D (jug)	-	16th-17th century
F61	Robber trench	-	-	RI, RFT	Roman
F63	Inhumation burial	-	F48D	PT	19th century
F70	Unidentified cut feature	-	F21, F40 (dish), F45F	BR, PT	17th century
F75	Robber trench	GX	-	-	Roman?
F78	?Robber trench	GX, MP	-	RBT	Late Roman
F80	Metalling	GX	-	RT	Roman
L2	Graveyard soil	BASG (DRAG 18, DRAG 27), BSW 2, DJ, GB, GX,	F13, F20 (jug), F21 (lid seated cooking-	RBT, TESS, PANT, PT, BR	19th century

Context	Description	LIA-Roman pottery	Post-Roman pottery	CBM	Ceramic spot date approx.
		HZ, TZ (COL WH) (CAM 497)	pot), F22, F40 (large bowl/pancheon, dish), F40A (dish), F42 (deep dish), F45D/E, F45E, F45F (tankard), F45M (bottle), F47 (plate), F48D (cup), F50 (press-moulded dish), F51B		
L7	Graveyard soil	GB (CAM 40B), HZ (CAM 273), GX	F13, F21, F40, F42	WP	Post-medieval
L8	Graveyard soil	BACG (DRAG 31, DRAG 33), GB (CAM 40A), GX, KX (CAM 37B/38B)	F13, F20, F40 (dish)	PT	Post-medieval
L9	Accumulation	GB (CAM 40A), GX	-	RT, TESS, WP	2nd century
L10	Graveyard soil	GB	-	RT	Roman
L11	Mortar spread	FJ	-	-	Early Roman
L12	Demolition layer	BAET (DR20C), DJ (CAM 154/155), GAB TN (CAM 16), GX (CAM 507), NARB (G4)	-	WP	Neronian
L13	Graveyard soil	BSW 1, DJ, TZ (COL WH) (CAM 497)	F13, F20, F21, F40 (dripping pan, dish, large storage jar, large storage jar /cistern), F42 (deep bowl), F45D (jug, jug/mug), F45F, F45M (bottle/jar, jar, jug), F48D, F48E, F48W, F50 (dish), F51A (storage jar)	RT, TESS, BR, PT, FT	19th century
L16	Graveyard soil	-	-	DAUB-BR, RBT	Roman
L19	Demolition debris	DJ, GX (CAM 108)	-	RB, RT	Roman
L24	Mortar spread	DJ (CAM 110), HZ (BSW), TZ (CAM 504/505)	-	RT	3rd century
L27	Dump	CS (A), DJ (CAM 154), NARB, TZ, WA	-	RB, RI, RT (LCAA28), DAUB-BR	early Roman
L32	?Dark earth	CH (CAM 316), GB, GX, HD, MR (CAM 316)	-	RB, RI, RT (LCAA?, C4, C5/56, D1), RFT	late Roman
L33	Demolition horizon	BAEG (DRAG 45), BSW 2 (CAM 268), CH (CAM 299?), GA (CAM 305A), GB (CAM 40A, CAM 305B), GX (CAM 268), HAD RE1, HD (CAM 532), KX (CAM 305B), MP (CAM 316), NAF AM (D30/K1B), TN (CAM 505)	-	RB, RI, RT (LCAA28, C5/56, RFT, OP SIG	Mid/late 4th century
L35B	Graveyard soil	EB	-	RB, RT (LCA	Roman

Context	Description	LIA-Roman pottery	Post-Roman pottery	CBM	Ceramic spot date approx.
				A26), RFT	
L41	Fill of robber trench	-	-	RB, RI, RFT	Roman
L44	Demolition layer	-	-	RB, RI, RT, DAUB-BR	Roman
L46	Demolition layer	-	-	RB, COLM BR	Roman
L51	Redeposited demolition debris	-	-	WP	Roman
L58	?Boudiccan demolition debris	DJ (FLAGON)	-	RT	Roman
L59	Dirty sand	DJ (S)	-	-	Roman
L60	Graveyard soil	DJ	F20, F21, F40 (dish)	-	Post-medieval
L64	Levelling/dump layer	DJ (S), GX (CAM 268), KX (CAM 278)	-	RT (LCA B6)	2nd century
L67	Dump/demolition layer	DJ, GX	-	-	Roman
US	US	-	F40	BR, PT	-

Table 23 Ceramic spot dates for the individual contexts.

BR(U) = unfrosted brick

LCA = lower cut away (tegula)

for all other abbreviations see Table 12.

7.2 Small finds (Appendix 8)

by Laura Pooley

This report is divided into three sections, 1) the coins, jettons and tokens, 2) the Roman small finds and 3) the post-Roman small finds. Items of coffin furniture (including those assigned a small find number) are discussed separately in Section 7.3 below.

Forty-nine small find numbers were assigned to individual objects/groups of objects from St Nicholas Square. They came from seventeen different contexts, with thirty-four (69%) recovered with a metal-detector from post-medieval graveyard soils L2, L8, L10 and L13. All the Roman small finds were residual finds from later contexts.

The small finds are primarily of post-medieval date (28) but included some Roman (11), modern (2) and undated (8) finds. Most were made of copper-alloy (31), but the assemblage includes those made of gold (1), lead (10), bone (2), pipeclay (3) and stone (2).

A full catalogue of all forty-nine entries can be found in Appendix 4.

7.2.1 Coins, jettons and tokens

Roman coins

There were ten Roman coins. Eight were recovered from post-medieval graveyard soils (L2, L13), one from post-medieval metallised surface F25, and the last was an unstratified find from the soil heap, all found with a metal-detector. The coins were in variable condition ranging from good to poor, with three broadly identifiable, four contemporary copies and two illegible coins that are probably of Roman date. A full catalogue of the coins is presented alongside the rest of the small finds in Appendix 4, with ClfA's Roman Coin Identification Table included as part of the digital archive.

Four coins date to the later 3rd century and four to the 4th century. There is a *quinarius* of Allectus, minted in London and dated AD 293-296 (SF15), and three barbarous radiates dating to the period c AD 260-296 (SF16, SF17 and SF32). There are two city commemorative coins of Rome (VRBS ROMA) (SF28) and Constantinople (CONSTANTINOPOLIS) (SF8) dating to AD 330-340, and two 4th-century contemporary copies. The copies are the reverse types of GLORIA EXERCITVS (SF9) and VICTORIAE DD AVGGQ NN (SF18).

Post-medieval and modern coins, jettons and tokens

There were five post-medieval coins, five post-medieval lead tokens, a post-medieval jetton and two modern coins. Found in the graveyard soil (L2, L13) with a metal-detector, they are all of fair to poor condition and date from the 17th century onwards.

Four of the coins date to the 17th century. They are a 1613-14 royal farthing token of James I (SF7), a 1694 farthing of William and Mary (SF6), a 1697 halfpenny of William III (SF4) and another William III halfpenny dating from 1695-1701 (SF5). The 20th-century coins are a 1904 penny of Edward VII (SF3) and a 1933 halfpenny of George V (SF2). The last coin is illegible but probably of post-medieval date (SF27).

The jetton (SF26) is virtually illegible with just enough surviving to identify it as such. All five of the lead tokens are of a different size, shape and design, and are generally in a poor condition. Three are round, the first (SF10) has a bust on one side and a triquetra (three-legged figure) on the other, the second (SF11) also has a bust on one side but the other side is illegible, and the third (SF21) has a square design on both sides with the outline of impressed pellets on one side. A heptagon-shaped token has a raised T on the front (SF20). The last is a small rectangular token with a raised diagonal line on one side with a star in each half (SF12). Lead tokens had a wide variety of possible uses such as tallies, gaming pieces, tickets, weights. They are believed to have been locally produced making them difficult to date, although most are thought to be post-medieval.

7.2.2 Roman small finds

Other than the coins, the only Roman small find was two conjoining gold finger-rings (SF1) (Fig 32.1). Unfortunately, this amazing find was also metal-detected from post-medieval graveyard soil. Despite being removed from its original context, the presence of such a find shows that this was a high-status part of the Roman town.

Small and probably made for a child, both rings are complete if now slightly distorted, and conjoin along the plain hoops. Ring A has a flat, oval bezel which is decorated with 25 soldered gold pellets arranged in a diamond shape pattern. Ring B had a flat, elongated, pointed-oval bezel decorated with three short strands of soldered gold wire. The wire forms a central circle with a drop-shape on either side, which might represent a flower. It is also possible that each of the three pieces of wire were originally inlaid.

In her categorisation of finger-rings from southern Britain, both examples would fall within Cool's Group V – simple finger-rings with relief decorations (Cool 1983, 238-9, 1024). Group V, sub-group A is described as a homogeneous group with raised, diamond-shaped, pelleted bezels in use during the mid-1st century AD. All other examples of finger-rings with relief decoration, no matter what the decorative design, were placed in sub-group B, and dated from the 1st to 3rd century.

7.2.3 Post-Roman small finds

There was seventeen post-Roman small finds, one dates to the late medieval/early post-medieval period, but the rest are post-medieval. Nine were recovered from graveyard soil, with those items of metal found with a metal-detector. The remaining seven items were found within six inhumation burials.

The following section is laid out based on the categorisation system for small finds devised by Nina Crummy for *Colchester Archaeological Report 5: The post-Roman small finds from excavations in Colchester 1971-85* (1988). This is based on categorisation by function rather than by material(s) of manufacture (CAR 5, 1).

There were two items of personal adornment or dress, both complete and of copper-alloy, which came from the graveyard soil (L2). The first (SF14) was a cast one-piece button with integral undrilled shank, dated from the late 15th to 16th century (Bailey 2016, 29; Read 2010, 61) (Fig 32.2). The second (SF13) two-piece Jacobean shoe buckle with heart-shaped chape dating from 1690-1720 (Whitehead 1996, Chapter IX) (Fig 32.3).

Toilet, surgical or pharmaceutical instruments consisted of three wig-curlers (SF44-SF46), two of which were complete, also from graveyard soils (L13). One of the complete examples include the maker's initials WB in incuse at each end of the curler (Fig 32.4). The initials are surmounted by a three-pronged crown or coronet which has been dated to the period c 1750-1800 (Le Cheminant 1982, 190).

A bone object from F62 (SF47) could be a tuning peg from a musical instrument (object used for recreational purposes) (Fig 32.5).

The only military items were two pieces of lead shot/musket balls (SF29-SF30) recovered from the graveyard soils (L13).

Religious items were recovered from inhumation burials (F30, F39, F41, F45) and graveyard soils (L13). These copper-alloy dress pins (SF25, SF35, SF37, SF40), copper-alloy upholstery studs (SF31, SF36) and lead burial plaque (SF42) are discussed in Section 7.3 below.

Two very small copper-alloy rings (c 11mm diameter) were found in inhumation burials F37 (SF34) and F55 (SF38). Their function is uncertain, and they could be residual within these features, but as they came from burials they have been included in this post-Roman section. It is possible that they could be from chains used as dress fasteners.

7.2.4 Undated small finds

A decorated solid bone shaft from F38 (SF43) could be part of a handle (Fig 32.6) and a stone hone was recovered from F80 (SF49) (Fig 32.7). A fragment of lava quern stone from L2 (SF48) could be of Roman or medieval date. Other undated finds were a copper-alloy strip (SF24), fragment of lead sheet (SF22) and fragments of lead (SF33, SF39).

7.3 Coffin furniture

by Laura Pooley

Coffin furniture was recovered from thirteen inhumation burials. High levels of truncation, methods of discovery and partial excavation of many of the burials meant that quantities of coffin furniture varied widely. Enough coffin furniture was recovered from twelve of the burials to be, at least fairly, certain that these individuals were buried within a coffin. However, inhumation burial F55 only produced two iron coffin studs which are probably residual within the backfill of this grave.

Burial in a coffin became common from the late 17th century onwards with coffin decoration becoming increasingly more elaborate by the early 18th century (Webb & Norton 2009, 173). The outer side and lid panels of coffins were covered in textiles held in place by decorative patterns of round-headed metal upholstery studs, with inner linings glued, stitched and tacked in place (Webb & Norton 2009, 173; Janaway 1998, 21-22). Handles, usually fixed to the coffin using decorative grip plates, were placed at intervals around the outside, normally three to each side and one at each end for an adult-sized coffin, or two per side for a child-sized coffin (Reeve & Adams 1993, 83). Other decorative features could include breastplates, headplates, footplates, lid motifs and escutcheons (Webb & Norton 2009, 174).

Iron coffin nails were recovered from ten burials (F1, F27, F30, F33, F37, F38, F39, F40, F63, F73). Iron handles and/or grip plates came from seven (F1, F37, F38, F39, F40, F52a, F63). Ten were rounded handles with only one squared handle, which was still attached to a virtually complete rectangular grip plate with lobed terminals from F40. Fragments of grip plate from F39 and F63 were in such a poor condition that the shape of the plate could not be determined. Fragments of iron sheet in similarly poor condition were also recovered from F37 and F74, but it was impossible to tell if these were the remains of grip plates or possibly of breast/head/foot plates. Iron upholstery studs were recovered from five burials (F1, F40, F55, F63, F74) with copper-alloy upholstery studs from F41 alone. Predominantly made of iron, these pieces of coffin furniture were in the cheapest metal available (Webb & Norton 2009, 159). The exception to this a rectangular lead plaque from F30 (SF42) which was inscribed **SOPHIA RANSON / Died / 21st February 1824 / Aged 14 Years** (Fig 33.1). Unfortunately, due to the method of discovery it is not known where in the grave the plaque came from, but it was likely to have been positioned over the top half of the body on the lid of the coffin. Breast plates were seen on some of the chambered coffins, but as these were left *in situ* they could not be safely accessed to determine if any of the information originally inscribed onto them could still be read.

Small copper-alloy dress pins were recovered from burials F39 (SF35), F41 (SF40) and F45 (SF37). They could be used as dress/shroud pins to secure burial clothing or could be used within coffins to secure linings and furnishings (Cox 1996, 52). Fragments of dress pin were the only items recovered from burial F45 suggesting that the individual was buried in a shroud and not a coffin.

A lot of residual coffin furniture was recovered from churchyard soils, other contexts and as unstratified finds. These included coffin nails, handles and grip plates, and upholstery studs. The handles were both rounded and squared in shape, with another grip plate with lobed terminals also recorded, a selection of these are illustrated, see Fig 34.2-11.

The iron coffin furniture from St Nicholas Square was in such poor condition that on consultation with Colchester Museum, it was agreed that it should all be discarded. It was also agreed that it was ethically appropriate for the lead burial plaque to be reburied with the remains of Sophia Ranson when they are interred in Colchester Cemetery. All the items of copper-alloy have been retained in the finds archive.

Context	Finds no.	Description
Coffin furniture from inhumation burials		
F1	3	Incomplete iron coffin handle, 54.7g, round in cross section and rounded in shape. Two iron coffin studs, 9.1g, c 18-20mm diameter, c 17mm long. Twenty-two iron coffin nails, 206.2g, highly corroded and fragmentary, some with mineralised wood adhering, square-sectioned with flat round heads.
F27	21	Five iron nails, 29.7g, highly corroded and fragmentary, some with mineralised wood adhering, square-sectioned with flat round heads.
F30	35	Incomplete iron nail, 7.0g.
	28	SF42 – Lead burial plaque. Complete but crumpled. Inscribed SOPHIA RANSON / Died / 21st February 1824 / Aged 14 Years . The plaque has been reburied with the remains of Sophia in Colchester Cemetery.
F33	43	Eleven iron nails, 161.0g, highly corroded and fragmentary, some with mineralised wood adhering, square-sectioned with flat round heads.
	46	Nine iron nails, 96.0g, highly corroded and fragmentary, some with mineralised wood adhering, square-sectioned with flat round heads.
	47	Two iron nails, 25.0g, highly corroded and fragmentary, some with mineralised wood adhering, square-sectioned with flat round heads.
F37	56	Incomplete iron coffin handle, 55.6g, round in cross section and very slightly expanded at the centre, rounded in shape Nine iron nails, 95.6g, highly corroded and fragmentary, some with mineralised wood adhering, square-sectioned with flat round heads.
	59	Iron nail, 14.7g, highly corroded, some with mineralised wood adhering, flat round head.
	61	Thirty-two fragments of thin iron sheet with mineralised wood attached to the back, 372.6g.
F38	57	Incomplete iron coffin handle, 41.6g, round in cross-section and expanded in the centre, rounded in shape. Six iron nails, 59.5g, highly corroded and fragmentary, some with mineralised wood adhering, square-sectioned with flat round heads.
F39	81	Fragment of iron grip plate including the broken remains of the double-looped handle attachment, 79.3g. Too little of the grip plate survives to determine shape. Three iron nails, 18.7g, highly corroded, some with mineralised wood adhering, square-sectioned with flat round heads.
	82	SF35 – Incomplete dress pin, bent, head missing.
F40	74	Seven iron nails, 63.0g, highly corroded and fragmentary, some with mineralised wood adhering, square-sectioned with flat round heads.

	76	Four iron nails, 36.5g, highly corroded and fragmentary, some with mineralised wood adhering, square-sectioned with flat round heads. Two iron coffin studs, 6.4g, c 15-16mm diameter, pins missing.
	80	Virtually complete iron grip plate (rectangular with lobed terminals) with squared handle still attached, highly corroded, 253.4g.
F41	79	SF36 – Thirty-five copper-alloy coffin studs, c 7-9mm diameter, 9-12mm long. SF40 – Complete dress pin with globular head, 25.4mm long.
F45	87	SF37 – Five fragments of dress pins. One has a globular head; the rest are shaft fragments.
F52a	109	Incomplete iron coffin handle, 72.7g, round in cross section and very slightly expanded at the centre, rounded in shape, now bent and distorted.
	111	Iron coffin handle, 89.5g, round in cross section and very slightly expanded at the centre, rounded in shape
F55	117	One iron coffin stud, 4.5g, c 18mm diameter, c 19mm high, some with mineralised wood adhering.
	118	One iron coffin stud, 4.9g, c 19mm diameter, c 18mm high, some with mineralised wood adhering.
F63	140	Five fragments of coffin handles, 188.1g, rounded cross-section, rounded in shape, some include small pieces of the grip plates corroded onto them, one includes the double-looped handle attachment. Six iron coffin studs, 35.1g, c 18-19mm diameter, 16-17mm high. Five iron nails, 115.3g, highly corroded and fragmentary, some with mineralised wood adhering, square-sectioned with flat round heads.
	146	Four iron coffin studs, 26.0g, c 18-19mm diameter, 16-17mm high. Six iron nails, 88.9g, highly corroded and fragmentary, some with mineralised wood adhering, square-sectioned with flat round heads.
F74	157	Two iron coffin studs, 12.1g, c 18mm diameter, c 17mm high, some with mineralised wood adhering. One iron nail, 157.0g, high corroded.
	158	Fifty-one fragments of thin iron sheet with mineralised wood attached to the back, 377.7g.
Coffin furniture from other contexts		
F2	9	Iron nail, head missing, 39.7g.
L2	6	Four iron coffin handles, rounded, 431.5g, all rounded in shape, three round in cross-section, the fourth oval in cross-section and expanded at the centre, highly corroded. Five iron nails, 141.7g, highly corroded and fragmentary, some with mineralised wood adhering, square-sectioned with flat round heads. Two pieces of round-sectioned iron rod, 60.5g.
	8	Iron coffin handle, 116.7g, squared in shape, round in cross-section, with part of grip plate surviving but there are no original edges to determine shape of plate. Fragment of grip plate, 71.2g, with no original edges to determine shape.
	67	Incomplete iron coffin handle, 114.7g, rounded in shape, oval in cross-section with an expanded centre. Eleven iron nails, 103.0g, highly corroded and fragmentary, some with mineralised wood adhering, square-sectioned with flat round heads.
	91	Two iron coffin studs, 10.5g, c 15-17mm diameter, c 16mm high, some with mineralised wood adhering Two iron nails, 34.7g, highly corroded and fragmentary, some with mineralised wood adhering, square-sectioned with flat round heads.
	93	Two coffin handles, 451.1g, rounded in shape, oval in cross-section with an expanded centre. Thirteen iron nails, 141.6g, highly corroded and fragmentary, some with mineralised wood adhering, square-sectioned with flat round heads. One iron screw, 26.7g, highly corroded and incomplete.
L13	70	Virtually complete iron grip plate (rectangular with lobed terminals) with squared handle still attached, highly corroded, 253.4g.

		Iron nail, 16.7g, highly corroded and incomplete, some with mineralised wood adhering, square-sectioned with flat round head.
	109	Two iron nails, 21.7g, highly corroded and fragmentary, some with mineralised wood adhering, square-sectioned with flat round heads.
L35	113	Iron coffin handle, 111.7g, rounded in shape, round in cross-section. Iron nail, 20.5g, highly corroded and incomplete, some with mineralised wood adhering, square-sectioned with flat round head.
	114	Iron coffin handle, 62.5g, rounded in shape, round in cross-section.
U/S	110	Two coffin handles, 178.5g, rounded in shape, round in cross-section. Fragment of round-sectioned coffin handle, 28.5g.

Table 24 Coffin furniture listed by context.

7.4 Clay tobacco pipe, glass and oyster shell

by Laura Pooley

Eighty-seven fragments of clay tobacco pipe (513g) were recovered from 18 contexts and as unstratified finds. The following identifications are based on the typology in *CAR 5*. Most of the fragments (69) were pieces of plain stem, although one did include part of the foot with the maker's initials **T A** in relief on either side. Of the 18 pieces of bowl, 14 could be identified and included two Colchester Type 6 bowls from L8 and L13 (dating to c 1660-1680), seven Colchester Type 7 bowls from F11, F37, F63, F67, L2, L35 and U/S (c 1670-1700), and five Type 9 bowls from L13 (c 1700-1740). Maker's initials were found on two bowls; they were **E B** on an unidentifiable bowl fragment and **I A** on a Type 9 bowl. Maker **E B** is probably Elizabeth Bland, **I A** and **T A** are both unidentified makers whose pipes have been found previously in Colchester (*CAR 5*, 63).

A single piece of blue/green Roman window glass (5.9g) came from L64. Twenty-four fragments (169.4g) of post-medieval and post-medieval/modern glass were found within the backfill of inhumation burials F1, F33, F37, F28, F63 and F74, and in graveyard soil L60. Four complete 20th-century bottles were recovered from soakaway F11. The date of the bottles suggests that the soakaway was backfilled at around the same time the church was demolished. Post-medieval and 19th- to 20th-century glass was also recorded in L2.

Finally, 15 pieces of oyster shell were recovered from six contexts.

Context	Finds no.	Description
Clay tobacco pipe (all discarded unless otherwise stated)		
F1	3	Stem fragment, 1.4g.
F2	9	Stem fragment, 1.7g.
F11	10	Almost complete bowl with partial stem, 24.7g. A Colchester Type 7 (<i>CAR 5</i>) dated c 1670-1700, heel is round with a line across it, rim is at least two quarters milled (part of the rim is missing). Retained in finds archive.
F26	20	Stem fragment, 0.7g.
F30	35	Stem fragment, 8.7g.
F33	43	Eleven stem fragments (including partial round base) and two bowl fragments (both plain bottered rims, not enough survive to determine type), 57.1g.
	48	Stem fragment, 6.8g
F37	56	Bowl fragment, 14.6g. Heel missing but shape of rest of bowl indicates it is probably a Colchester Type 7 (<i>CAR 5</i> , 49) dated c 1670-1700.
F38	57	Three stem fragments, 11.0g.
F40	75	Two stem fragments, 11.6g.
F55	115	Stem fragment, 1.1g.
F63	140	One stem fragment and one bowl fragment, 15.4g. Bowl is missing the rim and front, making shape difficult to determine, but probably a Colchester Type 7 (<i>CAR 5</i>) dated c 1670-1700, heel is round with a milled line across it.

F67	150	Virtually complete bowl (damage to rim) with partial stem, 26.4g. A Colchester Type 7 (CAR 5) dated c 1670-1700, heel is round with a milled line across it, rim is milled (two quarters). Retained in finds archive.
L2	5	Stem fragment, 1.6g.
	6	Fifteen stem fragments, 53.2g.
	9	One stem fragment and one bowl fragment, 9.1g. The bowl has a small round heel but not enough survives to determine type.
	67	Five stem fragments, 11.8g. Bowl 1 – Fragment, 4.3g. Only a small part survives but it does include a small round heel with the initials E B either side. Retained in finds archive. Bowl 2 – Complete, 22.6g, a Colchester Type 7 (CAR 5, 49) dated c 1670-1700, with round heel, milled (three quarters) and bottered rim. Retained in finds archive.
	69	Stem fragment, 8.6g.
	91	Seven stem fragments, including one with a round heel and initials T A in relief on either side 25.8g. Retained in finds archive.
L8	86	Incomplete bowl, 18.4g. A Colchester Type 6 (CAR 5, 49) dated c 1660-1680, with round heel and plain bottered rim, poorly burnished. The foot is at a slight angle meaning the stem and bowl do not sit straight when put down. Retained in finds archive.
L13	70	Three stem fragments, 10.2g. Bowl 1 – Incomplete, 11.9g, a Colchester Type 9 (CAR 5, 51-2) dated c 1700-1740 with initials I A on either side of round heel, plain bottered rim. Retained in finds archive. Bowl 2 – Incomplete, 12.4g, a Colchester Type 9 with small round heel and plain bottered rim. Retained in finds archive. Bowl 3 – Incomplete, 10.3g, a Colchester Type 9 with small round heel and bottered rim, most of back of bowl missing. Bowl 4 – Incomplete, 16.2g, a Colchester Type 9 with round heel, rim incomplete but approximately half milled. Retained in finds archive.
	109	Stem fragment, 5.4g.
	163	Complete bowl, 13.6g, a Colchester Type 9 (CAR 5, 51-2) dated c 1700-1740 with round heel and plain cut rim. Retained in finds archive.
	167	Complete bowl, 13.1g, a Colchester Type 6 (CAR 5, 49) dated c 1660-1680, with round heel and rouletted (75%) bottered rim, poorly burnished. Retained in finds archive. Stem fragment, 7.1g.
L16	92	Stem fragment, 1.7g.
L35	113	Bowl fragment, 13.6g. All of rim missing making shape difficult to determine, probably a Colchester Type 7 (CAR 5) dated c 1670-1700, milled round heel.
U/S	2	Two stem fragments, 12.5g.
	110	Six stem fragments and an incomplete bowl, 39.1g. Enough survives to indicate a Colchester Type 7 (CAR 5) dated c 1670-1700, heel is round, where top of bowl has survived it is milled, entirety of rim missing.
	142	Two stem fragments, including a small round foot, 9.3g.
Glass (all discarded unless otherwise stated)		
F1	3	Four fragments of flat, pale green glass, 4.4g, post-medieval/modern (intrusive).
F11	10	Four 20th-century glass bottles, all complete: Green wine bottle, embossed on base A 4 E / S 4 / UGB, 612.6g, 29.5mm high, 77.6mm diameter. Two brown beer bottles, embossed on base T298 / S 17 / UGB, 338.1g & 340.1g, 20.5mm high, 62.3mm diameter. Clear orange bottle, labelled EXPRESS DAIRY / SUNKAP / FRESH ORANGE / DRINK, embossed on base U290 / C4 / UGB, with part of foil cap surviving, 254.7g, 140mm high, 58.85mm diameter. (UGB stands for the United Glass Bottle Manufacturers, c 1913-1968).
F33	43	Ten fragments of thick green bottle glass, 89.4g, post-medieval.

F37	56	Three fragments of green bottle glass, 13.3g, post-medieval.
F38	57	Two fragments of green bottle glass, 23.6g, post-medieval.
F63	140	Three fragments of green and clear glass, 16.6g, post-medieval/modern.
F64	171	One fragment of blue/green window glass, 5.9g, Roman.
F74	150	Fragment of green glass, 4.0g, post-medieval.
L2	6	Two fragments of green glass, 2.5g, post-medieval.
	67	Ten fragments of green glass from a straight-sided wine bottle with push-up base, 487.1g, post-medieval.
	91	Fragment of green glass, 2.4g, 19th-20th century.
L60	163	Fragment of olive-green bottle glass, 18.1g, post-medieval.
Oyster shell (all discarded)		
F9	9	Left valve, 20.4g.
F32	36	Left valve and two fragments, 37.1g.
F38	60	Three fragments, 5.3g.
L2	6	Fragment, 1.7g.
L13	70	Fragment, 1.6g.
	109	Right valve, 15.4g.
L33	123	Three left valves, two right valves, 71.1g.

Table 25 The clay tobacco pipe, glass and oyster shell listed by context.

7.5 Lithics

by Tabitha Lawrence

One flint was recovered. The analysis of this piece has been completed in accordance with *the Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (ClfA 2020). The principal works cited include *Prehistoric Flintwork* (Butler 2005), *Technology and Terminology of Knapped Stone followed by a multilingual vocabulary* (Inizan et al 1999) and the *Classification of Lithic Artefacts from the British Late Glacial and Holocene Periods* (Ballin 2021). The piece was collected during hand-excavation. The measurement of flakes during analysis follows the methodology as devised by Saville (1980) and outlined by Butler (2005).

The piece is a broken tertiary flake with attributes of hard hammer percussion. It has a large amount of edge-damage on its lateral edges. It was recovered from Roman levelling or dump layer L64 and is certainly a residual find. The flake is undiagnostic.

Context	Finds no.	Context type	Flint type	Cortex %	Hard/soft hammer	Platform preparation	Modification
L64	171	Roman levelling or dump layer	Flake	0	Hard	No	Use-wear, edge-damage

Table 26 Lithics listed by context.

7.6 Roman marble

by Dr Kevin Hayward, freelance stone consultant

7.6.1 Introduction

This report primarily serves to identify the geological character and source of 98 items (7.5kg) of cut inlays and paving slabs recovered from St Nicholas Square. Located in the heart of Roman Colchester, it is close to the former Kent Blaxhill site (c 60m to the north-east) where huge quantities (1700 examples, 318kg) of Roman continental and native stone have previously been recovered (e.g. Hull 1955) and recently recorded².

A more detailed description of the geological character and source of the stone can be referred to in Appendix 9. Each rock type has been photographed to show their hue, texture, and fossil type usually when wet. Photographs of each rock type can be found in Figs 35-7.

7.6.2 Geological background and methodology

The term 'marble' is open to misinterpretation. To a geologist, the term refers only to metamorphosed or altered limestone resulting in the recrystallization of the calcite shells by thermal heat and pressure, producing a white crystalline marble. These rocks are the classic white marbles of the Mediterranean, most notably Carrara marble from Tuscany (Italy), but also marbles from Greece and Turkey. A second definition, used by masons, art-historians, and archaeologists alike, is to describe as marble any rock that can be polished, including granites, porphyries and shelly limestones, as well as the classic white Mediterranean marble. It is to this latter definition that marble, also termed ornamental stone, will be referred to in this report.

Using the methodology employed below, this report aimed to identify the geological character and source of the different polychrome and white marbles.

Nearly all the white and exotic polychrome marbles from St Nicholas Square were identifiable in hand specimen by their distinctive geological texture, fossil content or hue. All the examples were wettened during recording, which was designed to emphasise these features still further. Photographic comparative analysis with relevant texts on ancient marbles (Borghini 2004; Coquelet *et al.* 2019; De Ceukelaire *et al.* 2014; de Lassale 2006; Gnoli 1971; Klemm & Klemm 2008; Price 2007) and existing petrological studies³ of marble from Colchester (e.g. Hayward 2022), and a more detailed consideration of their specific use in Roman Britain improved the chances of good petrological matches.

² The subject of a research project "Veneer of the Empire" Dr Penny Coombe - <https://romanresearchtrust.org/a-veneer-of-empire-decorative-stonework-in-roman-colchester-awarded-2022/>

³ See footnote 2.

For fine white marbles, with the notable exception of Thasos marble, their monocrystalline fine calcite texture makes conventional hand specimen discrimination difficult.

7.6.3 Results

Petrology

Hand specimen comparative analysis of the 98 examples of stone (Chart 5) has been successful in identifying thirteen different stone material types used in the cut stone. Proportions of each stone type by number of fragments and weight in grammes are illustrated below (Charts 5-6).

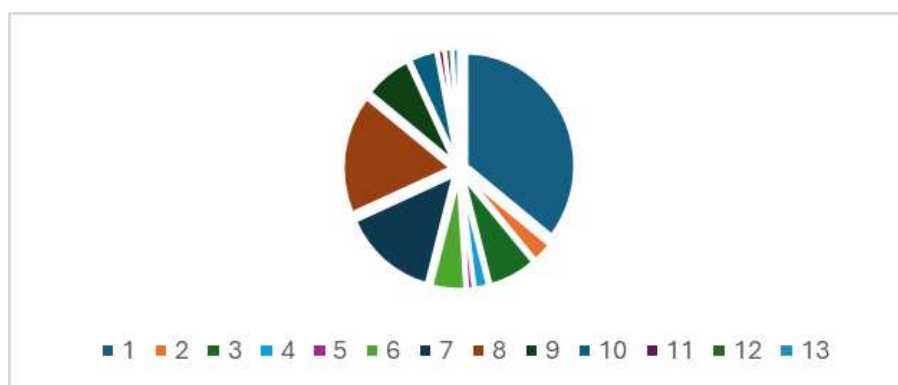


Chart 5 Pie Chart showing proportion (by number of pieces) of cut stone rock type.

1= Purbeck marble 35 examples (35.7%); 2= Kimmeridge Dolostone 3 examples (3.1%); 3= Cipollino Verde 5 examples (7.1%); 4= Sparta Porphyry 2 examples (2%); 5= Imperial Porphyry 1 example (1%); 6= Pavonazzetto 5 examples (5.1%); 7= Thasos marble 14 examples (14.3%); 8= Breccia Corallina Giallastra 17 examples (17.4%); 9= Breccia Corallina 7 examples (7.1%); 10= Africano 4 examples (4.1%); 11= Plum Belgian marble 1 example (1%); 12= Giallo Rosso 1 example (1%); 13= Unknown red marble 1 example (1%).

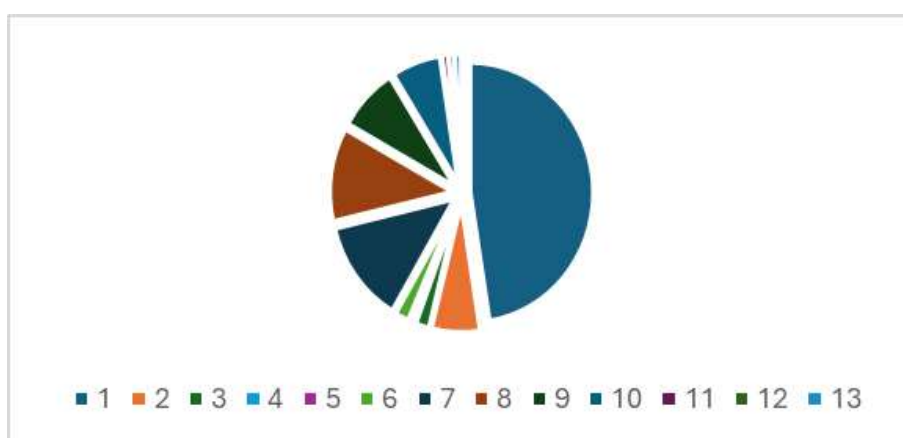


Chart 6 Pie Chart showing proportion (by weight %) of cut stone rock type.

1= Purbeck marble 3.6kg (47.5%); 2= Kimmeridge Dolostone 0.5kg (6.4%); 3= Cipollino Verde 137g (1.8%); 4= Sparta Porphyry 35g (0.5%); 5= Imperial Porphyry 28g (0.4%); 6= Pavonazzetto 140g (1.9%); 7= Thasos marble 1kg (12.9%); 8= Breccia Corallina Giallastra 0.9kg (11.7%); 9= Breccia Corallina 0.6kg (8%); 10= Africano 0.5kg

(6.5%); 11= Plum Belgian marble 63g (0.8%); 12= Giallo Rosso 55g (0.7%); 13= Unknown red marble 65g (0.9%).

What is immediately apparent are that by number of fragments (Chart 5) and weight % (Chart 6) the dark grey-blue native Purbeck marble (35 examples, 35.7%; 3.6kg, 47.5%) and dark grey Kimmeridge Dolostone (three examples, 3%; 0.5kg, 6.4%), both native condensed limestones and mudstones from Dorset, together account for 38 examples (38.7%) and 4.1kg (53.9%) respectively. Thus, the impact that native stone both here and at Kent Blaxhill (125kg, 35%) in the decorative flooring from Roman Colchester cannot be overestimated.

Imperial white and polychrome marbles, 3.4kg (46.1%) and 60 examples (61.3%), are present in eleven types, especially well represented by Crystal White or Thasos Marble (14 examples) and cream brecciated Corallina Giallastra (17 examples). Green colours are represented Cipollino Verde and Sparta Porphyry, reds by Imperial Porphyry, Giallo Antico Rosso, Purple Belgian marble and an unknown possible Red Belgian marble. There is also white Pavonazzetto, black Africano and pink Breccia Corallina. All have been identified at Kent Blaxhill (Hull 1955; Hayward pers. obs⁴).

Most of these continental white and polychrome marbles come from Greece or Turkey (Giallo Antico Rosso; Thasos marble, Pavonazzetto, black Africano, pink Breccia Corallina; Corallina Giallastra; Sparta Porphyry) rather than from Italy, North Africa and the Pyrenees which is in keeping with the Kent Blaxhill assemblage.

Native polychrome marbles

Purbeck marble

A hard, fossil-rich, condensed limestone forms the most common form of native decorative stone type. This dense, blue-grey shelly limestone is packed full of small 5mm snails of the species *Viviparus cariniferus* and is restricted to the Lower Cretaceous coastal outcrop near Swanage on the Isle of Purbeck (Dorset). There were 35 pieces from the site (Fig 35.1-3).

Purbeck marble could be polished, like true marble, and was able to take lettering. It was the most widely used native marble in southern Britain during the Roman period and was exploited from the mid-1st century A.D. onwards. It was employed for monumental inscriptions, such as the famous Togidubnus inscription from Chichester (RIB 1, 91) and for interior work as wall inlay embellishment for bathhouses in smaller inlays and paving as well as string course moulds at London (Pritchard 1986; Hayward 2019a), Silchester (Isserlin 1998), Fishbourne (Cunliffe 1971), Winchester (Hayward 2024), Exeter (Bidwell 1979, 136-45) and Caerleon (Zienkiewicz 1986; 303-6). It forms a significant

⁴ See footnote 2.

component of the polychrome marble assemblage from Kent Blaxhill at Colchester (Hull 1955, Plate IV, 49l; Hayward pers. obs.) and a large quantity of the marble inlay at Fordham Villa (Hayward 2022).

Hand specimen comparative analysis was also able to identify three different types of Purbeck marble (blue bed, broken bed and green bed).

Purbeck marble Blue Bed

Hard cream to light grey condensed limestone packed with pronounced small 5-10mm sized freshwater gastropods Paludina carinifera. Evidence for oxidation (reddening) and less commonly reduction (green) staining on the shell - Purbeck marble (Blue Beds) Purbeckian (Lower Cretaceous) Isle of Purbeck, Dorset from Swanage to Langton Matravers.

A total of fourteen examples weighing 1774g came from F25 (x2), F26 (x1), F28 (x2), F34 (x1), F38 (x1), L2 (x1), L8 (x4) and L10 (x5) – The most common type of Purbeck marble from these excavations, the Blue Bed variety is considered the most desirable sub-type on account of the consistency in size of the small and well-defined 5-10mm sized freshwater gastropods *Paludina carinifera*. When wettened this sub-type also has a distinctive pale red hue on account of the iron staining of the shell, or more rarely a green hue due to reduction of the shell. It follows that these bright colours would have enhanced the appearance of an already distinctive shelly limestone.

Some of the cut stone in the Blue Beds variety has a thickness of around 20mm (16-21mm) and has been worked into *opus sectile* fragments including rectangular and rod shapes (F38, L2) (Fig 35.1 & 3). The remainder are 9 to 11mm thick veneers including four curved examples (L8, L13). Very common in at Kent Blaxhill (Hull 1955; Hayward pers. obs.) and Fordham (Hayward 2022).

Purbeck marble Broken Bed

A hard grey to dark grey condensed limestone packed with small, fragmentary 5-10mm sized freshwater gastropods Paludina carinifera – Purbeck marble Broken Beds (Cordiner & Brook 2017, 8) Purbeckian (Lower Cretaceous) Isle of Purbeck, Dorset from Swanage to Langton Matravers.

A total of fifteen examples weighing 1834g came from F28 (x2), F31 (x3), F35 (x1), F38 (x1), F38 (x1), L2 (x2), L7 (x1), L8 (x2), L10 (x2) and L13 (x1) – Distinguished from other types of Purbeck marble by its dark grey colour and broken up (comminuted) fragments of the freshwater gastropod *Paludina carinifera*, inlays in the Purbeck marble Broken Bed (Cordiner & Brook 2017, 8) are the thinnest from this assemblage but there is also considerable variability in thickness and form. They include a thin (7mm) isosceles triangle (F33) (Fig 35.2), a thicker (14mm) right-angled triangle (F38), curved thick (22mm) element (F31) and a very thick rectangular *opus sectile* fragment (L8). Examples recently seen of thin wall inlay from Kent Blaxhill in the Purbeck marble broken beds bear this out as well as at Fordham (Hayward 2022).

Purbeck marble Green Bed

Light grey earthy condensed limestone with less tightly packed small 5-10mm sized freshwater gastropods Paludina carinifera. Large white unio bivalve 20mm typical of Green Beds. Purbeck marble Green Beds Purbeckian (Lower Cretaceous) Isle of Purbeck Dorset from Swanage inland to Langston Matravers.

One example weighing 146g came from L7 – A distinctive form of Purbeck marble is the Green Bed variant. Characterized by large white Unio bivalves (Fig 35.4), this is a duller, poorer quality material that weathers easily. It is associated with a thin veneer, at 11mm thickness. Examples of Green Bed have been seen at Kent Blaxhill and at Fordham (Hayward 2022).

Kimmeridge Dolostone

Dark grey dolomitic cementstone Lithotype La of Allen & Fulford (2004) (Allen et al. 2007) Dolomitic Cementstone – Upper Jurassic (Kimmeridgian) Dorset.

A total of three examples weighing 481g came from F33 (x1), L2 (x1) and L10 (x1) – These rather dull earthy grey mudstones have all been worked into distinctive *opus sectile* shapes including the same rod shaped and sized element as the lighter Purbeck marble from L2, suggesting alternating stripes of stone in different hue and square (Fig 36.5) from L10 and a very thin (7mm) isosceles triangle (F33) (Fig 36.6). Although widely associated with tesserae production (Allen & Fulford 2004), much larger *opus sectile* fragments in this rock are not uncommon with examples seen in Roman Southwark near Brandon House, BB010 (Hayward pers. obs.).

Polychrome imports

Eastern Mediterranean Polychrome Imports

Cream to pink marbles

Breccia corallina giallastra

Polymict limestone Conglomerate. Clast boundaries and contacts sutured. Note stylolites and extensive calcite filled fractures Godoy Verzirhan, Bilecik, Turkey.

A total of 17 examples weighing 883g came from F26 (x5), F28 (x2), F31 (x2), L2 (x1), L7 (x2), L8 (x1), L9 (x1) and L13 (x1) – The most common coloured imported marble from the site, this cream brecciated marble is also extremely common at Kent Blaxhill (Hayward pers. obs.). Present in a

number of different thickness, it is typically used in very thin polished veneers 6 to 8mm thick and more rarely in medium to thick forms (16-21mm) (Fig 36.7).

Breccia Corallina

Brecciated consisting of large and small ivory-white limestone clasts in an orange, salmon-pink haematite matrix, fractured Marmor Sagarium Cretaceous. Vezirhan, Bilecik, north Turkey.

A total of seven examples weighing 604g came from F26 (x2), F28 (x1), L2 (x1), L8 (x2), L9 (x1) and L10 (x1) – From the same outcrop as the giallastra, this distinctive coral pink brecciated Turkish limestone (Fig 36.8) is also present in some quantity at Kent Blaxhill (Hayward pers. obs.) and has been identified in thin to medium 7-21mm thick smooth or polished inlays, one of which (F26) has been reused with *opus signinum* present on a broken surface.

Green marbles

Cipollino verde

Sheared and folded impure green calcitic marble rich in silicates primary green chlorite. Marmor Carystium Late Cretaceous – Tertiary, Isle of Euboea, Greece.

A total of five examples weighing 137g came from F26 (x2), L8 (x1) and L10 (x2) – Identified at Kent Blaxhill, this distinctive ocean green wavy marble from Greece (Fig 36.9) is only present in very thin, often polished veneers between 4 and 10mm thick and would have formed some sort of exquisite wall inlay decoration.

Sparta Porphyry

Pale lime green porphyritic meta-andesite. Coloured green by silicate minerals epidote and chlorite and black devitrified glass; white phenocrysts plagioclase Porfido verde antico Permian-Carboniferous. Krokeai, near Sparta, Levetsova, Laconia. South-east part of the Peloponnese, Greece.

A total of two examples weighing 35g came from F25 (x1) and L2 (x1) – As seen at Kent Blaxhill (Hayward pers. obs), the green Sparta Porphyry from Greece is one of the most spectacular and finely cut and shaped marbles from Roman Colchester. The examples from F25 (Fig 37.10) and L2 are both highly polished and just 5mm thick.

Red marble

Giallo Rosso

Fine even grained deep red impure marble marmor Taenarium Cretaceous-Eocene, Cape Taenaro Mani Peninsula, south-east Greece.

One example weighing 55g came from L10 – Possibly the most spectacular find is this highly unusual ribbed marble inlay in the fine red Giallo Rosso from south east Greece. The object is 17mm thick (Fig 37.11) and is a rarity even for Kent Blaxhill.

Black marble

Africano marble

Highly variable tectonic limestone breccia with white, red-brown angular phenocrysts 5-15mm across set in in black to dark green matrix. Despite its name the rock can be sourced to Cretaceous rocks from Teos, Izmir in Turkey.

Four examples weighing 487g came from L2 (x1), L8 (x1), L10 (x1) and L13 (x1) – A black brecciated polychrome is comparable with examples of Africano marble, also known as *marmor luculleum* sourced to Izmir Turkey. The examples from L2, L8 and L10 (Fig 37.12) are extremely thin (4mm-8mm), like the example from Fordham (Hayward 2022), suggesting use as a very thin inlay perhaps as wall veneer, with the example from L8 having a bevelled edge. Africano marble has been identified in very large quantities from Kent Blaxhill (Hull 1955; Hayward pers. obs.) in large paving like slabs (30mm) like the example here from L13.

North Africa Imports

Imperial porphyry

Purple-red porphyritic andesite-dacite or porphyric dacite, quartz andesite. Purple groundmass coloured by haematite and the manganese-bearing silicate mineral piemontite. Small pink or white plagioclase phenocrysts, rare small black crystals of biotite or basaltic hornblende exhibiting a flow structure; lapis porphyrites Late Pre-Cambrian–early Palaeozoic. Dokhan Volcanic Suite. Ancient and modern Mons Porphyrites quarries of Gebel Dokhan or Eastern Desert, Egypt; 30km inland from the Red Sea.

One example weighing 28g came from F26 – A solitary North African polychrome marble is present as a very thin (6mm) polished veneer inlay (Fig 37.13). The spectacular purple Imperial porphyry so called because of its colour was specifically chosen as the empires key marble. Quarried from the Gebel Dokhan quarries in the Eastern Desert, it is rare in Britannia and this like the other purple marble inlays from the Kent Blaxhill site are highly polished and very thin (Hayward pers. obs.). Indeed, like the green sparta porphyry examples from Kent Blaxhill are also frequently shaped into quite ornate decoration (Hayward pers. obs.)

Low Countries Imports

Belgian red marbles (*Pink/Plum and White limestones*)

White, lilac, pink, plum brecciated hard condensed limestone. The white/cream stromatactoids are set in salmon pink matrix with irregular red and black irregular pressure solution marks or stylolites.

Rouge Royal or related red Belgian marble, mid- Devonian (Givetian-Frasnian) South-Central Belgium.

One example weighing 63g came from L7 – A single example of cut stone could be matched with red marbles from the mid-Devonian (Givetian-Frasnian) of Belgium (Fig 37.14). This pink-plum-violet coloured “brecciated” limestones has the distinctive white or yellow brecciated or stromatactoid texture, which are masses of large white branching calcite spar, that define these red Belgian marbles at outcrop. Examples have recently been identified in very small quantity from the Kent Blaxhill site (Hayward pers. obs.) and especially at Fordham (Hayward 2022). Widely used on the continent in paving in *Gallia Belgica* at civitates capitals Tungeren (Coquelet et al. 2019, 225-252; Dreesen et al. 2019, 25-50), it would have made sense for these materials to have been shipped over the channel for use in Colchester and Fordham, especially as their outcrop lies much closer to Eastern England than the Purbeck marble one does further south.

Unidentified – probable Red Baelen or Rouge Royal Marble

Unusual red and white limestone or calcareous sandstone which is very fine.

One example weighing 65g came from L8 – It was not possible to identify the source of one thin (9mm) polished inlay (Fig 37.15). Described as a very fine red and white limestone it may provide a rare example of red Baelen or Rouge Royal Belgic marble from the mid-Devonian (Givetian-Frasnian) of Belgium.

White East Mediterranean marbles

Thasos marble

Very pale cream-grey granular white marble with large crystalline dolomite grains. Thasos marble Basement rocks made of tertiary dolomitic or calcitic marble. Cape Vathy and Alikí, Isle of Thasos, Kaválla, Greece.

A total of fourteen examples weighing 970g came from F26 (x3), F28 (x3), F36 (x1), L8 (x2), L9 (x1), L10 (x2) and L13 (x2) – Fourteen examples of coarsely crystalline, white, meta-dolomite, Thasos or Thasian marble, were found. It is present mainly as thin strips of veneer (6-12mm) including two curved examples (L8, L13) and compliment a Purbeck marble inlay of similar thickness and shape

from L8 (Fig 35.5 & Fig 37.16). Thasos marble has been identified in some quantity in Britannia, especially from Roman Southwark, with finds including a platter from the pre-Flavian mansio at Southwark Street and a string mould belonging to the putative bath house (Building 18) at Borough High Street (Hayward 2019). It is also widely present at Kent Blaxhill (Hayward pers. obs.) and in a single item from Fordham (Hayward 2022).

Pavonezzetto or Docimaeen marble

Highly variable white brecciated conglomerate with white marble clasts in grey or red purple matrix. Iscehisar, ancient Docimium (near modern Afyon in west-central Turkey).

A total of five examples weighing 140g came from F28 (x1), F31 (x1), F38 (x1), L8 (x1); L13 (x1) – This brighter east Mediterranean white marble import, seen in large quantity at Kent Blaxhill (Hayward pers. obs.), is present in just a handful of examples and in two thickness (Fig 37.17). They include thin (6mm) polished examples and much thicker pavers (19-30mm).

7.6.4 Summary

Fabric and form

Detailed hand specimen comparative analysis of the 98 examples of cut stone recorded St Nicholas Square has been successful in identifying thirteen different rock types, twelve of which can be assigned a geological source.

Dominating the assemblage (35 examples, 35.7%) were native Purbeck marble inlays (Fig 35.1-3) from the Cretaceous (Purbeckian) of the Isle of Purbeck, East Dorset. As with other studies at Kent Blaxhill (Hayward pers. obs.) and Fordham (Hayward 2022), three different sub-types (Blue, Broken and Green Beds) could be identified. Many have been worked into discrete *opus sectile* shapes including triangles, squares, rectangles and rod-shaped elements (Fig 35.1-3) where examples of White Thasos marble (Fig 35.3) and grey Kimmeridge Dolostone (also from Dorset) (Fig 36.5-6) have also been identified. Together this would have created quite an intricate pattern of white, blue-grey and grey *opus sectile* flooring shapes in the vicinity.

There were eleven different polychrome (Fig 36.7-9 & Fig 37.10-15) and white continental marbles (Fig 37.16-17), ten of which have been identified in the enormous assemblage nearby at Kent Blaxhill. In addition, quantities of Breccia Corallina Giallastra (17 examples, the largest) were very common at both and together yielded sizeable quantities of Thasos marble, Africano, Breccia Corallina and Pavanozetto. On petrological and morphological grounds (thickness and shape) the two assemblages are compatible and are part of the same cache of discarded marble. What has emerged from this study is how important Turkish and Greek white and polychrome marbles are in this mix with eight types (Pavanozetto, Thasos, Breccia Corallina Giallastra, Breccia Giallastra, Sparta Porphyry, Cipollino Verde, Africano, Giallo Rosso) represented.

As with Kent Blaxhill, some prestigious rock types, Green Sparta Porphyry (Fig 37.10) and Imperial or purple Porphyry (Fig 37.13) have been polished and sliced into very thin (5mm) elements or as in the case of Giallo Rosso (Fig 37.11) carved into undulating polished ribs.

As with Kent Blaxhill, there can be no doubt (based on variety of rocks, forms, shapes and thicknesses) that the marbles come from many different pavements in and around Colchester. Reuse can be shown by the fact that some elements have mortar on broken surface edges.

The assemblage is of national significance and adds more to the already considerable Kent Blaxhill grouping of native polychrome and imported white and polychrome marble.

7.7 Animal bone

by Alec Wade

7.7.1 Introduction and methodology

The faunal assemblage comprises 876 disarticulated fragments, weighing a total of 21.853kg. Of these, 837 fragments (20.285kg) originated from disturbed or secondary deposits, such as graveyard soils, which were poorly dated. These were quantified but not recorded in detail and are summarised later in the report.

A smaller subset of 39 fragments (1.568kg) was recovered from securely dated Roman and medieval contexts. These were recorded using the diagnostic zone system developed by Dobney & Rielly (1988). Specimens lacking diagnostic features were categorised by size (e.g. 'cattle or horse sized', 'sheep or goat sized') based on morphology and robustness.

Measurements were taken where possible using digital callipers and an osteometric board, following von den Driesch (1976) and Davis (1992). Tooth and mandible wear stages (TWS and MWS) follow Grant (1982), and bone fusion ages are based on Silver (1969). Data were compiled and analysed using Microsoft Excel.

7.7.2 Results

Faunal remains from securely dated Roman and medieval contexts

A total of 39 fragments (1.568kg) were recovered from seven securely dated contexts: four Roman (L27, L33, L58/59, L64) and three medieval (L41, F34, F36). Most of this material was Roman and included cattle, pig, horse and the wild species of red deer. The medieval contexts included sheep/goat and a singular fish bone, probably a gadiform such as a cod or haddock. This material has been retained in the finds archive.

Taxon	Roman	Medieval	Total
Cattle or horse sized	17	4	21
Bos taurus (domestic cattle)	9	0	9
Sheep or goat sized	1	2	3
Sus domesticus (domestic pig)	2	0	2
Ovis/capra (sheep/goat)	0	1	1
Cervidae – red deer?	1	0	1
Equus caballus (horse)	1	0	1
Gadiformes (cod, hake, pollock and haddock)	0	1	1
Total	31	8	39

Table 27 Taxon in the securely dated Roman and medieval contexts by number of pieces.

Roman contexts

L27 (dump layer): Four fragments were recovered, including a complete cattle metacarpal showing dog gnawing⁵. Other remains included rib and diaphysis fragments from large (cattle/horse) and medium (sheep/goat) sized mammals.

L58/59 (Boudiccan demolition debris): A near-complete horse radius with fused ulna was recovered⁶. The proximal joint has been cleanly chopped with further localised damage to the distal joint.

L33 (Late Roman/early post-Roman demolition horizon): Twenty-six fragments were identified, including cow (mandible⁷, pelvis, humerus, metatarsal⁸, maxillary teeth) and pig (mandible and tooth). Most other fragments were consistent with cattle, with one vertebra from a sheep/goat-sized mammal.

L64 (levelling/dump layer): A broken antler tine, likely from a red deer, showed rodent gnawing and wear suggestive of use as a tool.

Medieval contexts

L41 (robber trench fill): A single sheep/goat mandible⁹ was recovered, with an approximate age of at least 18 to 24 months (based upon the eruption of both the P4 and M3).

F34 (robber trench): One fish vertebra, likely from a gadiform species (e.g. cod, haddock), was recovered but remains largely undiagnostic.

F36 (pit): Five undiagnostic fragments from cattle and sheep/goat-sized mammals were recovered, most showing evidence of dog gnawing.

Dog and rodent gnawing

Dog gnawing was noted on eight of the pieces with L33 and F36 being most affected with three pieces each. Singular dog gnawed pieces were also recovered from L27 and L41. The antler tine from L64 had been rodent gnawed. The presence of gnawed bone within a context is usually a good indication of residual material as, prior to their eventual deposition, the fragments would have been exposed for a period on the surface where scavenging dogs would have had easy access to them.

Cut and worked bone

Ten specimens, all from Roman contexts, showed signs of butchery in the form of slice or chop marks and one fragment of antler (also from a Roman context, L64) may have been utilised as a tool.

Nine of the butchered pieces were from L33. These were all either cow or similar sized pieces except for one piece that was from a sheep/goat sized mammal. The remaining fragment was a horse radius from L58/59 that had a vertical chop removing a portion of the medial proximal joint. There was further irregular damage to the medial distal joint but no clear indication of a cut or chop. As the radius is

⁵ Measured, see appendix.

⁶ Measured, see appendix.

⁷ TWS recorded in appendix.

⁸ Measured, see appendix.

⁹ TWS recorded in appendix.

otherwise complete, it would appear likely that this damage is not related to butchery but may be related to the deposition of the demolition debris.

Taxon	Skeletal part	Description of cut marks
<i>Bos taurus</i> (domestic cattle)	Humerus	Z3 and Z4 may have been removed by chopping/bone breakage?
<i>Bos taurus</i> (domestic cattle)	Metatarsal	Three short horizontal nick marks at border of Z3 and Z7.
<i>Bos taurus</i> (domestic cattle)	Pelvis	Short slice mark Z8 (arm of pubis). Also chopped/ Bone breakage?
Cattle or horse sized	Atlas	Chopped/cubed.
Cattle or horse sized	Diaphysis fragments	Chopping/Bone breakage.
Cattle or horse sized	Femur distal epiphysis	Two (possibly three) short transverse and oblique slice marks on anterior/lateral side.
Cattle or horse sized	Tibia	Possible chopping/bone breakage.
Cattle or horse sized	Vertebrae	Oblique/vertical chop marks on dorsal spine.
Sheep or goat sized	Vertebrae	Vertical chop on right side.

Table 28 Cut animal bone from L33.

Taxon	Skeletal part	Description of cut marks
<i>Equus caballus</i> (horse)	Radius and ulna	Vertical chop through Z2 and possibly Z4 and Z10.

Table 29 Cut animal bone from L58/L59.

A broken fragment of antler tine (probably a brow tine from a red deer) was collected from L64. Possible wear on the pointed tip and underside of the fragment suggest it may have been utilised as a penetrating tool though it has not otherwise been visually modified. The base of the tine ends in an irregular fracture with no clear cut (or sawn) edges though the edges on both left and right sides are chevron shaped.

Pathology

No pathology was recorded on any of the specimens from the securely dated Roman and Medieval contexts.

Post-medieval and less securely dated contexts

A total of 837 fragments (20.285kg) originated from disturbed or secondary deposits, such as graveyard soils, or poorly dated contexts. The table 'Faunal remains from post-medieval/modern and poorly dated contexts by taxon' in the appendix presents a catalogue list of this assemblage which has been discarded. Ten species were identified including cow, sheep/goat (no distinction being possible), pig, horse, goose, dog and the wild species of hare, red deer, roe deer and mallard. The following chart shows their distribution by number of pieces.

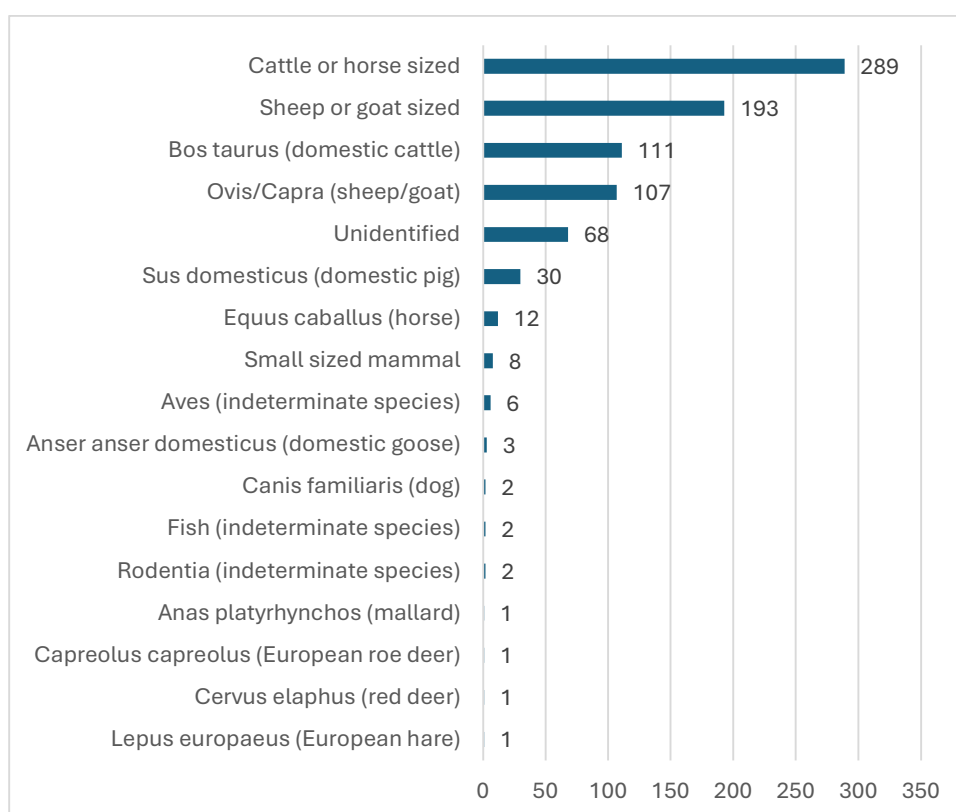


Chart 7 Taxon by number of pieces for the post-medieval and poorly dated contexts.

Cut marks from butchery were recorded on 116 specimens (13.85%) and evidence of dog gnawing on 171 (20.43%). One piece had been burnt, and pathology was noted on a rib fragment from a cattle/horse sized mammal which displayed localised swelling or inflammation.

All animal bone from post-medieval and less securely dated contexts has been discarded.

7.7.3 Conclusion

Although most material derived from disturbed or poorly dated contexts, the securely dated subset – particularly from Roman demolition and dump layers – reveals evidence of butchery, domestic consumption and possible craft activity. Evidence of cut marks, chop marks, and deliberate bone breakage, especially from L33, suggests systematic processing of large mammals, primarily cattle. The presence of gnawed bone, notably by dogs and rodents, indicates prolonged surface exposure prior to final deposition. The antler tine from L64, showing wear consistent with tool use, also demonstrates exploitation of the wild species present in the environment outside the city. Medieval contexts yielded fewer diagnostic specimens but included domesticates such as sheep/goat and fish, reflecting varied subsistence practices. Overall, the securely dated faunal remains contribute to a broader understanding of urban life, economy, and refuse management.

7.8 Environmental assessment

by Bronagh Rae-Quinn

A single soil sample was taken from a Roman occupation layer (L36) above a clay floor. The sample was floated by a trained member of CAT staff and analysed by the author. It was processed using a serif-style flotation device which produced a flot and a larger residue. The flot was collected in a 300 micron mesh and scanned using a microscope (magnification x10), while the larger residue was scanned by eye and any remains removed by hand.

The sample produced no environmental evidence other than charcoal. This is perhaps not surprising as although occupation layers have potential for good indicators of activity, it is likely that floors were kept clean of most debris during their lifetime.

Sample No.	1
Context No.	L36
Other remains	
Charcoal >10mm	x
Charcoal 4-10mm	xxx
Charcoal <4mm	xxxxx
Sample volume (litres)	10
Volume of flot (litres)	0.04
% flot sorted	100%

Table 30 Environmental results

Key

x	0-10
xx	10-25
xxx	25-50
xxxx	50-100
xxxxx	100+

8 Discussion

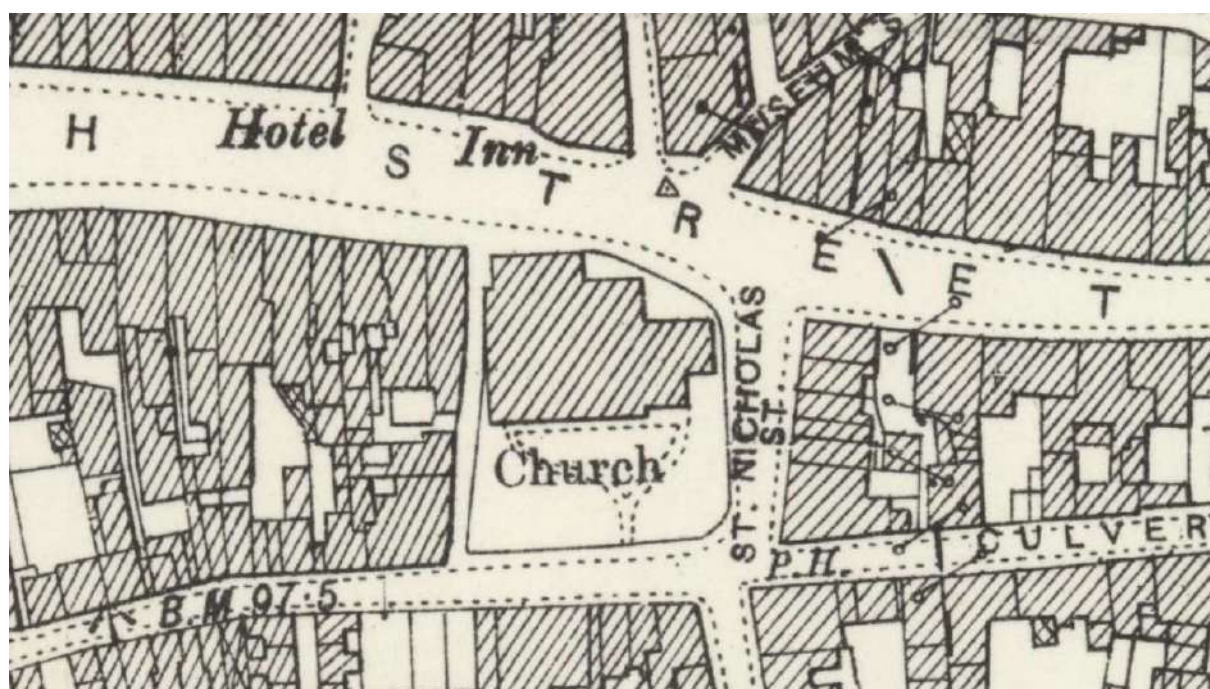
The redevelopment of St Nicholas Square, Colchester, revealed significant archaeological remains across the site (Fig 12) which can, in general, be divided into two groups. They are the remains associated with 1) St Nicholas Churchyard (Fig 13) and 2) the Roman town beneath (Fig 14).

8.1 St Nicholas Churchyard (Fig 13)

St Nicholas Church stood on the site by at least the 12th century. It was rebuilt in the 14th century and again in the 1870s before being demolished in 1955. Early maps of Colchester show the footprint of the church before and after the 1870s rebuild (Maps 1-2). The maps show that the boundary to the churchyard was St Nicholas Passage to the west, Culver Lane to the south and St Nicholas Street to the east. However, Map 1 shows that the graveyard originally extended to the east of the earlier, smaller church right up to the High Street. The burials in this location would have been built over by the later church (see Map 2). A few 19th-century illustrations and photographs of the church and churchyard both before and after the rebuild do exist (Images 1-3). Images 1 and 2 show both gravestones and chest tombs in the churchyard.



Map 1 Chapman and André map of 1777, showing the extent of the medieval church and churchyard before the 1870s rebuild.



Map 2 1st edition 6-inch OS map of 1896, showing the extent of the church and churchyard after the 1870s rebuild.



Image 1 Image showing the ruins of the medieval church and part of the churchyard, by Thomas Hosmer Shepherd (1793–1864).



Image 2 Poor quality copy of a 19th-century image showing the ruins of the medieval church and part of the churchyard, downloaded from <https://www.stnicholascenter.org/gazetteer/1029?photo=5>

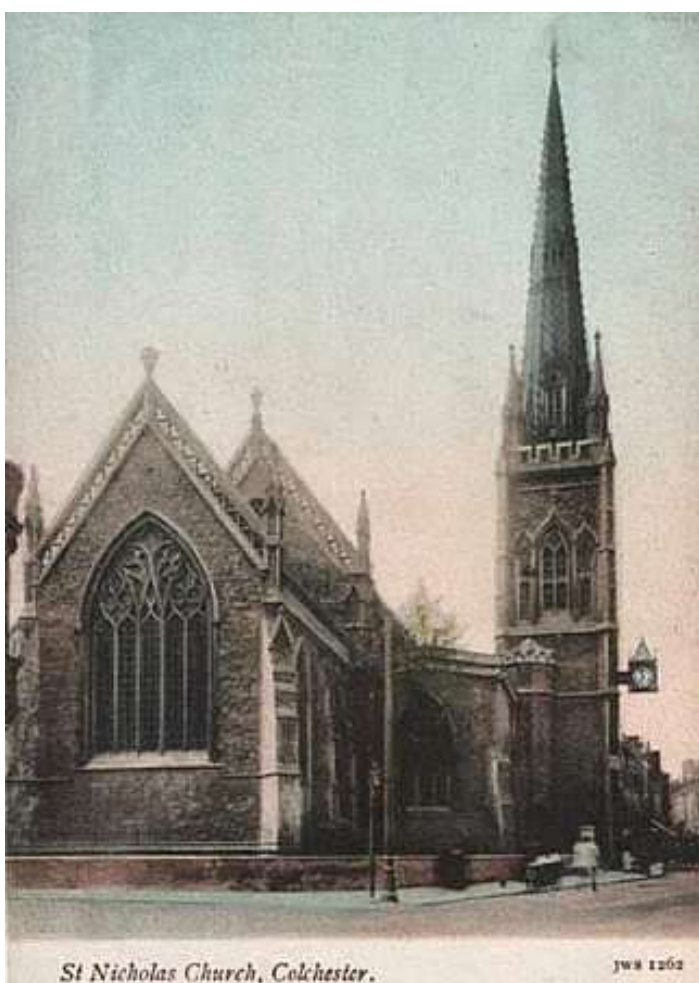


Image 3 The rebuilt Victorian church, downloaded from <https://www.stnicholascenter.org/gazetteer/1029?photo=5>

The 2020 evaluation had already proven that the churchyard had not been cleared of its burials when the church was demolished in 1955. The current investigations have revealed burials up to 20m to the south of St Nicholas House, extending underneath part of Culver Street East, and covering an area at least 30m east/west. There were no burials within the footprint of St Nicholas Street confirming the eastern extent of the churchyard.

A total of thirty-eight *in situ* burials were impacted by the St Nicholas Square groundworks with another three identified but not disturbed. Fifteen burial chambers dated to the period c 1650-1850. Fourteen were single-width, brick-lined chambers (Litten Type 3) that could potentially accommodate up to six coffins, and there was one probable double-width brick-lined chamber with barrelled roof (Litten Type 2) (Litten 1991, 211-212). Brick foundations for standing funerary monuments were found above three of the chambers. The chambers and associated burials have been preserved *in situ* underneath the development. There were twenty-six inhumation burials where a single individual was buried straight into the ground. Three were not excavated and left *in situ*. Due to the nature of the groundworks, not all the remaining twenty-three burials were excavated in their entirety, with only those areas of the body due to be impacted by the groundworks excavated and lifted. The unimpacted skeletal parts of all these individuals were left *in situ*. This means that almost all the forty-one burial features/burials recorded during the groundworks at St Nicholas Square are still wholly or partially *in situ* beneath the development. The churchyard has not been cleared, either in the 1950s or during the current investigations, and any future groundworks within the footprint of the churchyard has the potential to impact *in situ* burials.

Of the twenty-three inhumation burials excavated, thirteen had either been buried within a coffin or had produced residual coffin furniture disturbed from other burials (and so post-date the introduction of the coffined burial). Burial in a coffin became common from the late 17th century onwards (Webb & Norton 2009, 173). The discovery of a lead coffin plaque meant that one individual could be identified by name, 14-year-old Sophia Ranson who died in 1824. The ten burials without any coffined remains could date to the medieval or post-medieval periods.

An unusual stone structure of a similar size to the burial chambers could represent an earlier form of burial monument constructed before the widespread use of brick. However, no burial was identified during the limited investigation of the structure and, as it was the only structure of its type revealed during the groundworks, it has not been possible to determine its precise function.

Analysis of the articulated and disarticulated skeletal remains removed from the site has revealed that the assemblage appears typical of a population from this period. Most age groups, from infant to old adult were represented, with more females estimated than males. A wide range of pathologies were identified, although in general the community was fairly healthy.

The plan on Fig 14 appears to show a general trend for the burial chambers to be positioned closer to the church, unsurprising if these represent wealthier families. However, caution must be expressed here as there were probably a lot more burials present than were recorded. For example, few of the gravestone remnants were associated with a burial but these were generally in the areas of shallow excavations and deep burials would not have been impacted by the groundworks. More inhumations were recorded where the excavations were deeper, with burial chambers predominating where groundworks were shallower. An absence of burials in tree-pit 1 is noteworthy. Could it represent a true 'gap' or open space in the churchyard? Given the presence of deep inhumation F15, it is probably far more likely that the backfilled graves were difficult to distinguish from the surrounding graveyard soil and had even deeper excavations occurred *in situ* remains would have been encountered.

Also of note is the east/west aligned metalled surface on the southern edge of the churchyard (as represented by F25, L48, L52, L53 along with associated contexts F29 and L49). This would appear to represent a phase of street metalling associated with Culver Lane. The presence of inhumation burial F29 within the extent of the metalling could suggest that either the churchyard was reduced in size when the street was laid out or, as this was the only burial found within the metalled area, that it was already an outlier of the churchyard.

8.2 The Roman remains

Little archaeological work was carried out when the church was demolished in 1955. Hull (1960) reports that work lasted a month between December 1955 and January 1956, being led by himself with 'four men whose attendance and work was far from satisfactory' and hampered by bad weather. He did however manage to identify the north/south street between the two *insulas*, as well as record the remnants of pre-Boudiccan clay block buildings which were replaced in both *insulas* by (?public) buildings with substantial foundations. Hull's findings are shown on Fig 14 alongside the Roman remains found during these investigations.

It must be said that the method of groundworks for the current project was also not conducive to thorough archaeological investigation of the Roman remains. Where *in situ* remains were encountered it was often in deep sections or small holes, often only revealing vertical stratigraphy with little opportunity to explore interrelationships, which only provided a tantalising glimpse at what might lie in *Insulas* 29 and 30 of the Roman town. Formation depths also meant that many features identified as robber trenches could not be investigated to confirm identification, or to establish the nature or date of any building remains beneath. Despite this, significant Roman remains were identified that can be related to Hull's work in 1955/6.

Insula 29

What is immediately obvious when looking at the remains on Fig 14 is that *in situ* wall foundation F47 (found in the inspection chamber) is only c 1m out of alignment with Hull's easternmost north/south wall foundation of *Insula* 29. The two foundations are highly likely to be part of the same wall

alignment, with the slight misalignment caused by problems dropping Hull's plans onto modern mapping of the city.

Wall foundation F47 was substantial at 1.15m wide, over 0.85m deep and constructed from tightly packed septaria blocks in a white mortar. Hull (1960) records that the wall to the north had five courses of septaria blocks on a foundation of poured mortar set with irregular layers of stones and undressed blocks of septaria thrown into the upper part. It is also possible that this is the same north/south wall that was observed in 1925 during the construction of the Co-operative Society buildings, which was described as 3ft thick and running the whole length of the site (Hull 1958, 203, ref. 115). Together these features represent the outer wall of a substantial building in the north-east corner of the *insula*.

Few Roman remains were identified to the west of wall foundation F47. Roman demolition layer L12 was identified in tree-pit 2 but not excavated. It sealed accumulation layer L15 in both the inspection chamber and a manhole 3m west of the chamber. In the inspection chamber, sealed beneath L15 were another two demolition layers, L17 over L19. Layer L19 was thick (at over 0.85m) with the abundant remains of clay blocks, and it is highly likely to be part of the same clay block building(s) destroyed during the Boudiccan revolt and identified by Hull underneath the church.

Insula 30

Fig 14 also shows that (allowing for the 1m variation) robber trenches F75/F76 and F77/F79 also align with Hull's westernmost north/south wall of *Insula 30*. Hull records '...an impressive wall-trench running north to south and cutting down, it would appear, through everything. It is 4 feet thick, like that of the late building west of it, and even deeper founded. But of the structure of the building nothing remains' (Hull 1960, 317). If parts of the same building, these features represent the outer wall of a substantial building in the north-west corner of the *insula* that extends for a combined distance of 57m. However, it must be remembered that none of the robber trenches from the current investigations were excavated to confirm their identification.

Another three robber trenches were recorded to the east of this north/south wall alignment. They were L-shaped robber trenches F58 and F61 (aligned north/south and east/west) and east/west robber trench F78. Floor surface F52b was also identified in Gully pit 1 made of *opus signinum* and crushed tile. All these features probably related to the same post-Boudiccan building.

Excavations at 5-6 St Nicholas Street (CAT Report 1614) revealed another parallel north/south wall foundation 12.5m to the east of that recorded by Hull and during these current works. This foundation stood at c 1.06m wide and had survived to a height of 1.4m with approximately 2m of medieval robber trench above. It had been built within a substantial construction trench, with horizontal timber planks forming a frame within which courses of septaria and tile were laid into a light yellow/brown mortar.

Dating evidence from the excavations was sparse but suggested that the building was constructed during the first half of the 2nd century.

The Roman street between *Insula* 29 & 30

Metalling (L20-L21) against and to the east of wall foundation F47 must represent the remains of the Roman street between *Insulas* 29 and 30. It had survived at a depth of c 1.82m below current ground level and was recorded at c 0.6m thick. As seen on Fig 14, the results of the current groundworks have revealed that this specific street alignment on the Roman street grid, should be moved 1.5m to the east.

The pre-Boudiccan town

There was little opportunity to investigate earlier Roman remains during the current groundworks. Horizons of what looked like Boudiccan demolition debris were identified in isolated deep excavations, with the most important features being revealed in gully pit 1. Sealed beneath floor F52b were the remains of clay block wall F54 which were probably *in situ* and related to a possible floor layer(s) L36a/L37a. These probably represent the remains of a pre-Boudiccan clay block building.

The Roman finds

Given the size and scale of investigations, the Roman finds assemblage was modest and could best be described as typical for Roman Colchester. However, there are two important exceptions to this statement. The first being the gold rings that, made for a child, show a level of wealth and status afforded some of the inhabitants of the Roman town.

The second is the assemblage of native polychrome and imported white and polychrome marble which, together with the Kent Blaxhill material (recovered c 60m to the north-east) and other pieces of marble excavated from around *Insulas* 29 & 30, have been called nationally significant. These pieces of architectural veneer and paving were probably used to ornament luxurious public and private spaces¹⁰, and this material is likely to have been collected from many different sources in and around Roman Colchester (see Section 7.6). The sheer variety of imported pieces is important to understanding trade routes and Colchester's access to these high-status materials. The question as to why this material was collected here remains unanswered.

¹⁰ <https://romanresearchtrust.org/a-veneer-of-empire-decorative-stonework-in-roman-colchester-awarded-2022/>

9 Acknowledgements

CAT thanks Colchester Amphora Trading Ltd for commissioning and funding the work. The project was managed by A Wightman and C Lister, fieldwork was carried out by B Holloway, N Rayer and A Wade with M Beale, Z Eksen, H Furniss, T Lawrence, R Mathieson, M Perou, X Smith, S Veasey and O Windridge. Figures are by B Holloway, E Holloway and L Pooley. The project was monitored for CCC by Dr Richard Hoggett.

10 References

Note: all CAT reports, except for DBAs, are available online in PDF format at <https://catuk.org/online-reports/>

- Allen, J. R. L. & Fulford, M. G. 2004. 'Early Roman mosaic materials in southern Britain with particular reference to Silchester (*Calleva Atrebatum*): a regional geological perspective', *Britannia* **35**, 9-38.
- Arkell, W.J., Wright, C.W., Osborne White, H.J. 1947. *Geology of the Country around Weymouth, Swanage, Corfe and Lulworth: Explanation of Sheets 341, 342, 343 With Small Portions of Sheets 327, 328, 329*. Memoirs of the Geological Survey of Great Britain: England and Wales. [HMSO](#)
- Assis, S. & Codhina, S. 2010. 'Metastatic Carcinoma in a 14th-19th Century Skeleton from Constância (Portugal)', *International Journal of Osteoarchaeology* **20**, 603-620.
- Assis, S. & Garcia, J. 2023. 'A rare femoral heterotopic bone formation in a 14th-19th century female skeleton from Constância (Portugal)', *International Journal of Paleopathology* **40**, 93-98.
- BABAO. 2019a. *BABAO Code of Ethics*. British Association of Biological Anthropology and Osteoarchaeology.
- BABAO. 2019b. *BABAO Code of Practice*. British Association of Biological Anthropology and Osteoarchaeology.
- Bailey, G. 2016. *Buttons & Fasteners 500 BC-AD 1840*. Witham: Greenlight Publishing.
- Baker, P. & Worley, F. 2019. *Animal bones and archaeology: recovery to archive*. Swindon: Historic England.
- Ballin, T.B. 2021. *Classification of Lithic Artefacts from British Late Glacial and Holocene Periods*, Archaeopress Publishing Ltd, Oxford.
- Bello, J.S.R., Varón, D.F.C., Saavedra, J.L.R., Lugo, C.M.R., Mendez, J.N.P. & Salazar, L.R.M. 2024. 'The clay-shoveler's fracture, a rare occupational injury in the modern era: a case report', *Egyptian Journal of Neurosurgery* **39**(23).
- Betts, I., Black, E.W. & Gower, J. 1997. *A Corpus of Relief-Patterned Tiles in Roman Britain*. Oxbow: Journal of Roman Pottery Studies Volume 7.
- Bidwell, P.T. 1979. *The Legionary Bath-house and Basilica and Forum at Exeter: with a summary account of the Legionary Fortress*. Exeter Archaeological Reports **1**. Exeter, Exeter City Council.
- Bidwell, P. 1999. 'A survey of pottery production and supply at Colchester', in Symonds, R. & Wade, S. (eds.), *Colchester Archaeological Report 10: Roman pottery from excavations in Colchester, 1971-86*, 488-499. Colchester: Colchester Archaeological Trust Ltd.
- Bidwell, P. & Croom, A. 1999. 'The *Camulodunum*/Colchester type series', in Symonds, R. & Wade, S. (eds.), *Colchester Archaeological Report 10: Roman pottery from excavations in Colchester, 1971-86*, 468-487. Colchester: Colchester Archaeological Trust Ltd.
- Binford, L.R. 1981. *Bones: ancient men and modern myths*. New York: Academic Press.
- Bonifay, M. 2005a. *Dressel 30 - Keay 1A. Roman Amphorae: a digital resource*. University of Southampton (updated 2014), <https://doi.org/10.5284/1028192>
- Bonifay, M. 2005b. *Dressel 30 - Keay 1B. Roman Amphorae: a digital resource*. University of Southampton (updated 2014), <https://doi.org/10.5284/1028192>
- Borghini, G. 2004. *Marmi Antichi*. De Luca Editori d'Arte, Rome.
- Brodribb, G. 1987. *Roman Brick and Tile*. Gloucester: Alan Sutton.

- Brothwell, D.R. 1981. *Digging up Bones: The Excavation, Treatment and Study of Human Skeletal Remains*. London & Oxford: British Museum (Natural History) and Oxford University Press.
- Buikstra, J.E. & Ubelaker, D.H. 1994. *Standards for data collection from human skeletal remains*. Arkansas Archaeological Survey Research Series No.44.
- Butler, C. 2025. *Prehistoric flintwork*, Tempus Pub Ltd, London.
- Brown, N. & Glazebrook, J. 2000. *Research and Archaeology: A Framework for the Eastern Counties 2. Research agenda and strategy*. East Anglian Archaeology Occasional Paper 8 (EAA 8).
- Colchester City Council. 2021. *Brief for Archaeological Investigation at St Nicholas Square, Colchester*, by Dr R Hoggett. Colchester: Colchester City Council Planning Services.
- CAR 3. 1984. *Colchester Archaeological Report 3: Excavations at Lion Walk, Balmerne Lane, and Middleborough, Colchester, Essex*, by P Crummy. Colchester: Colchester Archaeological Trust.
- CAR 5. 1988. *Colchester Archaeological Report 5: The post-Roman small finds from excavations in Colchester 1971-85*, by P Crummy. Colchester: Colchester Archaeological Trust.
- CAR 7. 2000. *Colchester Archaeological Report 7: Post-Roman pottery from excavations in Colchester, 1971-85*, by Cotter, J.P. Colchester: Colchester Archaeological Trust Ltd.
- CAR 10. 1999. *Colchester Archaeological Report 10: Roman pottery from excavations in Colchester, 1971-86*, by Symonds, R. & Wade, S. (eds.). Colchester: Colchester Archaeological Trust Ltd.
- CAT. 2021. *Written Scheme of Investigation for an archaeological investigation at St Nicholas' Square, Colchester, Essex, CO1 1LB*, by E Holloway. Colchester: Colchester Archaeological Trust.
- CAT. 2023. *Health & Safety Policy*. Colchester: Colchester Archaeological Trust.
- CAT. 2024. *Health & Safety Policy*. Colchester: Colchester Archaeological Trust.
- CAT. 2025. *Health & Safety Policy*. Colchester: Colchester Archaeological Trust.
- CAT Report 1614. 2021. *Archaeological excavation at 5-6 St Nicholas Street and 60 Culver Street East, Colchester, Essex, CO1 1DW: June-July 2019*, by L Pooley. Colchester: Colchester Archaeological Trust.
- CAT Report 1625. 2021. *Archaeological evaluation at St Nicholas Square, Colchester, Essex, CO1 1LB: December 2020*, by M Baister. Colchester: Colchester Archaeological Trust.
- Le Cheminant, R. 1982. 'The development of the pipeclay hair curler – a preliminary study', *London Archaeologist* 3 (7), 187-191.
- ClfA. 2020a. *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*. ClfA Chartered Institute for Archaeologists; published 2014, revised 2020.
- ClfA. 2020b. *Standard and guidance for the collection, documentation, conservation and research of archaeological materials*. ClfA Chartered Institute for Archaeologists; published 2014, revised 2020.
- ClfA. 2023. *Code of Conduct*. ClfA Chartered Institute for Archaeologists; published 2014, revised 2023.
- ClfA. 2023a. *Standard for archaeological monitoring and recording*. ClfA Chartered Institute for Archaeologists.

ClfA. 2023b. *Universal guidance for archaeological monitoring and recording*. ClfA Chartered Institute for Archaeologists.

Collingwood, R.G. & Wright, R.P. 1965. *The Roman Inscriptions of Britain. 1. Inscriptions on Stone*. Oxford, Clarendon Press.

Cool, H.E.M. 1983. *A study of the Roman personal ornaments made of metal, excluding brooches, from southern Britain*. Thesis presented for the Degree of Doctor of Philosophy. University of Wales.

Coquelet, C., Creemers, G., Dreesen, R. & Goemaere, E. 2018. 'Life and after-life of Roman ornamental stones within the Civitas Tungrorum (Germania Inferior)', in Coquelet, C., Creemers, G., Dreesen, R. & Goemaere, E (eds) *Roman ornamental stones in north-western Europe. Natural resources, manufacturing, supply, life and after-life*. Proceedings of the International Conference 'Roman Ornamental Stones in North-Western Europe, Tongeren, 20-22 April 2016'. *Etudes et Documents Archaeologie* **38**, Namur, 225-252.

Cotter, J.P. 2000. *Colchester Archaeological Report 7: Post-Roman pottery from excavations in Colchester, 1971-85*. Colchester: Colchester Archaeological Trust Ltd.

Cox, A. 1996. 'Post-medieval dress accessories from recent urban excavations in Scotland', *Tayside and Fife Archaeological Journal* **2**, 52-9.

Crummy, P. 1971. 'Insula 30', *Transactions of the Essex Archaeological Society* **3**, 3rd series, Part 1, 107-111.

Crummy, P. 1997. *City of Victory. The Story of Colchester – Britain's first Roman town*. Colchester: Colchester Archaeological Trust.

Cunliffe, B. 1971. *Excavations at Fishbourne Volume II: The Finds*. Society of Antiquaries, London.

Davis, J. M. 1992. *A rapid method for recording information about mammal bones from archaeological sites*. Ancient Monuments Laboratory Report **19/92**. London: English Heritage.

De Ceukelaire, M., Dopere, F., Dreesen, R., Duser, M. & Groessens, E. 2014. *Belgisch marmer*. Gent: Academia Press.

Dobney, K. & Rielly, K. 1988. 'A method for recording archaeological animal bones: the use of diagnostic zones', *Circaea* **5(2)**, 79-96.

Dreesen, R., De Ceukelaire, M. & Ruppine, V. 2018. 'On the Roman use of 'Belgian marbles' in the Civitates Tungrorum and Beyond', in Coquelet, C., Creemers, G., Dreesen, R. & Goemaere, E (eds) *Roman ornamental stones in north-western Europe. Natural resources, manufacturing, supply, life and after-life*. Proceedings of the International Conference 'Roman Ornamental Stones in North-Western Europe, Tongeren, 20-22 April 2016'. *Etudes et Documents Archaeologie* **38**, Namur, 25-50.

Driesch von den, A. 1976. *A guide to the measurement of animal bones from archaeological sites*. Peabody Museum bulletin **1**. Massachusetts: Harvard University.

Dubarry de Lassale, J. 2006. *Identification des Marbres*. Editions H.Vial., 303p.

Dupertius, C.W. & Hadden, J.A. 1951. 'On the reconstruction of stature from long bones of American White and Negroes', *American Journal of Physical Anthropology* **10(4)**, 463-514.

Falys, C.G., Schutkowski, H. & Weston, D.A. 2005. 'The distal humerus – a blind test of Rogers' sexing technique using a documented skeletal collection', *Journal of Forensic Science* **50(6)**, 1298-93.

Galofré-Vilà, G., Hinde, A. & Guntupalli, A. 2017. 'Heights across the last 2000 years in England', *Discussion Papers in Economic and Social History* 151. Oxford: University of Oxford.

- Gascoyne, A. & Radford, D. 2013. *Colchester: Fortress of the War God. An archaeological assessment*. Oxford & Oakville: Oxbow Books.
- Genant, H.K., Wu, C.Y., van Kuijk, C., & Nevitt, M.C. 1993. 'Vertebral fracture assessment using a semiquantitative technique', *Journal of Bone and Mineral Research* **8**(9), 1137-48.
- Gnoli, R. 1971. *Marmora Romana*. Rome.
- Gurney, D. 2003. *Standards for field archaeology in the East of England*. East Anglian Archaeology Occasional Papers **14** (EAA **14**).
- Hawkes, C.F.C. & Hull, M.R. 1947. *Camulodunum. First Report on the Excavations at Colchester 1930-1939*. Reports of the Research Committee of the Society of Antiquaries of London **14**. Oxford: The Society of Antiquaries, London.
- Hayward, K.M.J. 2019. 'Worked stone', in Ridgeway, V. Taylor, J. & Biddulph, E., *A Bath House, Settlement, and Industry on Roman Southwark's North Island: Excavations along the route of Thameslink Borough Viaduct and at London Bridge Station*. Thameslink Monograph Series No. 1, Oxford Archaeology/Pre-Construct Archaeology, 361-371.
- Hayward, K.M.J. 2022. *The petrography and geological source of the marble inlays and paving stone from Fordham, Essex*. Unpublished report for Colchester Archaeological Group.
- Hayward, K.M.J. 2024. 'The decorative stone', in Morris, F.M. & Biddle, M. (in prep) *Venta Belgarum: Prehistoric, Roman, and Post-Roman Winchester*, Winchester Studies 3.i.
- Hillson, S. 2016. *Mammal bones and teeth: an introductory guide to methods of identification*. Abingdon: Routledge.
- Historic England. 2015. *Management of Research Projects in the Historic Environment (MoRPHE)*.
- Hull, M.R. 1958. *Roman Colchester*. Reports of the Research Committee of the Society of Antiquaries of London **20**. Oxford: The Society of Antiquaries, London.
- Hull, M.R. 1955. 'The south wing of the Roman forum at Colchester', *Transactions of the Essex Archaeological Society* **25**(1), 24-61.
- Hull, M.R. 1960. 'St Nicholas Church site, Colchester', *Transactions of the Essex Archaeological Society* **25**(3), 301-328.
- Inizan, M-L., Ballinger, M.R., Roche, H., Tixier, J., & Augustins, J.F. 1999. *Technology and Terminology of Knapped Stone followed by a multilingual vocabulary* (Arabic, English, French, German, Greek, Italian, Portuguese, Spanish). Nanterre: C.R.E.P.
- Isserlin, R.M.J. 1998. 'A spirit of improvement?: Marble and the culture of Roman Britain', in Laurence, R. & Berry, J. (eds.), *Cultural Identity in the Roman Empire*. Routledge: London and New York; 125-155.
- Janaway, R. 1998. 'An introductory guide to textiles from 18th and 19th century burials', in Cox, M (ed) *Grave concerns: death and burial in England 1700-1850*. CBA Research Report **113**, 17-32.
- Judd, M.A. 2008. 'The parry problem', *Journal of Archaeological Science* **35**, 1658-1666.
- Keay, S.J. 1984. *Late Roman Amphorae in the Western Mediterranean. A typology and economic study: the Catalan evidence*. Oxford: BAR International Series 196.
- Klemm, R. & Klemm, D. 2008. *Stone and Stone Quarries in Ancient Egypt*. London, British Museum publications.

- Lewis, M.E. 2004. 'Endocranial Lesions in Non-adult Skeletons: Understanding their Aetiology', *International Journal of Osteoarchaeology* **14**, 82-97.
- Litten, J. 1991. *The English Way of Death. The Common Funeral Since 1450*. London: Robert Hale Ltd. Reprinted 2002.
- Lovejoy, C.O. 1985. 'Dental wear in the Libben population: Its functional pattern and role in the determination of adult skeletal age at death', *American Journal of Biological Anthropology*, **68**(1), 47-56.
- Mays, S. 2017. *Guidance for Best Practice for the Treatment of Human Remains Excavated from Christian Burial Grounds in England*. Advisory Panel on the Archaeology of Burials in England (APABE) (2nd edition).
- Medlycott, M. 2011. *Research and archaeology revisited: A revised framework for the East of England*. East Anglian Archaeology Occasional Papers **24** (EAA **24**).
- MHCLG. 2023. *National Planning Policy Framework*. Ministry of Housing, Communities and Local Government.
- Milner, G.R. & Bolsden, J.L. 2012. 'Humeral and femoral head diameters in recent white American skeletons', *Journal of Forensic Science* **57**(1), 35-40.
- Mitchell, P.D. & Brickley, M. (eds.). 2018. *Updated Guidelines to the Standards for Recording Human Remains*. CIfA Chartered Institute for Archaeologists.
- North, J.J. 1991. *English Hammered Coinage. Volume 2: Edward I to Charles II, 1272-1662*. London: Spink & Son. Revised 3rd edition.
- ONS. 2015. *How has life expectancy changed over time?* Office for National Statistics. Available from: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/articles/howhaslifeexpectancychangedvertime/2015-09-09>.
- Ortner, D.J. 2012. 'Chapter 14: Differential Diagnosis and Issues in Disease Classification', in Grauer, A.L. (ed.) *A Companion to Paleopathology*. Oxford: Blackwell Publishing Ltd, 250-267.
- Ortner, D.J., Manchester, K., & Lee, F. 1991. 'Metastatic Carcinoma in a Leper Skeleton from a Medieval Cemetery in Chichester, England', *International Journal of Osteoarchaeology* **1**, 91-98.
- Özbek, M. 2012. 'Auditory exostoses among the prepottery neolithic inhabitants of Çayönü and Aşıklı, Anatolia; its relation to aquatic activities', *International Journal of Paleopathology* **2**, 181-186.
- Peacock, D.P.S. 1977. 'Roman amphorae: typology, fabric and origins', in *Méthodes classiques et méthodes formelles dans l'étude des amphores*, 261-278. Rome: Collection EFR 32.
- Price, M.T. 2007. *Decorative stone: The complete sourcebook*. Thames & Hudson, London.
- Pritchard, F.A. 1986. 'Ornamental stonework from Roman London', *Britannia* **17**, 169-89.
- Read, B. 2010. *Metal Buttons c.900 BC – c.AD 1700*. Langport: Portcullis Publishing.
- Reeve, J. & Adams, M. 1993. *The Spitalfields Project. Volume 1 – The Archaeology. Across the Styx*. CBA Research Report **85**.
- Roberts, C. & Manchester, K. 2010. *The Archaeology of Disease*. Cheltenham: The History Press (3rd edition).
- Ryan, P. 1996. *Brick in Essex from the Roman Conquest to the Reformation*. Chelmsford: Pat Ryan.

- Saville, A. 1980. 'On the measurement of Struck Flakes and Flake Tools', *Lithics* **1**, 16-20.
- Schaefer, M., Black, S. & Scheuer, L. 2009. *Juvenile Osteology: A Laboratory and Field Manual*. London: Elsevier.
- Schmid, E. 1972. *Atlas of animal bones: for pre-historians, archaeologists and quaternary geologists*. London: Elsevier Publishing Company.
- Seetah, K. 2019. *Humans, animals, and the craft of slaughter in archaeo-historic societies*. Cambridge: University Press.
- Silver, I.A. 1969. 'The ageing of domestic animals', in Brothwell D.R. & Higgs, E.S. (eds.) *Science in archaeology: a survey of progress and research*. London: Thames & Hudson, 282–302.
- Symonds, R. & Wade, S. (eds.) 1999. *Colchester Archaeological Report 10: Roman pottery from excavations in Colchester, 1971-86*. Colchester: Colchester Archaeological Trust Ltd.
- Tomber, R. & Dore, J. 1998. *The National Roman Fabric Reference Collection. A Handbook* (MoLAS Monograph 2). London: Museum of London Archaeology Service.
- Trotter, M. & Gleser, G.C. 1958. 'A re-evaluation of estimation of stature based on measurements of stature taken during life and of long bones after death', *American Journal of Physical Anthropology* **16**(1), 79-123.
- Trotter, M. 1970. 'Estimation of stature from intact limb long bones', in Stewart, T.D. (ed.) *Personal Identification in Mass Disasters*. Washington: Smithsonian Institution, 71-83.
- Tyers, P. 2022. *Mapping Roman pottery in Britain*, <https://atlas20.potsherd.net/>
- Villotte, S. & Knüsel, C.J. 2015. 'External auditory exostoses and prehistoric aquatic resource procurement', *Journal of Archaeological Science: Reports* **6**, 633-636.
- Warry, P. 2006. *Tegulae. Manufacture, typology and use in Roman Britain*. Oxford: BAR British Series **417**.
- Webb, H. & Norton, A. 2009. 'The medieval and post-medieval graveyard of St Peter-le-Bailey at Bonn Square, Oxford', *Oxoniensia*. Oxfordshire Architectural and Historical Society.
- Wheeler, A. & Jones, A.K.G. 1989. *Fishes. Cambridge Manuals in Archaeology*. Cambridge: Cambridge University Press.
- Whitehead, R. 1996. *Buckles 1250-1800*. Chelmsford: Greenlight Publishing.
- Williams, D.F. 2002. 'Purbeck marble in Roman and Medieval Britain', in Hinton, D.A. (ed.), *Purbeck Papers*. University of Southampton, Department of Archaeology Monograph 4. Oxford: Oxbow, 126-131.
- Williams, D. & Carreras, C. 1995. 'North African Amphorae in Roman Britain: a Re-appraisal', *Britannia* **26**, 231-252.
- Zienkiewicz, J. D. 1986. *The Legionary Fortress Baths at Caerleon 1. The Buildings*. Cardiff, National Museum of Wales/ Cadw: Welsh Historic Monuments.

Abbreviations

RIB 1 Collingwood & Wright 1965, cited as *RIB* I with item-number.

11 Abbreviations and glossary

CAT	Colchester Archaeological Trust
CCC	Colchester City Council
CCCAA	Colchester City Council Archaeological Advisor
CHER	Colchester Historic Environment Record
ClfA	Chartered Institute for Archaeologists
context	a single unit of excavation, which is often referred to numerically, and can be any feature, layer or find.
early medieval	the period from AD 410 to 1066
feature (F)	an identifiable thing like a pit, a wall, a drain: can contain 'contexts'
layer (L)	distinct or distinguishable deposit (layer) of material
medieval	the period from AD 1066 to 1540
modern	the period from AD 1901 to current
natural	geological deposit undisturbed by human activity
NGR	National Grid Reference
OASIS	Online Access to the Index of Archaeological InvestigationS, http://oasis.ac.uk/pages/wiki/Main
post-medieval	the period from AD 1540 to 1901
Roman	the period from AD 43 to 410
section	(abbreviation sx or Sx) vertical slice through feature/s or layer/s
wsf	written scheme of investigation

12 Contents of archive

Finds: Thirteen boxes

Human remains: Reburied in Colchester Cemetery, including the lead burial plaque for Sophia Ranson which was buried with her.

Digital record:

CAT Report 2187

CCC Brief, CAT written scheme of investigation

Digital photographs

Survey data

Site data

13 Archive deposition

The archive is currently held by the Colchester Archaeological Trust at Roman Circus House, Roman Circus Walk, Colchester, Essex CO2 7GZ, but will be permanently deposited with Colchester Museum (finds) and the Archaeology Data Service (digital).

© Colchester Archaeological Trust 2025

Distribution list:

Colchester Amphora Trading Ltd

Dr Richard Hoggett, Colchester City Council

Colchester Historic Environment Record

Appendix 1 Context list

Context	Finds no.	Interpretation	Description	Date
L1	-	Modern ground surface	Paving slabs, concrete, tarmac etc	Modern
L2a	-	Modern made-ground	In Oct-Nov 2023, L2 was assigned to a layer of modern made-ground seen in trial-holes 1, 2 and 7. No finds were recovered from this phase of work. Mid/dark grey/brown clayey silt with modern debris throughout.	Modern
L2b	5, 6, 7, 8, 14, 15, 54, 67, 69, 88, 91, 93, 107	Graveyard soil	In 2024, L2 was assigned to the layer of graveyard/burial soil, with residual finds of all dates and disarticulated human bone scattered throughout. All of the finds from L2 are from the 2024 phase of work. Soft moist medium/dark grey/brown silt.	Post-medieval /modern
L3	-	Tarmac	Trial-hole 7. Tarmac road surface, seals L4.	Modern
L4	-	Crush	Trial-hole 7. Soil and crush beneath L3.	Modern
L5	-	Undisturbed ground	Trial-hole 7. Assigned to the layer of undisturbed ground found in the base of trial-hole. This layer was never excavated.	Undated
L6	6	Construction spread/ metallised surface	St Nicholas Square ground reduction phase 1. Construction spread/metalled surface associated with burial chamber F13/F14. Roughly semi-circular, 2.5m long, 0.80m wide and up to 0.25m thick. Compact light yellow/brown sandy-silt, common small stones, brick, peg-tile, occasional oyster shell and bone fragments.	Post-medieval
L7	16, 17, 18	Graveyard soil	Tree-pit 2. Sealed by modern layers, seals L8 and F26. Covers tree-pit 2 to the north of F25. Soft moist very dark grey/brown/black loamy with charcoal flecks, oyster flecks, brick flecks, tile flecks	Modern/ post-medieval
L8	38, 52, 86	Graveyard soil	Tree-pit 2. Sealed by L7, seals L11. Very mixed due to multiple grave cuts. Common oyster shell, CBM & mortar, occasional clay pipe, septaria, painted wall plaster, iron nails and coffin handles. Soft moist medium grey/brown sandy loam.	Medieval/ post-medieval
L9	31	Accumulation	Tree-pit 2. Seals L11. Soft moist medium green/grey/ brown sandy silty clay with charcoal flecks, oyster flecks, brick flecks, tile flecks. It is likely that L11 is post-medieval, therefore L9 is probably also Graveyard soil.	Probably post-medieval.
L10	19, 27	Graveyard soil	Tree-pit 2. Up to 0.30m thick, found to south of F25. Firm moist very dark grey/brown sandy silty loam with charcoal flecks, oyster flecks, brick flecks, tile flecks	Medieval/ post-medieval
L11	33, 51	Mortar spread	Tree-pit 2. A hard white lime mortar with common small, rounded stones bedded on a layer of tightly packed small, medium and large septaria pieces and chippings in a weak mortar with occasional pieces of CBM. It could possibly be Roman or medieval but is perhaps more likely the base for F25 (if L11 is part of the same mortar spread as L23 and L24 then it probably sealed F47 and is therefore post-medieval). Sealed by F25, seals L12.	Roman, medieval or post-medieval

L12	40, 55, 102	Demolition layer	Tree-pit 2, Inspection chamber, Service trench east of inspection chamber and Road reduction (deep services). Mixed dump of demolition material. Mid orange/ reddish-brown sandy silt with common wall plaster, daub fragments and charcoal flecks, plus occasional Roman CBM and septaria. Inspection chamber – sealed by L23 and L24, cut but F47, seals L15. Service trench & Road reduction (deep services) – sealed by F25, seals L25.	Roman
L13	70, 71, 72, 85, 99, 108, 109, 167	Graveyard soil	Tree-pit 1. Very mixed graveyard soil. Frequent CBM, mortar, septaria; abundant disarticulated human remains including skulls; plus pot, iron nails, coffin fittings, clay pipe and glass.	Post-medieval
L14	89	Graveyard soil	Between F11 and tree-pit 2.	Post-medieval
L15	-	?Accumulation	Inspection chamber. A light to mid sandy silt sealed by L12 and sealing L17.	Roman
L16	92	Graveyard soil	In section of southern gully hole. Probably similar to L8, sealed by L2. Friable dry medium yellow/brown clayey silt sand with charcoal flecks, brick flecks, tile flecks and inclusions of: stone 10%	Medieval/ post-medieval
L17	-	Demolition debris	Inspection chamber. Layer of demolition debris probably associated with the wall that would have been built on foundation F46. Although given one layer number, there is a difference in the layers to the east and west of F47. To the east of F47 - yellow/brown mortar with loose chips/small fragments of septaria and Roman CBM. To the west of F47 - Scatter of loose chunks of white mortar with small pink op sig fragments. Sealed by L12, cut by F47, seals L19 and L22.	Roman
L18	-	Clay lens	Inspection chamber. Clay lens within L19.	Roman
L19	96, 101	Demolition debris	Inspection chamber. Thick layer of demolition debris, probably Boudiccan. A mid to dark reddish/orange/brown/black sandy silt, with abundant small, medium and large daub chunks. Occasional roman tile on interface with the possible natural beneath. To east of F46 - Sealed by L17. To west of F46 - Small patch close to wall foundation, sealed by L17 and sealing L22.	Roman
L20	97	Street metalling	Inspection chamber. Located to east of wall foundation F46 only. A thin layer of metalling, probably for the Roman street, 0.05-0.1m thick. Sealed by L22, seals L21. Compact small-medium rounded angular stones, rare roman CBM.	Roman
L21	-	Street metalling	Inspection chamber. Located to east of wall foundation F46 only. Thick (over 0.6m) layer of metalling, probably for the Roman street. A mid orange/brown sand with abundant small stones.	Roman
L22	-	Accumulation	Inspection chamber. Seen to east of F46 only. Possibly an accumulation layer over L20. Sealed by L17 and L19, seals L20. 0.08-0.12m thick. Friable moist dark brown sandy silt with charcoal flecks, daub flecks	Roman

L23	-	Mortar spread	Inspection chamber. Labelled as L11 in photographs, L23 is the mortar spread to the east of F47. Sealed by F25, seals L12. Uncertain relationship with F47, could possibly be Roman or perhaps the base for F25. If L23 is part of the same mortar spread as L11 and L24 then it probably sealed F47 and is therefore post-medieval. Firm grey/white mortar spread.	Roman, post-Roman or post-medieval
L24	98, 100	Mortar spread	Inspection chamber. Labelled as L11 in photographs, L24 is the mortar spread to the west of F47. Sealed by F25, seals L12. Uncertain relationship with F47, could possibly be Roman or perhaps the base for F25. If L24 is part of the same mortar spread as L11 and L23 then it probably sealed F47 and is therefore post-medieval. Loose grey/white mortar spread over mid-yellow brown sandy-silt, common small stones.	Roman, post-Roman or post-medieval
L25	106	Levelling layer/ demolition debris	Deep service trenches east of inspection chamber. Loose fragments of small-medium septaria pieces/chips and occasional Roman tile in a grey/brown sandy-silt. Sealed by L12, seals L17 and L26.	Roman
L26	-	Metalling	Deep service trenches east of inspection chamber. A compact, hard, metalling layer of small-medium rounded angular stones. Sealed by L25, seals L27.	Roman
L27	105, 159	Dump	Service trench east of inspection chamber and Road reduction (deep services). Fill A - Pale yellow/brown sandy-silt with mid reddish/orange daub fragments and charcoal. Fill B - Dark grey sandy-silt with mid green sandy-silt and fragments of oyster shell and charcoal. Fill C - Pale yellow/brown sandy-silt with mid reddish/orange daub fragments and charcoal. Sealed by L26, seals L20, 0.2->0.4m thick.	Roman
L28	-	?Accumulation	Service trench north-east corner of site to the south of St Nicholas House. Sealed by modern layers, seals L29. Soft/friable moist light grey/brown silty loam.	Undated
L29	-	?Accumulation or levelling	Service trench north-east corner of site to the south of St Nicholas House. Sealed by L28, seals L30. Friable/firm moist medium/dark grey/brown sandy silt and inclusions of: tile/brick 5%	Undated
L30	-	?Accumulation	Service trench north-east corner of site to the south of St Nicholas House. Sealed by L29. Friable moist light grey/brown silty loam with brick flecks.	Undated
L31	-	Sub base	Gully pit 1. Sub-base for the tarmac road of St Nicholas Street. High level of modern truncation (multiple service runs), some unstratified Roman material, 0.3-0.35m thick. Seals L32. Medium grey/brown silt.	Modern
L32	134, 135, 136	? Dark earth	Gully pit 1. Possible post-Roman dark earth horizon. Contains large quantity of re-deposited Roman material. 0.5-0.55m thick. Sealed by L31, seals L33. Firm moist dark grey/brown sandy silt	Medieval/ post-medieval

L33	122, 123, 126	Demolition horizon	Gully pit 1. Late Roman or early post-Roman demolition horizon, seals <i>in situ</i> Roman floor F52. Sealed by L32. 0.15-0.21m thick, firm moist grey/brown silt.	Late Roman/ early post-Roman
L34	-	?Demolition horizon	Gully pit 2. Possible Roman demolition horizon - clay deposit with occasional charcoal flecking. Identified in the base of gully pit, depth not established, firm moist medium brown clay.	Roman
L35a	-	Demolition debris / clay base	Gully pit 1. Possible Roman demolition debris or a clay base for F52b. 0.05-0.1m thick. Soil description not recorded. Sealed by F52b, seals L36a and F54.	Roman
L35b	113, 125	Graveyard soil	Service pit to south of St Nicholas House. Graveyard soil, c 0.3m thick.	Medieval / post-medieval
L36a	-	?Floor	Gully pit 1. Possible Roman floor with layer of occupation debris on the surface. 0.08-0.22m thick. Soil description not recorded. Sealed by L35a, seals L37a, associated with clay block wall F54.	Roman
L36b	-	Possible levelling	Service pit south of St Nicholas House. Possible Roman levelling/demolition layer, associated with L44, >0.35m thick. Firm moist light/medium orange/grey/brown silty clay and inclusions of: gravel 1% stone 1%	Roman
L37a	-	Clay layer	Gully pit 1. Clay layer, possibly part of L36a or an earlier floor/wall. >0.2m thick, sealed by L36a.	Roman
L37b	-	Unidentified layer	Service pit south of St Nicholas House. Graveyard soil, c 0.07-0.1m thick. Sealed by L35b, seals F56, F60, L36b and L44. Soft/friable moist dark grey sandy silty clay and inclusions of: stone 1% tile/brick 1%	Medieval / post-medieval
L38	-	?Late Roman/post-Roman demolition	Service pit to west of gully pit 2. Dark grey silty-clay with rare charcoal, and occasional small mortar/CBM fragments, possibly equal to L34? Up to 240mm thick. Sealed by L40, seals L39, cut by L41. Firm moist dark grey/brown silty clay with charcoal flecks	Roman
L39	-	?Floor bedding	Service pit to west of gully pit 2. Possible bedding layer for a Roman floor, made of op sig and pieces of Roman CBM, 0.08-0.12m thick, solid and compact but not very hard. Sealed by L38, seals L42, cut by L41.	Roman
L40	-	Dump/levelling	Service pit to west of gully pit 2. Thick layer sealing all archaeological horizons, seals L38, L41 and F59. Hard moist dark grey/brown sandy silty clay and inclusions of: stone 1% tile/brick 1%	Post-medieval / modern
L41	121	Fill of robber trench	Service pit to west of gully pit 2. Probable fill of a post-Roman (medieval?) robber trench associated with (and seals) F58. Both L41 and F58 are a part of the same robber trench. Upper part of layer contains more mortar flecks. Medium/dark grey sandy silty clay.	?Medieval
L42	-	Levelling layer	Service pit to west of gully pit 2. Up to 160mm thick. Sealed by L39, seals L43, cut by F58. Firm moist medium/dark grey/brown silty clay with charcoal flecks and inclusions of: stone 1% tile/brick 1%	Roman

L43	-	Unidentified layer	Service pit to west of gully pit 2. Unidentified layer, sealed by L42, identified at the base of the service pit but not excavated, cut by F58. Firm moist medium grey/brown silty clay with charcoal flecks, tile flecks. Inclusions include white plaster/mortar flecks.	Roman
L44	120	Demolition layer	Service pit south of St Nicholas House. Thick layer full of brick and tile, likely a demolition layer associated with L36b, cut by F56 and F60. Observed at 0.7m from top of concrete, >0.42m thick. Hard dry medium brown silt with brick flecks and inclusions of: tile/brick 80%	Roman
L45	-	Demolition debris	Service pit to west of gully pit 2. c 0.01-0.04m thick, thin band/layer of soft mortar, seals L39, sealed by L38. Soft moist medium brown sandy mortar	Roman
L46	129	Demolition layer	Service trench south of gully pit 2 and pit to west. Possible Boudiccan demolition layer, full of CBM, bone, pot and charcoal, approx. 0.3m thick, found in south of trench. Firm moist dark brown silt with charcoal flecks, brick flecks, tile flecks	Roman
L47	139	Dump/levelling layer	Culver Street East ground reduction (western end). To the south of F62, sealed by L49. Exposed in base of stripped area (c 0.7m bgcl) but not excavated. Soft light/medium orange/green/grey sandy silt and inclusions of: stone 1% and lime flecks.	Post-medieval
L48	-	Metalling / Metalled surface	Culver Street East ground reduction (western end). To the north of F62, sealed by L50. Exposed in base of stripped area (c 0.8m bcgl) but not excavated. Common stone with some large pebbles/stone and patches of reddish crushed CBM. Probably part of the same area of metalling/metalled surface as F25 recorded to the west and L52 & L53 recorded to the east. Soft moist grey/brown sandy silty clay with brick flecks, tile flecks and inclusions of common stone.	Post-medieval
L49	-	Mortared peg-tile	Culver Street East ground reduction (western end). Relationship with F62 is not clear but it is only present on southern side of that feature. Probably >0.1m thick, seen in a limited area on the southern edge of the reduction area at c 0.65m deep. Appears to consist of roughly mortared random peg-tile fragments (possibly some brick). Mortar is soft, white and very slightly sandy. Sealed by L50, seals L47. Probably associated with L48 and F52.	Post-medieval
L50	-	Build-up/levelling layer	Culver Street East ground reduction (western end). This number was given to all the post-medieval and modern deposits between ground level and L49 beneath. Multiple services cut through this layer. Seals L49. Soft moist medium/dark grey/brown sandy silt with brick flecks, tile flecks and inclusions of: stone 1% tile/brick 1%	Post-medieval/modern
L51	-	Redeposited demolition debris	Culver Street East ground reduction (western end). A very small area of distinct orangey sandy silt containing patches of opus signinum and small roman CBM flecks and fragments. Truncated on all sides, cut by F65. Probably redeposited Roman material. Firm dry light yellow/orange silty sand with brick flecks, tile flecks.	Medieval/post-medieval
L52	-	Metalling / Metalled surface	Culver Street East ground reduction (western end). Patches of orange/brown silty sand with stone and gravel. Probably part of the same area of metalling/metalled surface as	Post-medieval

			F25 and L48 recorded to the west and L53 recorded to the east. Soft moist light/medium orange/brown silty sand and inclusions of: gravel 2% stone 5%	
L53	-	Metalling / Metalled surface	Deep services at southern end of St Nicholas Street. Compact, small, rounded angular stones, occasional roman tile chips. Thickness 0.07m-0.34m. Sealed by F25, seals L54. Probably part of the same area of metalling/ metalled surface as F25, L48 and L52 recorded to the west. Hard very dark grey/brown and inclusions of: stone 40%	Post-medieval
L54	-	Mortar layer	Deep services at southern end of St Nicholas Street. Compact off white lime mortar in a mid-grey/brown sandy silt mix, rare roman, tile, septaria. Thickness 0.03-0.1m. Sealed by L53, seals L55. Probably the same as L11.	Post-medieval
L55	-	Made ground/levelling	Deep services at southern end of St Nicholas Street. A clean, mid orange/brown sandy layer, no inclusions. Thickness 0.08-0.14m. Sealed by L54, seals L56. Firm moist medium orange/brown sand and inclusions of: stone 1%	Medieval/ post-medieval
L56	-	Levelling	Deep services at southern end of St Nicholas Street. Probable levelling layer. Thickness 0.22-0.42m. Sealed by L55, seals L57. Mid yellow/grey/brown sharp sand/silt with oyster and mortar flecking, occasional roman tile chips.	Roman/ post-Roman
L57	-	Floors	Deep services at southern end of St Nicholas Street. Four phases of floor, probably associated with robber trench F75. Representative section 1: A: Off white lime mortar, c 0.04m thick. B: Mid yellow/grey/brown sandy-silt, 0.05-0.07m thick. C: Off white lime mortar, c 0.03m thick. Representative section 2: A: Off white mortar, 0.02m thick. B: Mid yellow/grey/brown sandy-silt, 0.06-0.1m thick. C: Off white lime mortar, c 0.02m thick. D: Dark grey/brown reddish/brown sandy-silt, c 0.12m thick. E and F: Off white lime mortar, c 0.02m thick. Sealed by L56, seals L58. Also seen in north, south and east sections of large manhole to the north.	Roman
L58	162, 165, 166	?Boudican demolition debris	Deep services at southern end of St Nicholas Street. Very mixed dump layer which includes common lumps (large, medium and small) of daub. Approximately 0.4m+ thick. Also Seen in north, south and east sections of large manhole to the north. Sealed by L57, seals L59. L59 is a lens within L58. Soft moist medium/dark reddish/grey/brown sandy silt with charcoal flecks, oyster flecks, small-large daub pieces, tile flecks.	Roman
L59	164	Dirty sand	Deep services at southern end of St Nicholas Street. A mid yellow/orange sand with charcoal and daub flecking within L58.	Roman
L60	163	Graveyard soil	Gully pit 5. Labelled L13 in photographs. Contains disarticulated human bone.	Post-medieval

			L60 didn't continue beyond F75 indicating that it is possibly the eastern limit of churchyard. Thickness c 0.8m. Soft moist very dark grey/brown sandy loam with charcoal flecks, oyster flecks, brick flecks, tile flecks	
L61	-	Modern surfaces	Long Wyre Street. Brick road bedded on sharp sand, then sand on tarmac. Overall thickness c 0.30m.	Modern
L62	-	Accumulation/levelling	Long Wyre Street. Thickness varies up to 0.20m. Seen in north and west facing sections. Sealed by L61, seals L63 and L64. Firm moist medium/dark grey/brown/ black sandy loam with charcoal flecks, oyster flecks, brick flecks, tile flecks.	Post-medieval
L63	-	<i>Opus signinum</i>	Long Wyre Street. Remnant of <i>opus signinum</i> seen in section, possibly part of a floor, impossible to determine whether in situ or not. c 0.5m across by up to 0.1m thick. Sealed by L62, seals L64.	?Roman
L64	171	Levelling/dump layer	Long Wyre Street. Mixed levelling/dump layer with occasional roman tile pieces, common oyster shell, charcoal, <i>opus signinum</i> , daub flecking. Over 0.2m thick. Sealed by L62 and L63. Soft moist medium/dark yellow/grey/brown sandy silt with charcoal flecks, oyster flecks, daub flecks, tile flecks	Roman
L65	-	Accumulation/levelling	Long Wyre Street. A very mixed layer with septaria, mortar, animal bone, oyster shell - none retained. Sealed by L62, cut by F78 and F84, seals L66. Firm moist medium/dark yellow/grey/brown sandy silt with charcoal flecks, oyster flecks, tile flecks	Medieval/ post-medieval
L66	-	?Floor	Long Wyre Street. Thin lenses of dark grey to black and mid yellow brown silts and daub spread. Sealed by L65, seals L67. Firm moist light/medium/dark yellow/grey/ brown sandy silt with charcoal flecks, oyster flecks, daub flecks	Roman
L67	172	Dump/demolition layer	Long Wyre Street. Thickness unknown, mixed dump with inclusions of <i>opus signinum</i> , oyster shell, mortar, cbm fragments. Sealed by L66. Loose/soft moist medium/dark green/grey/brown sandy silt with charcoal flecks, oyster flecks, daub flecks, tile flecks	Roman
L68	-	Levelling	Far eastern end of Culver Street East. General number given to the heavily disturbed layer(s) of material forming the levelling below the old road surface at the junction. Cut by numerous modern services. Up to 0.5-0.75m thick. Animal bone and various CBM fragments including one piece of Roman tegula - none kept. Soft moist dark orange/grey/brown sandy silt with brick flecks and inclusions of: gravel 1% stone 1%	Post-medieval
F1	1, 3, 4	Inhumation burial	East/west orientated grave under pavement in trial-hole 7. In difficult position to record. Partial upper body exposed, the rest is beyond the limit of excavation (LOE). Encountered at c 0.8m bcgl. 0.4m wide from shoulder to shoulder. All bone visible was lifted for post-excavation analysis. Finds include pottery, coffin nails and other coffin furniture.	Medieval/ post-medieval
F2	9, 11	Burial chamber	St Nicholas Square ground reduction 1. Brick burial chamber aligned east/west. It consisted of a deep burial chamber, a single brick thick, built in the shape of the coffin (size not recorded). The walls were whitewashed with the top two rows of brick painted	Post-medieval

			black. The chamber was sealed with three large stone slabs, which were lifted to access the chamber beneath. Inside the chamber was a wooden coffin in poor condition with lid caved in. A decorative metal plate was visible on top of the lid. Above the coffin were two iron ties supporting the walls of the chamber. There was at least one more coffin underneath the first. Both coffins were resting on iron bars. The coffins were left in situ and the chamber resealed with the development taking place around/above it. Set on the stone slabs was a rectangular brick foundation (2.1m long by 1.1m wide) with additional walls to the east and west. This probably supported a monument above the chamber. These were removed as part of the development. The bricks used were red and unfrogged (225 x 110 x 65mm) and possibly laid in Portland cement.	
F3	-	Burial chamber	St Nicholas Square ground reduction 1. Brick burial chamber, probably double width, aligned east/west, c 2.7m long by 2.2m wide. Originally vaulted but most of vault now missing, consequently it had been backfilled with soil, stone and rubble, including a small quantity of disarticulated human bone. The fill was machine excavated to a depth of 1.2m and no in situ burials were encountered. Damage/backfill probably occurred at the same time as the churchyard was cleared/new brick boundary wall built. Made of red unfrogged bricks (225 x 110 x 65mm).	Post-medieval
F4	-	Gravestone 1	St Nicholas Square ground reduction 1. <i>In situ</i> base of gravestone	Post-medieval
F5	-	Gravestone 2	St Nicholas Square ground reduction 1. <i>In situ</i> base of gravestone	Post-medieval
F6	-	Gravestone 3	St Nicholas Square ground reduction 1. <i>In situ</i> base of gravestone	Post-medieval
F7	-	Gravestone 4	St Nicholas Square ground reduction 1. <i>In situ</i> base of gravestone	Post-medieval
F8	-	Gravestone 5	St Nicholas Square ground reduction 1. <i>In situ</i> base of gravestone	Post-medieval
F9	-	Gravestone 6	St Nicholas Square ground reduction 1. <i>In situ</i> base of gravestone	Post-medieval
F10	12	Burial chamber	St Nicholas Square ground reduction 1. Burial chamber aligned east/west, 2.6m by 1.28m. Coffin-shaped chamber sealed by four large stone slabs; these were lifted and the chamber photographed. The top coffin was covered in a thin loose layer of soil obscuring any coffin plates, etc. There were at least another two coffins beneath, with all coffins stacked on iron bars. The walls were whitewashed with the top two rows painted black. The coffins were left <i>in situ</i> , and the chamber backfilled and resealed. On top of the slabs was a rectangular red brick foundation, 2-3 bricks thick, for an above ground monument. These were removed as part of the ground reduction. The bricks used are red and unfrogged (240 x 110 x 65mm), possibly laid in Portland cement. The slabs were much higher than those of F2.	Post-medieval
F11	10	Soakaway	St Nicholas Square ground reduction 1. Brick lined soakaway, rectangular (1.31m by 0.93m internally) dug to roughly 0.7m deep and not bottomed. Fill contained a soft, moist, grey/brown silt with 20th-century glass bottles, rubble and a small quantity of disarticulated human bone. Probably backfilled when the church was demolished in the 1950s.	Post-medieval, backfilled c 1955

F12	-	Burial chamber	St Nicholas Square ground reduction 1. Brick burial chamber sealed with limestone slabs which had already partially collapsed. The chamber was coffin-shaped, and the walls had been whitewashed with two rows of brick (6&7 rows deep) painted black. The slabs were lifted, and the chamber partially backfilled without archaeological supervision so there are no photographs of the coffin. Coffin left in situ, chamber backfilled and resealed. 2.5m long, 1.1m wide, >1.70m deep.	Post-medieval
F13/F14	-	Burial chamber	St Nicholas Square ground reduction 1. Originally given two separate numbers (F13 and F14) but part of the same burial chamber. A brick chamber aligned east/west. The chamber was coffin-shaped, one brick thick and whitewashed. The chamber was sealed with large stone slabs (number not recorded) which were lifted to access the chamber. There was at least one deep coffin with room on top for more to be buried. The coffins were left in situ and the chamber resealed and reburied. Excavation revealed a substantial foundation for a funerary monument (2.56m long by 1.4m) on top of the slabs with three north/south brick walls across the chamber, which were one brick thick and had survived at five courses high. These were removed as part of the ground reduction.	Post-medieval
F15	-	Inhumation burial	St Nicholas Square ground reduction 1/Tree-pit 1. Grave probably belonging to F7 head stone. Not excavated and ground reduction in tree-pit 1 did not expose the skeleton. Now preserved beneath the development.	Post-medieval
F16	-	Burial chamber	St Nicholas Square ground reduction 1. Vaulted burial chamber, east/west aligned. Vault removed to formation level, chamber backfilled and burial preserved in situ. This was done without archaeological supervision so there are no photographs of the inside of the chamber. 2.4m long, 1m wide.	Post-medieval
F17	-	Gravestone	St Nicholas Square ground reduction 1. <i>In situ</i> base of gravestone.	Post-medieval
F18	-	Gravestone	St Nicholas Square ground reduction 1. <i>In situ</i> base of gravestone.	Post-medieval
F19	-	Gravestone	St Nicholas Square ground reduction 1. <i>In situ</i> base of gravestone.	Post-medieval
F20	13	Burial chamber	St Nicholas Square ground reduction 1. Brick burial chamber aligned east/west. 2.30m long, 0.85m wide. Capped with limestone slabs, partially collapsed to the west by large concrete post removal. No evidence of any structural remains above the slabs. Chamber backfilled and preserved <i>in situ</i> .	Post-medieval
F21		Burial chamber	St Nicholas Square ground reduction 1. Brick burial chamber aligned east/west. 1.75m long, 0.9m wide. Capped with limestone slabs, coffin c 0.55m below slabs with coffin plaque visible. No evidence of any structural remains above the slabs, but there was a plinth (0.6m long, 0.28m wide) for a gravestone at the western end of the chamber. Chamber backfilled and preserved in situ.	Post-medieval
F22		Modern cut feature	St Nicholas Square ground reduction 1. Evaluation feature F2. Cuts F23.	Modern
F23		Burial chamber	St Nicholas Square ground reduction 1. Evaluation feature F1.	Post-medieval

			Brick burial chamber aligned east/west. Possibly originally capped with limestone slabs. Chamber not excavated and preserved in situ. 2.35m by 1.05m.	
F24		Burial chamber	St Nicholas Square ground reduction 1. Evaluation feature F3. Brick burial chamber aligned east/west. Possibly originally capped with limestone slabs. Chamber not excavated and preserved in situ. 2.05m by 0.85m.	Post-medieval
F25	32, 41, 44, 95, 103, 104	Metalling / Metalled surface	Tree-pit 2, Inspection chamber, Road reduction. Compact small-medium rounded and angular stones, occasional Roman CBM and oyster shell fragments. Sealed by modern layers/cut by modern features, covers whole southern half of tree pit 2, the inspection chamber and was seen in services to the east of the chamber. In different places recorded as sealing L12, L23, L24.	Post-medieval
F26	20	?Pit/pits	Tree-pit 2. Possibly two features. Fill A: dark grey/brown sandy-silt occasional roman tile, op sig, oyster shell and charcoal. Fill B: very dark grey/brown/black slightly clayey loam, common charcoal and oyster shell, occasional CBM fragments.	Post-medieval
F27	21, 22, 23	Inhumation burial	Tree-pit 2. Aligned east/west. Partial in situ skeleton plus other disarticulated remains, some coffin nails present. 1.20m long, 0.39m wide. Sealed by modern layers. Soft moist medium grey/brown sandy loam with charcoal flecks, oyster flecks.	Medieval/ post-medieval
F28	23, 25, 26	Inhumation burial	Tree-pit 2. Aligned east/west. Truncated by modern services and only left side of body has partially survived (leg and arm). Sealed by modern layers. Soft moist medium/dark grey/ brown sandy loam with charcoal flecks, oyster flecks, tile flecks and inclusions of: stone 1%	Medieval/ post-medieval
F29	30	Part of F25 or foundation	Tree-pit 2. Possibly associated with F25 (a phase of repair) or part of a foundation. Consists of mortared septaria, Roman tile and small rounded stones. 1.20m long, 0.80m wide, 0.2m thick. Sealed by modern layers.	Post-medieval
F30	28, 34, 35	Inhumation burial	Tree-pit 2. East/west aligned. Plaque found marking the grave as that of Sophia Ransom, 1810-1824. Partially truncated when machining. Soft dry medium/dark grey/brown sandy loam.	Post-medieval, 1824
F31	29, 37, 53	Pit	Tree-pit 2. Loose/soft dry medium/dark grey/brown sandy loam with charcoal flecks, oyster flecks, brick flecks, tile flecks and inclusions of: stone 1%	Post-medieval
F32	36	Possible pit	Tree-pit 2. Mostly outside of the excavation area, so there was very little investigate. Loose dry medium/dark grey/brown sandy loam with charcoal flecks, oyster flecks, brick flecks, tile flecks and inclusions of: stone 1%	Post-medieval
F33	42, 43, 46, 47, 48	Inhumation burial	Tree-pit 2. East/West aligned. Lower legs, feet and left arm cut by large feature. skull damaged by overhead gas pipe. Coffin nails & mineralised wood found. Soft dry dark grey/brown sandy silty loam with brick flecks and inclusions of: stone 5%	Medieval/ post-medieval
F34	39	Robber trench	Tree-pit 2. North/south aligned, loose mid-dark grey/brown silty-loam, abundant loose small-large mortar pieces, occasional Roman CBM and septaria fragments.	Medieval

F35	50, 65	Pit	Tree-pit 2. Probable pit, only excavated to 0.20m deep. Soft/friable dry medium/dark grey/brown sandy silty loam and inclusions of: stone 5%, tile/brick 2%	Post-medieval
F36	45	Pit	Tree-pit 2. Loose/soft moist dark grey/brown loamy with charcoal flecks, oyster flecks, tile flecks and inclusions of: stone 1%	Medieval
F37	56, 59, 61, 62, 66	Inhumation burial	Tree-pit 2. East/West aligned, upper body covered by iron sheet (possibly a name plate), preserved wood on base with black tar-like substance and coffin nails. Soft moist grey/brown sandy loam with charcoal flecks, oyster flecks, brick flecks, tile flecks and inclusions of: stone 1%, tile/brick 1%	Medieval/ post-medieval
F38	57, 58, 60, 63, 64	Inhumation burial	Tree-pit 2. East/West aligned. Truncated on left hand side, left side lower than right side probably sunken into underlying feature. Finds 64, 66 disarticulated human bone possibly associated with this feature. Soft moist dark grey/brown sandy loam with charcoal flecks, oyster flecks, brick flecks and inclusions of: stone 1%, tile/brick 1%	Medieval/ post-medieval
F39	81, 82	Inhumation burial	St Nicholas Square service trenches. E/W aligned. Lower body truncated by F13/F14. Cuts inhumation burial F42, and associated with a lot of disarticulated human remains including skulls and a pelvis. Loose/soft moist very dark grey/brown sandy loam	Medieval/ post-medieval
F40	73, 74, 75, 76, 80	Inhumation burial	St Nicholas Square ground reduction 2. Evaluation feature F5. E/W aligned grave in poor condition. Skeleton has frequent breaks and damage, residual remains including a second human skull and baby bones/ teeth. Iron at top of skull (0.2m in width) probably part of coffin handle.	Medieval/ post-medieval
F41	77, 78, 79	Inhumation burial	St Nicholas Square ground reduction 2. E/W aligned badly disturbed, truncated on east side by F20, including arm, part of pelvis, legs and part of the lower left leg, skull present but crushed. Just above the pelvis are a number of copper-alloy tacks. Soft moist dark grey/brown loamy	Medieval/ post-medieval
F42	83, 84	Inhumation burial	St Nicholas Square service trenches. E/W aligned, truncated by F13/F14. Interred next to burial F39 and associated with a lot of disarticulated human remains. Loose/soft moist dark grey/brown loamy	Medieval/ post-medieval
F43	68	?Inhumation burial	St Nicholas Square service trenches. Probable east/west inhumation. Skull impacted by machine and was lifted, cut of feature not fully determined and it was not excavated. Probably an inhumation but could also be a disarticulated skull. Found c 0.8m bcgl. Soft dry medium/dark grey/brown loamy clay silt and inclusions of: stone 5%	Medieval/ post-medieval
F44	-	?Inhumation burial	St Nicholas Square service trenches. Probable east/west inhumation. Skull identified but left <i>in situ</i> , cut of feature not fully determined and it was not excavated. Probably an inhumation but could also be a disarticulated skull. Found c 0.9m bcgl, at least 0.3m wide. Soft dry medium/dark grey/brown loamy clay silt	Medieval/ post-medieval
F45	87, 94	Inhumation burial	St Nicholas Square service trenches. Roughly aligned E/W and mostly outside of the limit of excavation. Visible at 0.61m bcgl. At least 0.8m wide. Firm dry dark silt.	Medieval/ post-medieval

F46	-	Robber trench	Inspection chamber. North/south aligned robber trench. Very dark grey/brown loam with common mortar, occasional septaria, roman tile and oyster shell. Robbing starts at 0.9m below bcgl, 1.3m wide. Seals wall foundation F47.	Medieval
F47	-	Wall foundation	Inspection chamber. North/south aligned <i>in situ</i> foundation made of tightly packed small, medium and large septaria blocks in a white mortar. 1.2m wide, base not found.	Roman
F48	-	Burial chamber/ structure	St Nicholas Square service trenches. East/west aligned, continues to the east under the limit of excavation. Appears to be rectangular in plan. Predominantly made of septaria blocks with rare roman tile in a lime mortar. Over 2.1m long, 1.4m wide and recorded to a depth of at least 0.6m. Wall width 0.3-0.4m. Cut by services and sealed by a concrete slab.	Medieval/ post-medieval
F49	-	?Pit/ditch	St Nicholas Square service trenches. Cut feature only seen in section, cuts F25 and L12. Probably a pit or perhaps even a cut for an old service, 1m wide, 0.7m deep. Friable light/medium/dark grey/brown sandy silt and inclusions of: stone 20%	Post-medieval/ modern
F50	-	Burial chamber	St Nicholas Square ground reduction 2. Brick burial chamber, aligned E/W, disappearing under limit of excavation to north, not excavated. 2.78m long, over 1.7m wide. Sealed by concrete.	Post-medieval
F51	-	Burial chamber	St Nicholas Square ground reduction 2. Probable remains of a brick burial chamber, consisting of a small length of red brick wall that was not investigated any further. East/west aligned, 0.97m long, two courses wide, 0.22m. Sealed by concrete slab.	Post-medieval
F52a	111, 131	Inhumation burial	St Nicholas Square service trenches. Aligned east/west, has suffered truncation with skull and right arm missing. Grave cut not clear, c 2m long, two coffin handles also recovered from east end of coffin.	Post-medieval
F52b	111, 124	Floor	Gully pit 1. Roman floor surface made of op sig and tile, 0.15m thick, sealed by deposit L33, seals L35. Sealed by L33, seals L35.	Roman
F53	-	Sewer easement	Gully pit 2. Easement cut for modern sewer, sealed by L31, cuts L34. Firm moist dark grey/brown silt.	Modern
F54	112	Clay block wall	Gully pit 1. Fragmentary remains of clay block wall, possibly in situ and on an E/W alignment but could be demolition material. Continues beyond LOE, observed width >350mm. Over 350mm thick. Had been scorched by intense heat. Sealed by L35, cuts or contemporary with L36.	Roman
F55	115, 116, 117, 118	Inhumation burial	Service pit to south of St Nicholas House. Partial E/W aligned burial, skull is missing, and lower legs outside of the limit of excavation. Finds include a copper-alloy finger ring and two iron coffin studs.	Post-medieval
F56	119, 127	Inhumation burial	Service pit to south of St Nicholas House. Partial inhumation burial, E/W aligned, significantly truncated by later grave cut F55. Friable moist medium grey/brown sandy silt.	Medieval/ post-medieval

F57	-	Possible grave cut	Service pit to south of St Nicholas House. Small cut feature in corner of service pit, possibly a grave, no bone was observed but the top of the cut was identified at formation level, so no further excavation was undertaken. Friable moist dark grey sandy silt.	Post-medieval
F58	-	Robber trench	Service pit to west of gully pit 2. ?Medieval robber trench associated with (and sealed by) L41. Both L41 and F58 are a part of the same robber trench. Recorded for a distance of c 1m, at 0.3m wide and >0.2m deep, and aligned north/south before turning east/west.	Medieval
F59	-	Pit(s)	Service pit to west of gully pit 2. Pit(s) F59 was a large feature covering most of the pit. It appears to be truncated by robber trench L41/F58.	?Roman / post-Roman
F60	-	Unidentified cut (pit?)	Service pit to south of St Nicholas House. Identified in section only, 270mm deep, 430mm wide, could be Roman or post-Roman. Firm moist dark grey/brown silt	Roman
F61	133	Robber trench	St Nicholas Street ground reduction, far northern end. Possible medieval robber trench, unexcavated but identified at depth of 0.75m from modern kerb height. Emerges from LOE in north-east end of road strip, aligned roughly east-west, turns at 90 degrees and heads south. Roughly 0.7m wide. Roman CBM and oyster observed in fill. Soft dark grey/brown silt with oyster flecks, brick flecks, tile flecks.	?Medieval
F62	138	Unidentified linear feature	Culver Street East ground reduction (western end). East/west linear cut, exposed in base of stripped area (c 0.75m bcgl), 0.6m wide. Not excavated. Cuts L48/L49. Loose/soft moist medium/dark grey/brown sandy silt and inclusions of: stone 1% tile/brick 1%	Post-medieval/modern
F63	140, 144, 145, 146	Inhumation burial	Culver Street East ground reduction (western end). Truncated by manhole to the west, only the legs survive with other disarticulated bone. The decaying wood from the side of the coffin is still evident, nails, studs and handles all identified. Soft moist dark grey sandy silt and inclusions of: stone 1% tile/brick 1%	Post-medieval
F64	147	Inhumation burial	Culver Street East ground reduction (western end). Articulated right arm of an inhumation burial, most of the burial is located beyond this northern limit of excavation, c 0.75m bcgl. Soft moist dark grey sandy silt and inclusions of: stone 1%	Medieval/post-medieval
F65	148, 149	Inhumation burial	Culver Street East ground reduction (western end). East/west aligned. Truncated burial - only right arm and hand visible, c 0.75m bcgl. Northern side of grave truncated by F66. Soft moist dark grey sandy silt and inclusions of: stone 1% tile/brick 1%	Medieval/post-medieval
F66	143	Manhole	Culver Street East ground reduction (western end). Number given to area of disturbance truncating burials F64 and F65. Originally identified as modern pits this is actually an area of backfill around a manhole excavated as part of these groundworks.	Modern
F67	150, 151	Inhumation burial	Culver Street East ground reduction (western end). East/west aligned. Left side of skeleton under limit of excavation. Right side excavated. Bone in good condition. Soft moist dark grey/brown sandy loam	Medieval/post-medieval

F68	-	Unidentified cut feature	Culver Street East ground reduction (western end). North/south aligned cut, probably related to the cemetery and structures within that cemetery. Not excavated. Soft moist medium yellow/grey/brown sandy silty loam with occasional mortar fragments/chunks.	Medieval/post-medieval
F69	-	Burial chamber	Corner of St Nicholas Street/Culver Street East ground reduction area. East/west aligned brick burial chamber. Capped with lime stone slabs to the west but collapsed, broken and infilled with spoil. Cut by two live cables to the west end. F18 grave stone probably associated. Soft red brick, off white mortar. Unexcavated, burial left in situ. Brick size: 23x11x6cm. Vault: 2.52m long, 0.94-1.08m wide.	Post-medieval
F70	152	Unidentified cut feature	Corner of St Nicholas Street/Culver Street East ground reduction area. Possibly a disturbed inhumation burial or part of a service cut/other feature that has cut through a burial. Contained a mixed jumble of human bone. Exposed human remains were collected otherwise the feature was not excavated. Firm moist dark grey/brown/black sandy loam	Post-medieval/modern
F71	153	Inhumation burial	Corner of St Nicholas Street/Culver Street East ground reduction area. East/west aligned. Lower leg and toe bone only, truncated by service trenches to the west.	Medieval/post-medieval
F72	-	Burial chamber	Corner of St Nicholas Street/Culver Street East ground reduction area. East/west aligned brick burial chamber. Very little uncovered with most sealed under the limit of excavation. At least 1.75m long.	Post-medieval
F73	154, 155, 156	Inhumation burial	Corner of St Nicholas Street/Culver Street East ground reduction area. East/west aligned. Cut by service trenches to the east and west. Soft moist dark grey/brown/black sandy loam with charcoal flecks, oyster flecks	Medieval/post-medieval
F74	157, 158	Inhumation burial	Corner of St Nicholas Street/Culver Street East ground reduction area. East/west aligned. Cut by service trench to the west so upper body is missing. Iron coffin plate present in pelvic/rib area. Soft moist medium/dark grey/brown/black sandy loam	Post-medieval
F75	161	Robber trench	Gully pit 6. North/south aligned robber trench seen in north and south sections on west side of trench. Still visible at 2.5m in base of trench. Not excavated. Sections photographed but not drawn as too unstable after burst water main. L57 floor layers are probably associated with the robbed-out wall. Loose, moist, medium/dark grey/brown/black sandy loam with charcoal flecks, oyster flecks, tile flecks	Medieval
F76	-	Robber trench	Deep services, southern end of St Nicholas Street (to south of Gully pit 6). North/south aligned robber trench, seen to a depth of at least 1.4m bcd but not excavated beyond this. Soft moist dark grey/brown loamy with charcoal flecks, oyster flecks, brick flecks	Medieval
F77	-	?Robber trench	Long Wyre Street. Possible north/south aligned robber trench, associated with east/west robber trench F78, not excavated to confirm identification. Sealed by L62, cuts L64. Loose/soft moist medium/dark grey/brown/black loamy with charcoal flecks, oyster flecks, daub flecks, tile flecks.	?Medieval

F78	170	?Robber trench	Long Wyre Street. Possible east/west aligned robber trench, associated with north/south robber trench F77, not excavated to confirm identification. 0.8m wide. Sealed by L62, cuts L64. Loose/soft moist medium/dark grey/brown sandy silt with charcoal flecks, oyster flecks, daub flecks, brick flecks.	?Medieval
F79	-	?Robber trench	Long Wyre Street. Seen in section only. Possible robber trench, north/south aligned, cut by gas pipe on west side. Has frequent crumbly mortar and cbm fragments in lower fill. Sealed by L61, cuts L62, L63 and L64. Could possibly be part of the same robber trench as F77. Loose/soft moist very dark yellow/grey/brown/black sandy silty loam with charcoal flecks, oyster flecks, tile flecks and inclusions of: stone 1%.	?Medieval
F80	168, 169	Metalling	Long Wyre Street. Patches survive between service trenches. Small, medium rounded angular stones with septaria and CBM fragments, thickness unknown 0.2m+. Sealed by L62, not excavated. Firm/hard moist medium green/grey/brown sandy silt with charcoal flecks, oyster flecks, tile flecks and inclusions of: stone 80%	Medieval/ post-medieval
F81	-	Pit	Long Wyre Street. Identified mostly in section, steep sides, depth unknown, not excavated. Mortar and septaria flecks in soil. Sealed by L62, cuts L64. Soft moist medium/dark grey/brown sandy silt with charcoal flecks, oyster flecks and inclusions of: stone 1%	Roman/ post-Roman
F82	-	VOID	-	-
F83	-	Pit	Long Wyre Street. Identified in section, 0.55m wide, steep sides, depth unknown, not excavated. Occasional Roman tile chips in fill. Sealed by L65, cuts L64/L67. Soft moist medium yellow/grey/brown sandy silt with charcoal flecks, oyster flecks and inclusions of: stone 1%	Roman/ post-Roman
F84	-	Pit	Long Wyre Street. Identified in section, 0.35m wide, moderately steep sides, depth unknown, not excavated. Sealed by L65, cuts L67. Firm moist medium/dark yellow/grey/brown sandy silt with charcoal flecks, oyster flecks, daub flecks, tile flecks and inclusions of: stone 1%	Roman/ post-Roman
F85	-	Brick foundation	Far eastern end of Culver Street East ground reduction. Badly truncated patch of very abraded soft red brick/CBM and occasional sub-angular/rounded pebbles set in matrix of soft yellowish-grey mortar. Largest CBM measures 100mm by 150mm. Patch measures 0.6m E/W and 0.26m N/S. Truncated on all sides by modern services. Approx 0.5m below the new road surface. No idea why there is something that looks structural in the middle of the junction – perhaps part on an old drain/manhole/soakaway.	Post-medieval

Appendix 2 Articulated skeletal remains – assessment summary

Context	Finds No	Condition	Completeness (%)	Weight (g)	Frag. Count	Age Group	Age Range	Sex	Stature	Pathologies
F1	1	3	25%	1,167	63	MID ADULT	35-50 YRS	M	176cm (5'9")	• DENTAL ABSCESS LI² • DENTAL CARIES LM², LM³, LPM², LI², RI² • R CLAVICLE LIGAMENT INJURY/FRACTURE
F27	23	1-2	10%	31	4	INFANT	1 YR+	I	-	-
F28	24,25	2-3	20%	886	8	ADULT	18+ YRS	?M	164.5cm (5'4½")	-
F30	34, 34b	1-2	60%	691	190	ADOLESCENT	12-16 YRS	I	-	-
F33	42	1-2	30%	978.1	77	?MID-OLD ADULT	35+ YRS	I	164cm (5'4½")	• EDENTULOUS MAXILLA • LUMBARISATION OF S1
F37	59	2	5%	443	102	CHILD	8-12 YRS	I	-	• DENTAL CARIES Lm¹, Rm¹, Rc¹, Lm₁ • HORIZONTAL ENAMEL HYPOPLASIA
F38	60	2	20%	759.5	317	YOUNG-MID ADULT	20-50 YRS	?M	-	-
F39	81	3-4	45%	2,124.4	124	YOUNG ADULT	20-30 YRS	?M	163cm (5'4")	• ANTE-MORTEM TOOTH LOSS x3 • MINOR HORIZONTAL ENAMEL HYPOPLASIA • BILATERAL CRIBRA ORBITALIA • SPINA BIFIDA S1-S5 • CU STAINING TO R RADIAL HEAD AND L DISTAL ULNA • BILATERAL PARIETAL FORAMEN PRESENT
F40	74	1-2	20%	620.8	146	ADULT	18+ YRS	?F	-	• EDENTULOUS MANDIBLE • CU STAINING TO R RADIUS SHAFT
F41	77	2	40%	1,482.8	136	MID-OLD ADULT	45+ YRS	?F	165cm (5'5")	• DENTAL CARIES x4 • ANTE-MORTEM TOOTH LOSS x4
F42	84	2	20%	738.7	52	YOUNG ADULT	25-35 YRS	F	-	• DENTAL CALCULUS • HORIZONTAL ENAMEL HYPOPLASIA • MINOR PERIODONTAL DISEASE • DENTAL CARIES LM¹ • POSS. THORACIC SPINOUS PROCESS FRACTURE (?CLAY SHOVELLERS) • BIFURCATED SPINOUS PROCESSES (CERVICAL)
F43	68	2	5%	198.7	58	?ADULT	18+ YRS	?F	-	• DENTAL ABSCESS AND CARIES RPM¹ • ANTE-MORTEM TOOTH LOSS RPM²

F45	87	2-3	25%	828.5	38	YOUNG-MID ADULT	27-40 YRS	?F	187cm (6'2")	• ANTE-MORTEM TOOTH LOSS ALL LOWER MOLARS • DENTAL CARIES LPM₁, LPM₂, RPM₂, RC¹ • HYPERCEMENTOSIS UPPER MOLARS AND C¹s • BILATERAL MASTOIDITIS (RIGHT DESTROYED) • UPPER HORIZONTAL ENAMEL HYPOPLASIA • L SUPRAORBITAL FORAMEN PRESENT • R SUPRAORBITAL NOTCH PRESENT • CU STAINING TO L ZYGOMATIC PROCESS AND L MANDIBULAR RAMUS
F52	111	2-3	40%	1,661.3	43	ADULT	18+ YRS	?F	164.5cm (5'4½")	• PARTIAL SACRALISATION L5 • L TIBIAL SHAFT ULCER (?TROPICAL ULCER) • VERTEBRAL OSTEOARTHRITIS • R FEMUR ?OSTEOMYELITIS
F55	115	2-3	30%	918.5	108	MID-OLD ADULT	42+ YRS	F	162cm (5'4")	• HEALED FRACTURE WITH SLIGHT MISALIGNMENT TO LOWER R ULNA SHAFT (?PARRY FRACTURE) • L SEPTAL APERTURE c3.5mm WIDE • STERNAL FORAMEN c5mm WIDE x 9mm LONG
F56	119	2-3	20%	530.5	53	ADOLESCENT	15-20 YRS	?M	175.5cm (5'9")	-
F63	144	2-3	25%	697	25	ADULT	18+ YRS	I	173.69cm (5'8")	-
F64	147	2	5%	90	13	?ADULT	18+ YRS	I	-	-
F65	148	2-3	15%	135.5	19	CHILD	10-12 YRS	I	-	-
F67	150	2	40%	971.5	116	YOUNG-MID ADULT	20-44 YRS	F	165.31cm (5'5")	• DENTAL ABSCESS RI₂ • SEMI-EDENTULOUS MAXILLA AND MANDIBLE • LEFT AUDITORY EXOSTOSIS • LOCALISED RAISED AREA OF LAMELLAR BONE WITH STRIATIONS, 55mm LONG PROXIMAL SHAFT SEEN MEDIALY – TRAUMA OR PERIOSTITIS?
F71	153	1-2	15%	342.5	20	MID-OLD ADULT	35+ YRS	I	-	-
F73	154	2	10%	509.5	16	ADULT	18+ YRS	?F	-	-
F74	157	2-3	45%	1091.2	62	ADULT	18+ YRS	F	160.95cm (5'3½")	-

Appendix 3 Disarticulated skeletal remains – assessment summary

Context	Finds No	Weight (g)	Frag. Count	MNI	Age Group	Age Range	Sex	Stature	Pathologies
F2	9	74	8	1	?ADULT	18+ YRS	INDETERMINATE	-	-
F11	10	66.5	5	1	?ADULT	18+ YRS	INDETERMINATE	-	-
F20	13	2,331	142	1	ADULT	18+ YRS	INDETERMINATE	-	FEMORAL OSTEOMYELITIS
F25	41	62	1	1	INDETERMINATE	INDETERMINATE	INDETERMINATE	-	-
F27	21	136	11	1	?ADULT	18+ YRS	INDETERMINATE	-	-
F27	22	58	12	1	?ADULT	18+ YRS	INDETERMINATE	-	-
F32	36	18	1	1	?ADULT	18+ YRS	INDETERMINATE	-	EARLY VERTEBRAL OSTEOARTHRITIS
F33	43	119.5	5	1	?ADULT	18+ YRS	INDETERMINATE	-	-
F33	47	120	23	1	YOUNG ADULT	18-25 YRS	?MALE	-	SPINA BIFIDA AFFECTING S3-S5
F35	65	13	1	1	INDETERMINATE	INDETERMINATE	INDETERMINATE	-	-
F37	56	47	8	1	ADULT	18+ YRS	INDETERMINATE	-	ANKLYOSIS SPONDYLITIS TO 2x THORACIC VERTEBRAE
F37	62	15	4	1	INDETERMINATE	INDETERMINATE	INDETERMINATE	-	-
F37	66	116	1	1	?ADULT	18+ YRS	INDETERMINATE	-	SABER SHIN DEFORMITY (TIBIA) - ?CONGENITAL SYPHILIS
F38	64	254	5	1	ADULT	18+ YRS	MALE	-	-
F38	63	53.6	41	2	ADOLESCENT ?ADULT	<16 YRS 18+ YRS	INDETERMINATE INDETERMINATE	-	-
F39	82	456.5	38	4	ADULT YOUNG-MID ADULT FOETAL CHILD	18+ YRS 25+ YRS 39-40 WKS 3-6 YRS	FEMALE MALE INDETERMINATE INDETERMINATE	-	-
F40	73	63.7	9	1	ADULT	18+ YRS	INDETERMINATE	-	-
F40	75	813	130	4	ADOL-YOUNG ADULT ADULT ADULT ADOLESCENT	16-23 YRS 18+ YRS 18+ YRS 12-16 YRS	INDETERMINATE ?FEMALE INDETERMINATE INDETERMINATE	-	-
F42	83	309	14	1	?ADULT	18+ YRS	INDETERMINATE	-	-
F52	131	54.5	9	2	ADULT ADOLESCENT	18+ YRS 12-20 YRS	INDETERMINATE INDETERMINATE	-	-
F56	127	262.4	30	2	INFANT-CHILD ?YOUNG ADULT	1-4 YRS 20-35 YRS	INDETERMINATE ?FEMALE	-	-

F63	140	15.9	11	1	?ADULT	18+ YRS	INDETERMINATE	-	-
F63	145	78	5	1	?ADULT	18+ YRS	INDETERMINATE	-	-
F67	151	34.8	6	1	ADULT	18+ YRS	INDETERMINATE	-	-
F70	152	563	92	1	YOUNG-MID ADULT	20-50 YRS	FEMALE	169.98cm (5'7")	DENTAL CARIES M2
F73	155	76	2	1	ADULT	18+ YRS	INDETERMINATE	-	-
F73	156	41.5	15	1	ADULT	18+ YRS	INDETERMINATE	-	-
L2	5	781.8	47	2	ADOLESCENT ADULT	<16 YRS 18+ YRS	INDETERMINATE INDETERMINATE	-	-
L2	6	41,309	1,885	20	FOETUS CHILD CHILD CHILD ADOLESCENT ADOLESCENT YOUNG ADULT YOUNG-MID ADULT YOUNG ADULT ADOL-YOUNG ADULT ADOLESCENT YOUNG ADULT ?ADULT ?ADULT ?ADULT ?ADULT ?ADULT ?ADULT ?ADULT	28 WKS 3-6 YRS 2+ YRS 5-6 YRS 14-17 YRS 12-16 YRS 25-30 YRS 28-44 YRS 25-35 YRS 17-25 YRS 12-18 YRS 20-30 YRS 18+ YRS 18+ YRS 18+ YRS 18+ YRS 18+ YRS 18+ YRS 18+ YRS	INDETERMINATE INDETERMINATE INDETERMINATE INDETERMINATE INDETERMINATE FEMALE FEMALE FEMALE FEMALE INDETERMINATE INDETERMINATE INDETERMINATE FEMALE FEMALE MALE MALE INDETERMINATE INDETERMINATE	-	ADULTS: FEMORAL, FIBULA OSTEOMYELITIS; FIBULA, FEMORAL, TIBIAL PERIOSTITIS; FIBULA ?OSTEOCHONDROMA/OSTEOID OSTEOMA; UNILATERAL SEPTAL APERTURES (5mm, 5.7mm, 8mm); ANTE-MORTEM TOOTH LOSS; DENTAL CARIES; DENTAL CALCULUS; ENAMEL HYPOPLASIA; L PARIETAL FORAMEN PRESENT; MULTIPLE LAMBDROID OSSICLES PRESENT; ECTOCRANIAL WOVEN BONE WITH PITTING (?POROTIC HYPEROSTOSIS); GRADE 3 CRUSH FRACTURE TO UPPER THORACIC VERTEBRA
L2	67	4,229.5	309	6	ADOLESENT INFANT ADULT YOUNG ADULT ADOLESENT ADULT	18-20 YRS 1-2 YRS 28+ YRS 24-30 YRS 12-15 YRS 18+ YRS	INDETERMINATE INDETERMINATE INDETERMINATE INDETERMINATE INDETERMINATE ?FEMALE	163.67cm (5'4½") (ADULT); 167.23cm (5'6") (ADULT)	ADULTS: ANTE-MORTEM TOOTH LOSS; ENAMEL HYPOPLASIA; HYPERCEMENTOSIS TO MULTIPLE TEETH IN ONE INDIVIDUAL
L2	88	77	24	1	ADULT	18+ YRS	?FEMALE	-	-
L2	91	1,191	100	4	ADOLESENT ADULT ADULT ADULT	<16 YRS 18+ YRS 18+ YRS 18+ YRS	INDETERMINATE MALE MALE FEMALE	159.49cm (5'2½") (ADULT)	ADOLESCENT: POST-MORTEM CUT MARKS TO FEMUR
L2	93	1,634	145	5	CHILD-ADOLESCENT ADULT ADULT	<16 YRS 18+ YRS 18+ YRS	INDETERMINATE INDETERMINATE INDETERMINATE	145.88cm (4'9") (ADULT)	ADULT: DENTAL CARIES; POROTIC HYPEROSTOSIS

					ADULT ADULT	18+ YRS 18+ YRS	?MALE ?FEMALE		
L7/L8	17	1,272	68	2	INFANT ADULT	1-1.5 YRS 18+ YRS	INDETERMINATE ?FEMALE	-	ADULT: NON-SPECIFIC INFECTION (FEMUR); ?MASTOIDITIS
L7	18	86	1	1	INDETERMINATE	INDETERMINATE	INDETERMINATE	-	-
L8	38	402	16	1	?ADULT	18+ YRS	INDETERMINATE	-	-
L8	86	1,263.8	93	3	ADOLESCENT ADULT ADULT	12-14 YRS 18+ YRS 18+ YRS	INDETERMINATE INDETERMINATE ?M	-	ADOLESCENT: LATERAL FEMORAL BOWING (?RICKETS) ADULTS: POROTIC HYPEROSTOSIS; ENDOCRANIAL FIBRE BONE LESION - ?SIGNS OF HEALING; ACETABULAR OSTEOARTHRITIS
L10	19	32	1	1	INDETERMINATE	INDETERMINATE	INDETERMINATE	-	-
L13	70	33,406.5	1,677	19	ADOLESCENT ADOLESCENT CHILD- ADOLESCENT INFANT CHILD CHILD ADULT ADULT ADULT ADULT ADULT ADULT ADO-Y ADULT ADULT ADULT MID ADULT INFANT ADOLESCENT ADULT	16-20 YRS 13-17 YRS 10-14 YRS 6MO-2 YRS 4.5 YRS 8-12 YRS 35-50 YRS 18+ YRS 18+ YRS 18+ YRS 18+ YRS 18+ YRS 18-22 YRS 18+ YRS 18+ YRS 35-50 YRS 1.5+ YRS 16-19 YRS 18+ YRS	INDETERMINATE INDETERMINATE INDETERMINATE INDETERMINATE INDETERMINATE MALE MALE MALE FEMALE FEMALE FEMALE ?MALE FEMALE ?MALE FEMALE ?MALE FEMALE INDETERMINATE ?MALE FEMALE	169.85cm (5'7") (ADULT); 173.95cm (5'8½") (ADULT); 158.36cm (5'2") (ADULT); 162.07cm (5'2") (ADULT) 170.23cm (5'7") (ADULT) 172.68cm (5'8") (ADULT) 148.97cm (4'11") (ADULT) 158.58cm (5'2") (ADULT)	UNKNOWN: LATERAL RADIAL BOWING (?RADIUS) ADULTS: CONGENITAL HIP DYSPLASIA; FIBULA OSTEOMYELITIS; NON-SPECIFIC INFECTION TO HUMERUS; FIBULA AND FEMUR; DENTAL CARIES; M3 CONGENITALLY ABSENT; SEMI- EDENTULOUS MAXILLA (MAX 4 TEETH LEFT); ANTE-MORTEM TOOTH LOSS; ?PERI-MORTEM SHARP TRAUMA TO ULNA; TIBIAL HEAD EBURNATION; POROTIC HYPEROSTOSIS; ACETABULAR OSTEOARTHRITIS; VERTEBRAL OSTEOARTHRITIS; WELL-HEALED RIB FRACTURE; METOPIC SUTURE PRESENT CHILD-ADOLESCENT: IMPACTED UPPER CANINE (ERUPTING MESIALLY)
L13	85	6,257	329	9	CHILD ADOLESCENT YOUNG ADULT ?ADULT ?ADULT ?ADULT ?ADULT ?ADULT ?ADULT	5-11 YRS 12-14 YRS 20-35 YRS 18+ YRS 18+ YRS 18+ YRS 18+ YRS 18+ YRS 18+ YRS	INDETERMINATE INDETERMINATE INDETERMINATE FEMALE FEMALE FEMALE MALE INDETERMINATE INDETERMINATE	159.93cm (5'3") (ADULT)	ADULTS: HETEROTOPIC OSSIFICATION PROXIMAL FEMORAL SHAFT; COMPLETE ANKYLOSIS TO 1ST METATARSAL AND MULTIPLE TARSALS WITH ACTIVE ?OSTEOMYELITIS; NON-SPECIFIC INFECTION TO TIBIAS, FEMUR, ULNA, FIBULA; HEALED CRIBRA ORBITALIA; ANTE-MORTEM TOOTH LOSS; FRACTURE TO LOWER THORACIC/UPPER LUMBAR VERT (GRADE 4 ANTERIOR COMPRESSION) WITH SIGNIFICANT OSTEOPHYTES TO BORDER; VERTEBRAL OSTEOARTHRITIS; DENTAL CALCULUS;

									?TRAUMA-RELATED INFECTION TO DISTAL RADIUS (GREY WOVEN BONE, MINOR PITTING, EXTRA GROWTH TO STYLOID PROCESS AND ARTICULAR SURFACE FOR CARPALS); ACETABULAR OSTEOARTHRITIS
L13	109	1,043	36	1	ADULT	18+ YRS	MALE	-	TRAUMATIC DIAPHYSEAL TIBIOFIBULAR SYNSTOSIS
L13	167	841	69	2	ADOL-YOUNG ADULT ADULT	18-22 YRS 18+ YRS	INDETERMINATE ?MALE	156.89cm (5'2") (ADULT)	ADO-Y ADULT: MINOR HORIZONTAL ENAMEL HYPOPLASIA; POSSIBLE BILATERAL MASTOIDITIS
L14	89	3,361	123	4	ADOLESCENT MID-OLD ADULT ADULT ADULT	12-17 YRS 35+ YRS 18+ YRS 18+ YRS	INDETERMINATE FEMALE MALE FEMALE	-	ADULTS: ANTE-MORTEM TOOTH LOSS; SHALLOW ENDOCRANIAL CAPILLARY LESIONS (?INFECTION – TB/MENINGITIS OR ?CHRONIC DEFICIENCY)
L35	113	2,593.5	106	4	ADULT ADULT ADULT ADOLESCENT	18+ YRS 18+ YRS 18+ YRS 13-16 YRS	?MALE INDETERMINATE INDETERMINATE INDETERMINATE	-	ADULTS: TIBIAL ?PERIOSTITIS; DENTAL CALCULUS
L35	114	1,135	51	1	YOUNG-MID ADULT	20-49 YRS	MALE	-	TRAUMA AND/OR ARTHRITIS TO STERNAL END OF 1 ST RIB; VERTEBRAL ANKYLOSIS SPONDYLITIS; DISH
L60	163	1,333	78	3	INFANT ADOLESCENT ADULT	0-3 YRS 12-14 YRS 18+ YRS	INDETERMINATE INDETERMINATE MALE	-	-
U/S	90	2,421.7	93	5	ADOLESCENT ADULT ADULT ADULT INFANT	14-19 YRS 18+ YRS 18+ YRS 18+ YRS 1.5 YRS	?MALE MALE FEMALE FEMALE INDETERMINATE	-	ADULTS: SEPTAL APERTURE – (8.6mm WIDE)
U/S	110	7,692	418	5	CHILD YOUNG ADULT CHILD ?OLD ADULT INFANT	10-12 YRS 20-40 YRS 5-7 YRS 50 + YRS 1.5-3 YRS	INDETERMINATE FEMALE INDETERMINATE MALE INDETERMINATE	171.58cm (5'8") (ADULT)	ADULTS: LATERAL FEMORAL BOWING (?RICKETS); CONGENITAL HIP DYSPLASIA (SEEN IN FEMORAL HEAD) WITH ARTHRITIC CHANGES; ?MASTOIDITIS, ?UNKNOWN POST-MORTEM MARKS (?TOOL) TO MEDIAL DISTAL EPICONDYLE OF FEMUR, APICAL BONE PRESENT; LEFT LAMBDROID OSSICLE PRESENT; BILATERAL ASTOIONIC BONE PRESENT (RIGHT IS LARGER); L SEPTAL APERTURE (4.5mm WIDE)
U/S	137	878.7	82	1	?ADULT	18+ YRS	INDETERMINATE	-	-
U/S	142	349	10	1	?ADULT	18+ YRS	INDETERMINATE	-	-

Appendix 4 Raw data for all articulated skeletal remains**Vault scores (Buikstra & Ubelaker 1994)**

Context	Finds No		Midlambdoid	Lambda	Obelion	Anterior Sagittal	Bregma	Midcoronal	Pterion	Sphenofrontal	Inferior Sphenofrontal	Superior Sphenofrontal
F1	1		0	1	1	2	1	1	1	1	3	1
F39	81		1	0	1	0	0	1	1	1	1	0
F42	84		0	1	1	1	1	-	-	-	-	-
F45	87		0	1	2	1	1	1	1	1	2	0
F67	150		1	1	0	0	0	0	0	0	1	0

Dental attrition scores (Lovejoy 1985; Brothwell 1981)

Context	Finds No		Maxillary (Lovejoy)	Mandibular (Lovejoy)	Molars (Brothwell)
F1	1		-	G	25-35 yrs
F39	81		E	D	17-25 yrs
F41	77		H	I	45+ yrs
F42	84		-	F	25-35 yrs
F45	87		-	F	-

Cranial morphology (Buikstra & Ubelaker 1994)

Context	Finds No		Nuchal Crest	Mastoid Process	Supra-Orbital Margin	Supra-Orbital Ridge/Glabella	Mental Eminence
F1	1		4	3	4	4	2
F39	81		1	-	2	2	-

F40	74	-	-	-	-	2
F41	77	-	2	-	-	4
F42	84	2	2	-	-	2
F43	68	-	2	-	-	-
F45	87	1	4	2	3	3
F67	150	-	1	2	1	2

Pelvic morphology (Buikstra & Ubelaker 1994)

Context	Finds No	Ventral Arc	Subpubic Concavity	Medial Aspect	Greater Sciatic Notch	Preauricular Sulcus
F38	60	-	-	-	4	-
F3	81	3	3	3	4	5
F41	77	-	-	-	1	-
F52	111	-	-	-	2	-
F55	115	1	-	-	2	2
F56	119	-	-	-	5	-
F67	150	-	-	-	2	-
F74	157	-	-	-	2	-

Humeral constriction (Falys et al 2005)

Context	Finds No	Left	Right
F1	1	1	2
F28	24, 25	2	-
F33	42	-	4
F39	81	-	2
F41	77	-	4
F45	87	-	4
F55	115	4	-
F56	119	-	3
F67	150	-	5
F74	157	-	4

Head diameters (mm) (Milner & Bolsden 2012)

Context	Finds No		Femur		Humerus	
F1	1		-	-	53.70	52.70
F33	42		-	46.80	-	-
F38	60		-	48.01	-	-
F40	74		45.98	48.50	43.30	41.85
F41	77		47.25	49.87	42.16	-
F42	84		-	-	43.05	-
F45	87		-	-	-	50.78
F52	111		43.68	-	-	-
F55	115		-	41.90	41.63	-
F67	150		-	48.30	-	41.17
F73	154		-	-	-	39.50
F74	157		40.60	43.50	-	-

Long bone measurements (cm)

Context	Finds No		Humerus		Radius		Ulna		Femur		Tibia		Fibula	
F1	1		34.2	34.3	-	-	-	-	-	-	-	-	-	-
F27	23		-	-	-	-	-	-	13+	13+	10+	10+	-	-
F28	24, 25		29.7	-	22.7	-	25.3	-	43	-	-	-	31.5	-
F33	42		-	-	-	-	-	22.7	-	45.1	-	-	-	-
F39	81		-	-	22.5	-	23.4	-	-	-	-	-	-	-
F41	77		-	-	-	-	-	-	44.1	-	-	-	-	-
F45	87		-	38.5	-	-	-	-	-	-	-	-	-	-
F52	111		-	-	-	-	-	-	44.3	43.5	35.4	-	34.7	35.4
F55	115		30	-	-	-	23.5	-	-	-	-	-	-	-
F56	119		-	-	-	27	-	24.6	-	-	-	-	-	-
F63	144		-	-	-	-	-	-	-	-	38.7	38	37.5	-
F65	148		-	-	-	-	22.8	-	-	-	-	-	-	-
F67	150		-	31	-	22.2	-	24.1	-	-	-	37	-	-
F74	157		-	-	-	-	-	-	40.6	43.7	34.3	34.4	-	-

Appendix 5a Weight (g) and fragment count for the articulated human bone

Context	Find No		Skull		Mandible		Loose Teeth		Hyoid		C Vert		T Vert		L Vert		Misc Vert		Clavicle, L		Clavicle, R		Scapula, L		Scapula, R	
F1	1		438	2	66	1	1	1			30	6	128	13					18	1	18	1	38	5	44	1
F27	23																									
F28	24, 25																									
F30	34, 34b		5	1									26	15	9	2	11	18	3.5	1			9	1		
F33	42		244	27	22	1									36	3	2.6	9	5	1	9	1	4	1	15	1
F37	59		242	55	41	2	20	23												3	1					
F38	60																132	116							11	3
F39	81		538	19	62	7	7.88	9			11.25	2	188	13	134	5			14	1	24	1	14	1	48	2
F40	74		202	62	20	1	1.5	2															7	1	14	2
F41	77		386	63	32	5	12.81	13			19.34	6														
F42	84		344	10	56	1	6	6	1.5	1	55.82	7	60.41	5			1	1	14	1	18	1	28	1	36	2
F43	68		192	56																						
F45	87		538	14	42	1	13.8	12	1.03	4	29.7	4									12	1			44	1
F52	111												47	9	28	2							12	1		
F55	115										20	5	100	21	90	5	3	1	4	1	10	1	29	8	29	2
F56	119																				16	1			37	10
F63	144																									
F63	147																									
F65	148		16	1							4	1														
F67	150		347	56	30	3	1	1			2.7	1									6	1			20	2
F71	153																									
F73	154																				10	1			5.5	1
F74	157														1	11										

Context	Finds No		Ribs, L		Ribs, R		Unsid Ribs		Sternum		Humerus, L		Humerus, R		Radius, L		Radius, R		Ulna, L		Ulna, R		Carpals, L		Carpals, R	
F1	1		42	9	64	12	26	8			126	1	112	1			16	1								
F27	23																									
F28	24, 25										154	1			52	1			62	1						
F30	34, 34b		9	3	13	6	38	24			28	1	15.5	2	12	1	10	2	10	1	13.5	1				
F33	42						6.5	8	5	4			162	2			36	1			34	1				
F37	59										11	2	13	1					6	1						
F38	60						86	55					80	1							34	1	4	4	2.5	3
F39	81		108	16	126	15	16.8	6	24	1			110	1	35	3	24.5	1	34	2	40.5	1	7	4		
F40	74										28	9	47	2	12	3	24	1	17	1	22.5	1				
F41	77						3.5	2			62	4	64	2	24	1			22	1	16	1				
F42	84				18	4	16	5			74	2														
F43	68						6.7	2																		
F45	87												148	1												
F52	111								1.5	5	72	1														
F55	115		64	19	58	14	5	5	7	2	64	1	60	5	12	2			14	1	28	1			0.5	1
F56	119				67	28			2	1			101.5	1			43	1			57	2			1	1
F63	144																									
F63	147												66	12							24	1				
F65	148												58	3			13	3			29	2			0.5	1
F67	150				13	11							62	1			24	1			22	1			1	1
F71	153																									
F73	154												73	1			26.7	1			27.3	2				
F74	157										3.8	1	44	1	10.5	2	14	1	9	1	14	1				

Context	Finds No		Metacarpals, L		Metacarpals, R		H Phalanges, L		H Phalanges, R		Sacrum		Pelvis, L		Pelvis, R		Misc Pelvis		Femur, L		Femur, R		Patella, L		Patella, R	
F1	1																									
F27	23																		8	1	10	1				
F28	24, 25																		372	1						
F30	34, 34b		1.5	2	10	2					38	3	44	3	40	1			104	5	77	3	3	1	3	1
F33	42		3	1	11	5	2	1	4	5	21	1			31	2					316	1			9	1
F37	59																		29	6	40	1				
F38	60		13	5	13	4	12	8	15	11	7	3	8	2	43	4	88	67			154	1				
F39	81		10	3			7.5	5	4	3	116	1	210	1	210	1										
F40	74		7	2	9	3	7	3	5.5	4											84	3				
F41	77		3.18	1	3.38	1	2.42	1	2.38	1	1.7	1	80	2					312	2	182	2				
F42	84		2	1					2	1																
F43	68																									
F45	87																									
F52	111										40	2	63	1	67	1			354	1	362	1				
F55	115				13	5			2	2	76	1	108	4	122	1										
F56	119										60	6			146	2										
F63	144																		110	1	56	1				
F63	147																									
F65	148				7.5	5			1.5	2											6	1				
F67	150				12	4			5.7	3					48.5	10					186	4				
F71	153																									
F73	154																		76	7	255	1			8	1
F74	157		7.5	4	9	4			3	2			56	1	82	1			202	1	198	1				

Context	Finds No		Tibia, L		Tibia, R		Fibula, L		Fibula, R		Tarsals, L		Tarsals, R		Metatarsals, L		Metatarsals, R		F Phalanges, L		F Phalanges, R		Misc Frag		TOTAL	
F1	1																								1,167.0	63
F27	23		5.5	1	7.5	1																			31.0	4
F28	24, 25		182	2			64	2																	886.0	8
F30	34, 34b		37	18	52	3	13	5	11	1	7	6	10	6	4	4	3	3					21	44	691.0	190
F33	42																								978.1	77
F37	59				34	1																4	9		443.0	102
F38	60																					57	29		759.5	317
F39	81																								2,124.4	124
F40	74		55	26			15	4			27	6			15	5			1.3	5					620.8	146
F41	77		78	2	62	1	24	1									7.9	1					82	22	1,482.8	136
F42	84																5	1			1	2			738.7	52
F43	68																								198.7	58
F45	87																								828.5	38
F52	111		226	1	168	3	42	1	44	1	52	3	45	2	28	5	4	1					5.8	2	1,661.3	43
F55	115																								918.5	108
F56	119																								530.5	53
F63	144		182	1	176	1	29	1	33	5	34	3	53	6	4	1	20	5							697.0	25
F63	147																								90.0	13
F65	148																								135.5	19
F67	150				114	1			17.6	3			42	6			16.5	5			0.5	1			971.5	116
F71	153				140	4			36	2	76	6	57.5	2	24	4	9	2							342.5	20
F73	154						28	1																	509.5	16
F74	157		134	1	135	1	17	2	18	1	50	7	50	7	15.5	5	18.4	5	0.5	1					1,092.2	62
TOTAL																									17,898.1	1,790

Appendix 5b Weight (g) and fragment count for the disarticulated human bone

Context	Finds No	Skull		Mandible		Loose Teeth		Hyoid	C Vert		T Vert	L Vert	Misc Vert		Clavicle		Scapula		Ribs		Sternum	Humerus		Radius		Ulna	
F2	9																									27	2
F11	10																					42	1				
F20	13		472	31	17	1							4	1	14	1	6	1	9	6		209	10	86	5	71	5
F25	41																										
F27	21		6	1																							
F27	22		52	9															4	2							
F32	36								18	1																	
F33	43		4	1																							
F33	47																										
F35	65																										
F37	56		1	1			1	1		34	2																
F37	62																										
F37	66																										
F38	64																										
F38	63											10	4						4	2						1.5	1
F39	82		138	8			2.5	4		8	1								22	9		44	1	14	1		
F40	73		2.2	1	52	2	2.5	3											7	3							
F40	75		25.5	6			1	2		4	2			16	1	10	2		15	5		85	4	23	4	32	2
F42	83		309	14																							
F52	131		12	2																				11	1		
F56	127		15	1													27	3	15	6		21	2	7	2		
F63	140																										
F63	145																										
F67	151																		1.5	1		19	1	5.8	1		
F70	152		272	59			6.5	4																		58	1
F73	155																							35	1	41	1
F73	156																										

Carpals		Metacarpals		H Phalanges		Sacrum		Pelvis		Femur		Patella		Tibia		Fibula		Tarsals		Metatarsals		F Phalanges		Misc Frag		TOTAL	
				2	1					22	1													23	4	74.0	8
														16	1					8	1			0.5	2	66.5	5
		15	3	3	1	18	2	107.5	9	809	33			393	4	16.5	2	3	1					78	26	2,331.0	142
														62	1											62.0	1
										130	10															136.0	11
																								2	1	58.0	12
																										18.0	1
								35	2					78	1					2.5	1					119.5	5
						57	9			46	1			12	1									5	12	120.0	23
																13	1									13.0	1
		3	1																	7	2	1	1			47.0	8
														15	4											15.0	4
														116	1											116.0	1
										222	3							32	2							254.0	5
		3.5	3	1.6	1													13	3	7	2			13	25	53.6	41
						98	1	104	3	3	1							4	1	6	1			13	7	456.5	38
																										63.7	9
6	4	9	4	1	2			98	11	376	11			10.5	1			5	1					96	68	813.0	130
																										309.0	14
		8.5	2	3	1			8	1											12	2					54.5	9
		7	2	0.4	1			114	8					47	2									9	3	262.4	30
														3	1			5.5	2	3.4	1			4	7	15.9	11
														78	5											78.0	5
		7	2																	1.5	1					34.8	6
		5	1	5.5	2			94	1	93	2			5	1	4	1							20	20	563.0	92
																										76.0	2
																								41.5	15	41.5	15

Context	Finds No	Skull		Mandible		Loose Teeth		Hyoid		C Vert		T Vert		L Vert		Misc Vert		Clavicle		Scapula		Ribs		Sternum		Humerus		Radius	
L2	5	28.5	2															28	4	2.7	1	5	1			145	4	30	1
L2	6	4369	447	358	15	5	5			281	28	5	1	34	3	36	2	136	23	117	10	271	74	22	1	2560	77	698	45
L2	67	676	59	18	1	7	7	0.5	1	12	7	3	1	3.5	1	23	2	43	4	15	2	32	15			591	18	92	5
L2	88																									42	2		
L2	91	38	3																			4	1			14	1	33	2
L2	93	185	15	22	1	4	2			14	3							13	2	3	1	185	5			60	2	87	4
L7/L8	17	336	19																			8	2			188	3	7	2
L7	18																												
L8	38	20	4																							26	1	38	2
L8	86	434	45							5	1	4	2							7	1	0.8	1			58	3	25	2
L10	19																									32	1		
L13	70	8947	538	399	24	35	35			64	6	60.5	13	246	27	262	15	79	10	217	14	254	60			2624	75	646	31
L13	85	644	67	40	2	1	1			4	4			8	1	84	5	35	4	31	2	34	6			521	15	168	10
L13	109																			9	1					14	1	18	1
L13	167	295	35	52	2	6	7					30	5									12	4						
L14	89	146	9															21	2	28	1	21	5			385	8	91	3
L35	113	690	29	14	1	1.5	1													57	3	22	8			249	6	36	3
L35	114	330	5							93	7							28	2	56	3	67	17	14	1	225	3	43	1
L60	163	50	5	10	1					14	1			22	1							16	3					23	1
U/S	90	47	5	2.7	1							3.5	1					37	3	14	3	29	12			142	3	24	1
U/S	110	1998	115	23	3	6	6			3	1	10	1	153	14	7	1	36	3			201	36			791	21	114	9
U/S	137	128	14			2	1					6	1									2.7	3			25	1	36	3
U/S	142																											11	1

Ulna		Carpals		Metacarpals		H Phalanges		Sacrum		Pelvis		Femur		Patella		Tibia		Fibula		Tarsals		Metatarsals		F Phalanges		Misc Frag		TOTAL		
25	2			13	3	1	1					323	8			92	2	30	3			7	1			51.6	14	781.8	47	
708	43			76	22	27	11	123	7	1586	82	19666	320			8413	151	250	18	238	12	182	43	7	2	1141	443	41,309.0	1,885	
84	5			8	3	16	5			352	17	1500	32	21	2	412	12	13.5	3			41	13	11	4	255	90	4,229.5	309	
																										35	22	77.0	24	
128	8			20	12	4	3	26	1	86	5	664	18	6	1	52	2	10	1	28	6	18	3			60	33	1,191.0	100	
180	8									34	1	234	6			285	8	35	3	116	5	34	7	2	1	141	71	1,634.0	145	
69	2									41	3	172	11			425	9		1			4	1			22	15	1,272.0	68	
										86	1																		86.0	1
16	1									112	3	54	2			122	1					14	2						402.0	16
24	2			5	1					200	3	446	15			29	1	14	1							12	15	1,263.8	93	
																													32.0	1
671	33			96.5	30	17	12	232.5	6	1812	59	11677	171			3431.5	65	411	30	259	12	69	18	16.5	5	880	388	33,406.5	1,677	
266	13			37	12	11	8	17	2	139	13	2929	42	13	1	805	18	118	7	190	15	50	11	2	2	110	68	6,257.0	329	
38	3					2	1			102	1	424	6			374	11	20	2	18	1					24	8	1,043.0	36	
												79	1			292	3	19	2	30	3	17	6			9	1	841.0	69	
54	4					3	1			480	12	1246	13			784	10					4	1			98	54	3,361.0	123	
41	2					6	3			350	7	420	6			529	10	28	1	22	1					128	25	2,593.5	106	
48	1									9	1	176	2			8	1									38	7	1,135.0	51	
22	1			4	1					56	2	434	9			350	4	54	3	129	11	71	18	1	1	77	16	1,333.0	78	
92	2			2.5	1					208	5	1160	18			521	7	89	5							50	26	2,421.7	93	
141	8	2	1	22	7	19	9			249	21	2750	48			953	17	11	1	15	1	5	1			183	94	7,692.0	418	
38	3			5	2			24	2	3	1	379	8			72	2			11	1					147	40	878.7	82	
												253	5			70	1									15	3	349.0	10	
																							TOTAL				119,841.4	6,390		

Appendix 6 Pottery list

Context	Find no.	NR	GR.	MSW	Discard	Rim	Handle	Base	Stamp	Reading	Interpret.	Stamp. Ref	Graf Pre-F	Graf Post-F	Location	Visible (Y/N)	Reading	Wmd	Sooting (ext.)	Burning	Overfired	Other deposit	Mortar encrustation	Gritted	Fabric Group	Typology	Function	EVE	Diam.	Comments	Start Date	End Date		
F1	3	1	38	38.0	X																				F40							1500	1800/1900	
F1	3	1	6	6.0	X																				F50	PRESS-MOULDED DISH	DISH				PRESS-MOULDED DISH WITH COMBED DEC	1650	1800	
F1	3	1	23	23.0	X	0	0	1																	F42							1500	1700	
F1	3	1	5	5.0	X																				F47							1725	1775/1800	
F1	3	1	8	8.0	X																				F50	PRESS-MOULDED DISH	DISH				PRESS-MOULDED DISH WITH COMBED DEC	1650	1800	
F1	3	1	8	8.0	X																				F40							1500	1800/1900	
F1	3	1	14	14.0																					GX							43	425	
F1	3	1	3	3.0		1	0	0																	GX	?	LID		0.07	140		43	425	
F2	9	1	12	12.0	X																				WA							BURN XX, BB COPY	43	425
F2	9	1	23	23.0	X	1	0	0																	F48D	PLATE	PLATE		0.08	260		1800	2000	
F25	41	1	143	143.0	X																				BAET	DR20	AMPHORAE					20/30	270	
F25	41	1	194	194.0		0	0	1																	TD							43	160/200	
F25	41	1	17	17.0		0	0	1																	WA							43	425	
F25	41	1	6	6.0																					GB							110/125	300	
F25	41	2	33	16.5		0	0	2											X						F13							1000	1225	
F25	41	1	45	45.0		0	0	1																	EA						?	225	425	
F25	95	1	6	6.0	X																				GX/47							BUFF CORE	43	425
F25	103	1	16	16.0	X																X				GX							43	425	
F26	20	6	22	3.7	X																				GX							43	425	
F26	20	1	20	20.0	X	1	0	0																	GX	CAM 268	JAR		0.08	110		125/150	280/320	
F26	20	1	6	6.0	X																				CH							225/250	425	
F26	20	1	56	56.0	X	1	0	0																	GB	CAM 40B	DISH		0.13	210		120	275	
F27	21	1	9	9.0	X	1	0	0																	F40	SMALL HANDLED JAR/CHAMBERPOT	JAR/CHAMBERPOT		0.05	160		1650	1750	

Context	Find no.	NR	GR.	MSW	Discard	Rim	Handle	Base	Stamp	Reading	Interpret.	Stamp. Ref	Graf Pre-F	Graf Post-F	Location	Visible (Y/N)	Reading	Wmd	Sooting (ext.)	Burning	Overfired	Other deposit	Mortar encrustation	Gritted	Fabric Group	Typology	Function	EVE	Diam.	Comments	Start Date	End Date
F28	26	1	14	14.0																				HD							43	425
F28	26	6	61	10.2	X	0	0	2																GX							43	425
F28	26	1	25	25.0		1	0	0											X					GX	CAM 268	JAR		0.14	150		125/150	280/320
F28	26	1	21	21.0		1	0	0																KX	CAM 37B/38B	BOWL		0.04	220		180	275
F28	26	1	19	19.0		1	0	0											X					KX	CAM 305B	BOWL		0.09	180		180	275
F28	26	1	11	11.0		0	0	1															X	TG							250/275	400
F31	29	2	40	20.0		2	0	0																GA	CAM 39A	DISH		0.07	320		140	400
F31	29	1	24	24.0		0	0	1																GX							43	425
F31	29	2	7	3.5																				F13							1000	1225
F31	29	1	6	6.0																				HD							43	425
F31	37	1	19	19.0		1	0	0																GB	CAM 37B/38B	BOWL		0.08	230		180	275
F31	37	1	36	36.0		1	0	0																F12A	COOKING POT A2	COOKING POT		0.08	240		1000	1225
F33	43	1	2	2.0	X																			F48D							1800	2000
F33	43	1	17	17.0		0	0	1																F40A							1600	1800
F33	43	3	23	7.7	X																			F40							1500	1800/1900
F33	43	1	9	9.0																				F40A							1600	1800
F33	43	1	3	3.0																				F42							1500	1700
F33	43	1	5	5.0	X																			F21							1200	1550
F33	43	1	13	13.0		1	0	0																GB	CAM 37B/38B	BOWL		0.03	?		180	275
F33	43	4	32	8.0									X			Y	A							F45F							1600	1800
F33	43	1	3	3.0																				F45G							1675	1900
F33	43	1	5	5.0																				EA							225/250	425
F33	43	1	3	3.0	X																			F40							1500	1800/1900
F33	43	1	7	7.0	X																			F40							1500	1800/1900
F33	43	1	39	39.0		1	0	0																F40	DISH	DISH		0.03	?		1600	1725/1750

Context	Find no.	NR	GR.	MSW	Discard	Rim	Handle	Base	Stamp	Reading	Interpret.	Stamp. Ref	Graf Pre-F	Graf Post-F	Location	Visible (Y/N)	Reading	Wmd	Sooting (ext.)	Burning	Overfired	Other deposit	Mortar encrustation	Gritted	Fabric Group	Typology	Function	EVE	Diam.	Comments	Start Date	End Date
F33	43	1	26	26.0		1	0	0																F45F	TANKARD	TANKARD	0.10	120			1600	1800
F33	48	1	24	24.0																				GX							43	425
F34	39	1	22	22.0		0	0	1																GB							110/125	300
F34	39	1	13	13.0		0	0	1																GX							43	425
F35	50	1	6	6.0	X																			F40							1500	1800/1900
F35	50	4	42	10.5		2	0	0																F13	COOKING POT A4B	COOKING POT	0.03	?			1025/1050	1200/1225
F35	50																							F13	COOKING POT C1	COOKING POT	0.05	210			1025/1050	1225
F35	50	1	21	21.0		1	0	0																GB	CAM 37B/38B	BOWL	0.08	220			180	275
F35	50	2	6	3.0																				GA							110/125	400
F35	65	1	10	10.0	X	0	1	0																DJ					FWS		43	425
F35	65	1	8	8.0	X																			F13							1000	1225
F35	65	1	45	45.0	X														X					F13T							1125	1225
F35	65	2	20	10.0		2	0	0																F12C	COOKING POT A4b	COOKING POT	0.09	200	SPARSE SHELL SURFACE, RARE IN CORE, GREY, OF, NR F20		1000	1225
F36	45	1	30	30.0		0	0	1																F13T					SPARSE SHELL NR F20		1100	1225
F37	56	1	5	5.0	X																			F40					BL GLAZE		1500	1800/1900
F37	56	1	8	8.0		0	0	1																GB							110/125	300
F37	56	1	10	10.0																				F40A							1600	1800
F37	56	6	65	10.8	X																			F40							1500	1800/1900
F37	56	3	32	10.7																				F50	PRESS-MOULDED DISH	DISH					1650	1800
F37	56	1	8	8.0																				F50		PORRINGER			SLIP BANDS/BLOBS		1650	1800
F37	56	1	43	43.0		0	0	1																F45M							1800	2000
F37	56	1	3	3.0		1	0	0																GAB TN1	CAM 16	PLATTER	0.05	170			43	85
F38	57	1	29	29.0		0	0	1																GX	?	BEAKER					43	425
F38	57	1	11	11.0		1	0	0																BSW 3	CAM 307	BOWL/JAR	0.05	200	?		180/220	400

Context	Find no.	NR	GR.	MSW	Discard	Rim	Handle	Base	Stamp	Reading	Interpret.	Stamp. Ref	Graf Pre-F	Graf Post-F	Location	Visible (Y/N)	Reading	Wmd	Sooting (ext.)	Burning	Overfired	Other deposit	Mortar encrustation	Gritted	Fabric Group	Typology	Function	EVE	Diam.	Comments	Start Date	End Date
F38	57	1	15	15.0		0	1	0																F45B					?		1300	1600
F38	57	1	4	4.0	X																			NARB	?	AMPHORAE					-30	300
F38	57	2	13	6.5	X																			F48D							1800	2000
F38	57	3	8	2.7		0	0	3																F46							1550	1800
F38	57	1	7	7.0		0	0	1																F50	PRESS-MOULDED DISH	DISH					1650	1800
F38	57	7	138	19.7	X	0	0	1																F40							1500	1800/1900
F38	57	1	46	46.0		1	0	0																F40	SMALL-STRAIGHT SIDED BOWL	BOWL		0.17	160		1600	1650
F38	57	5	36	7.2	X																			GX							43	425
F39	82	1	5	5.0	X																			BASG	DRAG 27	CUP					43	110
F39	82	1	3	3.0																				F21							1200	1550
F45	94	1	124	124.0		1	0	0											X					F12B	COOKING POT A4B	COOKING POT		0.09	320	ODD NO SHLD, STRAIGHT SIDED MORE LARGE BOWL BUT HEAVY S EXT	1075	1200
F56	119	1	32	32.0		0	1	0																F45D	JUG	JUG					1500	1700
F63	140	1	9	9.0	X																			F48D							1800	2000
F70	152	1	4	4.0	X																			F45F							1600	1800
F70	152	1	15	15.0	X																			F40							1500	1800/1900
F70	152	1	30	30.0		1	0	0																F40	DISH	DISH		0.05	320	OR GLAZE INT	1500	1800/1900
F70	152	1	7	7.0																				F21							1200	1550
F75	161	1	38	38.0																				GX							43	425
F78	170	1	3	3.0																				MP							275	425
F78	170	2	47	23.5		0	0	1																GX							43	425
F80	168	1	5	5.0																				GX							43	425
L2	6	1	41	41.0		1	0	0													X			F20	JUG	JUG		0.20	150		1150	1375/1400
L2	6	1	5	5.0	X																			F45M							1800	2000

Context	Find no.	NR	GR.	MSW	Discard	Rim	Handle	Base	Stamp	Reading	Interpret.	Stamp. Ref	Graf Pre-F	Graf Post-F	Location	Visible (Y/N)	Reading	Wmd	Sooting (ext.)	Burning	Overfired	Other deposit	Mortar encrustation	Gritted	Fabric Group	Typology	Function	EVE	Diam.	Comments	Start Date	End Date
L2	6	1	11	11.0	X	1	0	0																F47	PLATE	PLATE	0.04	250	BASKET PATTEN	1725	1775/1800	
L2	6	1	12	12.0	X	1	0	0											X					GX	?	JAR	0.09	140		43	425	
L2	6	1	4	4.0	X																			F45D/E						1500	1700	
L2	6	1	43	43.0	X	0	0	1																F40						1500	1800/1900	
L2	6	1	36	36.0	X	1	0	0													X			F40	LARGE BOWL/ PANCHEON	BOWL/ PANCHEON	0.11	270		1500	1800/1900	
L2	6	1	117	117.0	X	1	0	0																F40A	DISH	DISH	0.07	400		1600	1800	
L2	6	2	27	13.5	X	2	0	0																F48D	CUP	CUP	0.05	90		1800	2000	
L2	6	1	42	42.0	X																			HZ						-100	200/300	
L2	6	1	8	8.0	X															X				BASG	DRAG 18	DISH				43	100	
L2	6	1	39	39.0																				F21					PATCHY OR GLAZE EXT W-SLIP	1200	1550	
L2	6	1	7	7.0	X																			F42						1500	1700	
L2	6	1	201	201.0	X	0	0	1																F45M	BOTTLE	BOTTLE				1800	2000	
L2	6	1	12	12.0		1	0	0																F42	?	?	0.09	190	GR GL	1500	1700	
L2	6	1	17	17.0	X																			F51B						1800	2000	
L2	6	1	32	32.0	X	0	0	1																F40					GLAZE INT & EXT	1500	1800/1900	
L2	6	1	15	15.0	X	0	0	1																F48D					BTP	1800	2000	
L2	6	1	6	6.0	X																			BASG	DRAG 27	CUP				43	110	
L2	6	1	4	4.0	X																			F21					GREEN GL & WH SLIP	1200	1550	
L2	6	1	5	5.0	X																			F13						1000	1225	
L2	6	2	15	7.5	X																			F45M						1800	2000	
L2	6	1	26	26.0	X	0	0	1																F45F	TANKARD	TANKARD				1600	1800	
L2	6	3	41	13.7	X	2	0	1																F47	PLATE	PLATE	0.12	220	DOT, DIAPER & BASKET PATTERN	1725	1775/1800	
L2	6	1	7	7.0	X																			F22						1140	1325/1350	
L2	6	2	47	23.5	X	1	0	1																F42	DEEP DISH	DISH	0.05	320	GREEN GLAZE INT	1575	1675	

Context	Find no.	NR	GR.	MSW	Discard	Rim	Handle	Base	Stamp	Reading	Interpret.	Stamp. Ref	Graf Pre-F	Graf Post-F	Location	Visible (Y/N)	Reading	Wmd	Sooting (ext.)	Burning	Overfired	Other deposit	Mortar encrustation	Gritted	Fabric Group	Typology	Function	EVE	Diam.	Comments	Start Date	End Date	
L2	6	3	45	15.0	X	2	0	0																	F50	PRESS-MOULDED DISH	DISH	0.05	260	PRESS MOULDED DISH PIE CRUST RIM	1650	1800	
L2	6				X																				F50	PRESS-MOULDED DISH	DISH	0.03	?	PRESS MOULDED DISH PIE CRUST RIM	1650	1800	
L2	6	1	80	80.0	X	1	0	0												X			X		F50 (COL WH)	CAM 497	MORTARIA	0.09	300	B EXT FL	140	225	
L2	6	1	6	6.0	X																				F20							1150	1375/1400
L2	6	1	28	28.0	X																				DJ					BUFF	43	425	
L2	67	1	2	2.0	X																				F40							1500	1800/1900
L2	67	1	7	7.0	X																				F42					YELLOW GLAZE	1500	1700	
L2	67	1	6	6.0	X																				F20							1150	1375/1400
L2	67	1	10	10.0	X	1	0	0																	F21	LID SEATED COOKING POT	COOKING POT	0.06	220	F90.116	1400	1550	
L2	67	1	99	99.0	X																				F45E							1500	1700
L2	91	1	15	15.0	X																				F42							1500	1700
L2	91	2	35	17.5	X	1	0	0																	F50	PRESS-MOULDED DISH	DISH	0.05	260	PIE CRUST RIM	1650	1800	
L2	93	1	4	4.0	X																				GB							110/125	300
L2	93	1	14	14.0		1	0	0																	BSW 2	?	?	0.13	160		43	425	
L2	93	1	28	28.0		1	0	0																	F40	DISH	DISH	0.05	320	GREEN GL INT	1600	1750	
L2	93	2	32	16.0	X																				F20							1150	1375/1400
L2	93	1	8	8.0	X																				F50							1650	1800
L7	18	1	18	18.0		0	0	1																	F42							1500	1700
L7	18	1	30	30.0		0	0	1																	F40							1500	1800/1900
L7	18	1	21	21.0																					F21							1200	1550
L7	18	1	11	11.0		1	0	0																	GB	CAM 40B	DISH	0.03	?		120	275	
L7	18	1	464	464.0		1	0	0																	HZ	CAM 273	STORAGE	0.15	330		43	200/300	
L7	18	1	10	10.0	X																				GX							43	425
L7	18	1	40	40.0		0	0	1												X					F21							1200	1550

Context	Find no.	NR	GR.	MSW	Discard	Rim	Handle	Base	Stamp	Reading	Interpret.	Stamp. Ref	Graf Pre-F	Graf Post-F	Location	Visible (Y/N)	Reading	Wmd	Sooting (ext.)	Burning	Overfired	Other deposit	Mortar encrustation	Gritted	Fabric Group	Typology	Function	EVE	Diam.	Comments	Start Date	End Date
L7	18	1	9	9.0																					GX						43	425
L7	18	1	7	7.0																					F13						1000	1225
L8	38	1	14	14.0																					GX						43	425
L8	38	1	5	5.0	0	0	1	X	SAN[	Sanucius I die 1a	NOTS 8,89														BACG	DRAG 31	DISH				150	180
L8	38	2	63	31.5	1	0	1																		BACG	DRAG 31	DISH	0.08	240		150	220
L8	38	2	42	21.0	1	0	0																		F40	DISH	DISH	0.05	250		1600	1725/1750
L8	38	2	19	9.5	X																				F13						1000	1225
L8	38	1	17	17.0	X															X					F20						1150	1375/1400
L8	38	1	18	18.0	1	0	0																		KX	CAM 37B/38B	BOWL	0.10	200 ?		180	275
L8	38	2	95	47.5	0	0	1															X			GX						43	425
L8	38	1	14	14.0	1	0	0																		GB	CAM 40A	DISH	0.06	180		120	275
L9	31	2	95	47.5	0	0	1															X			GX					WHITE DEP (MORTAR) INT	43	425
L9	31	8	91	11.4	X																				GX						43	425
L9	31	1	19	19.0	0	0	1																		GB						110/125	300
L9	31	1	14	14.0	1	0	0																		GB	CAM 40A	DISH	0.06	190		120	275
L10	19	1	22	22.0	0	0	1																		GB						110/125	300
L11	33	1	3	3.0	X																				FJ						43	160
L12	40	1	3	3.0															X						GX						43	425
L12	40	2	10	5.0																					GX						43	425
L12	40	1	9	9.0																					GX						43	425
L12	40	1	72	72.0	1	0	0													X					NARB	GAULOISE 4	AMPHORAE	0.20	120		50	300
L12	102	1	163	163.0	1	0	0																		BAET	DR20C	AMPHORAE	0.22	160		50	70
L12	102	1	10	10.0	1	0	0												X						GX	CAM 507	LID	0.10	160	S EDGE RIM	43	425
L12	102	1	12	12.0	1	0	0																		GAB TN	CAM 16	PLATTER	0.08	180		40/45	150
L12	102	2	47	23.5																					DJ					PT WHITE NODS	43	425

Context	Find no.	NR	GR.	MSW	Discard	Rim	Handle	Base	Stamp	Reading	Interpret.	Stamp. Ref	Graf Pre-F	Graf Post-F	Location	Visible (Y/N)	Reading	Wmd	Sooting (ext.)	Burning	Overfired	Other deposit	Mortar encrustation	Gritted	Fabric Group	Typology	Function	EVE	Diam.	Comments	Start Date	End Date
L12	102	1	10	10.0	1	0	0																	DJ	CAM 154/155	FLAGON		0.01	?	CR/WH	43	69
L13	70	5	148	29.6	3	0	1																	F40	LARGE STORAGE JAR/ CISTERN	STORAGE JAR/CISTERN		0.10	240	OR GLAZE INT	1500	1800/1900
L13	70																							F40	LARGE STORAGE JAR	STORAGE JAR		0.09	270	OR GLAZE INT	1500	1800/1900
L13	70																							F40	DISH	DISH		0.06	330	OR GLAZE INT	1500	1800/1900
L13	70	1	9	9.0	X																			F48E							1775	2000
L13	70	1	10	10.0																				F48W						TEAPOT SPOUT	1740	1900
L13	70	1	8	8.0	X																			F45F							1600	1800
L13	70	1	15	15.0	X																			F13							1000	1225
L13	70	1	2	2.0	X																			F45F							1600	1800
L13	70	2	36	18.0																				F45D							1500	1700
L13	70	1	140	140.0	0	0	1																	F45D							1500	1700
L13	70	1	8	8.0																				F48D							1800	2000
L13	70	1	11	11.0	0	0	1																	F40						OR GLAZE INT	1500	1800/1900
L13	70	1	2	2.0																				BSW 1							43	425
L13	72	1	50	50.0	X																			F48D						BTP WP	1800	2000
L13	72	1	20	20.0	X	0	0	1																F50	PRESS-MOULDED DISH	DISH					1650	1800
L13	72	1	7	7.0	X																			F45F							1600	1800
L13	72	1	55	55.0	0	0	1	X	STEPHEN GREEN'S GLASS LINED INSIDE															F45M	BOTTLE/ JAR	BOTTLE/ JAR				LAMBETH, INT GLASS LINING	1831	1858
L13	72	1	95	95.0	X	0	0	1																F45M	BOTTLE/ JAR	BOTTLE/ JAR					1800	2000
L13	72	1	46	46.0	X																			F45M							1800	2000
L13	72	1	36	36.0	X	0	1	0																F45D	JUG	JUG					1500	1700
L13	72	1	30	30.0	X	1	0	0																F45M	JAR	JAR		0.15	130		1800	2000

Context	Find no.	NR	GR.	MSW	Discard	Rim	Handle	Base	Stamp	Reading	Interpret.	Stamp. Ref	Graf Pre-F	Graf Post-F	Location	Visible (Y/N)	Reading	Wmd	Sooting (ext.)	Burning	Overfired	Other deposit	Mortar encrustation	Gritted	Fabric Group	Typology	Function	EVE	Diam.	Comments	Start Date	End Date
L13	72	1	77	77.0	X	1	0	0																	TZ (COL WH)	CAM 497	MORTARIA	0.09	320		140	225
L13	72	1	5	5.0	X																				DJ					CR/WH GR TINGE	43	425
L13	72	2	76	38.0	X	0	0	2																	F21						1200	1550
L13	72	1	309	309.0		1	0	0																	F40	DRIPPING PAN	DRIPPING PAN	0.08	440	OR GLAZE INT	1550	1750
L13	85	1	8	8.0	X	0	0	1																	F50						1650	1800
L13	85	1	21	21.0	X																				F21						1200	1550
L13	85	1	31	31.0	X	0	0	1																	F20						1150	1375/1400
L13	85	1	9	9.0	X	1	0	0																	F45D	JUG/MUG	JUG/MUG	0.18	90		1500	1700
L13	85	1	55	55.0	X	1	0	0																	F42	DEEP BOWL	BOWL	0.11	255	YELLOW GLAZE, DEEP BOWL TYPE 2	1575	1700
L13	85	1	58	58.0	X	0	0	1																	F51A	STORAGE JAR	STORAGE JAR				1800	2000
L13	167	1	4	4.0																					F45F						1500	1800
L19	96	2	19	9.5																					DJ					PY/CR	43	425
L19	96	1	7	7.0		1	0	0													X				GX	CAM 108	BEAKER	0.20	90	SLIGHTLY GSW, WHITE DEP INT WMD?	43	130/140/200
L24	98	1	312	312.0		1	0	0																X	TZ	CAM 504/505	MORTARIA	0.11	360	PALE OR (FINE S, DRAKER BL GR, OR NODS	180/250	400
L24	100	3	408	136.0		0	0	1																	HZ (BSW)						-100	200/300
L24	100	1	24	24.0		1	0	0																	DJ	CAM 110	BEAKER	0.24	90	CR/WH	43/100	200
L27	159	1	82	82.0		1	0	0																	DJ	CAM 154	FLAGON	1.00	55	CR/PY	43	54
L27	159	1	32	32.0																					TZ (COL WH)		MORTARIA			?	43	225
L27	159	1	110	110.0																					NARB		AMPHORAE				-30	300
L27	159	1	11	11.0																					WA					BL, MORE MICA	43	425
L27	159	1	45	45.0		0	0	1													X				CS (A)					ITALY-CAMP, OF OR/RED TO PURPLE, STARTING TO MIT SURF	-20	100
L32	136	1	29	29.0																					GX						43	425
L32	136	1	16	16.0																					GB						110/125	300

Context	Find no.	NR	GR.	MSW	Discard	Rim	Handle	Base	Stamp	Reading	Interpret.	Stamp. Ref	Graf Pre-F	Graf Post-F	Location	Visible (Y/N)	Reading	Wmd	Sooting (ext.)	Burning	Overfired	Other deposit	Mortar encrustation	Gritted	Fabric Group	Typology	Function	EVE	Diam.	Comments	Start Date	End Date	
L32	136	1	63	63.0	0	0	1												X	X					HD							350	425
L32	136	1	83	83.0	0	0	1																		CH	CAM 316	BOWL					280	400
L32	136	1	75	75.0	0	0	1																		MR	CAM 316	BOWL			GREY CORE (OXF?)	280	400	
L33	122	1	45	45.0	1	0	0																		HD	CAM 532	JAR	0.20	165			350/375	425
L33	122	1	22	22.0	1	0	0																		GX	CAM 268	JAR	0.18	155	?		125/150	280/320
L33	122	1	28	28.0																					HAD RE1							200	400
L33	123	1	37	37.0	0	0	1																		HD					LATE	350	425	
L33	123	2	68	34.0																					GX							43	425
L33	123	1	37	37.0	1	0	0													X					MP	CAM 316	BOWL	0.21	150	MES FL, B EXT	280	400	
L33	123	1	221	221.0	1	0	0																		NAF AM	DR30/ KEAY 1B	AMPHORAE	0.33	100	RIBBED RIM, PALE YELLOW/WH SKIN, HARD OR/RED FABRIC SAND (COARSE) & WHITE INCS. MAURENTANIA	280	400	
L33	123	1	63	63.0	1	0	0																		GX	CAM 268	JAR	0.21	180			125/150	280/320
L33	123	1	39	39.0	X	1	0	0																	GA	CAM 305A	BOWL	0.09	210			275	425
L33	126	1	80	80.0	1	0	0																		KX	CAM 305B	BOWL	0.15	220	COARSE SAND	275	425	
L33	126	1	53	53.0	1	0	0																		GB	CAM 305B	BOWL	0.05	220			275	300
L33	126	1	28	28.0	1	0	0												X						BSW 2	CAM 268	JAR	0.22	100	HSOOTING EXT RIM & NECK, BR/BUFF CORE, SAND, GR/BL SURF	125/150	280/320	
L33	126	1	77	77.0	1	0	0																X	TN	CAM 505	MORTARIA	0.10	300			250/275	400	
L33	126	1	43	43.0	1	0	0																		CH	CAM 299?	BOWL	0.23	145	?		225/250	400
L33	126	1	22	22.0																					BAEG	DRAG 45	MORTARIA					150	260
L33	126	1	40	40.0	1	0	0																		GB	CAM 40A	DISH	0.15	200	NOT COL (PALE GREY, MICA, SLIPPED/BURN SUR)	110/125	275	
L35B	125	1	5	5.0																					EB					R-CAST INT, ROUL EXT	20	70	
L58	166	2	18	9.0	X															X					DJ	?	FLAGON			OR	43	425	
L59	164	1	3	3.0	X																				DJ (S)					OR/BR, SANDY	43	425	

Context	Find no.	NR	GR.	MSW	Discard	Rim	Handle	Base	Stamp	Reading	Interpret.	Stamp. Ref	Graf Pre-F	Graf Post-F	Location	Visible (Y/N)	Reading	Wmd	Sooting (ext.)	Burning	Overfired	Other deposit	Mortar encrustation	Gritted	Fabric Group	Typology	Function	EVE	Diam.	Comments	Start Date	End Date
L60	163	1	34	34.0	X																				DJ					PY/CR	43	425
L60	163	1	12	12.0															X						F20						1150	1375/1400
L60	163	1	16	16.0																					F21					C-FL GLAZE EXT	1200	1550
L60	163	1	16	16.0		1	0	0																	F40	DISH	DISH	0.04	?	EARLY F40 OR LATE F21, SANDY,VG GLAZE	1500	1600
L64	171	1	12	12.0																					GX						43	425
L64	171	1	19	19.0		1	0	0																	GX	CAM 268	JAR	0.12	125		125/150	280/320
L64	171	1	8	8.0		1	0	0											X						KX	CAM 278	JAR	0.11	150	S EXT TOP RIM	125/150	250/260
L64	171	2	34	17.0																					DJ (S)					FLASE WHITE SLIP	43	425
L64	171	1	5	5.0																					DJ (S)					BUFF GREY CORE, COMMON TO AB S (NOT COLCH)	43	425
L67	172	2	12	6.0																					GX						43	425
L67	172	1	5	5.0																					DJ					OR	43	425
US	110	1	5	5.0	X																				F40						1500	1800/1900

Appendix 7 CBM list

Context	Find no.	Number	Weight (g)	Mean Sherd Weight (g)	Discard	Typology	Sub-type	FL H.	FL W.	FL TH.	LCA	LCA L.	UCA	UCA L.	Sign.	Reading	Graf PF	Comb.	Roller	Die	Circ. Vt.	Rect. Vt.	PH R	PH SQ	L.	BR.	TH.	Column BR type	Column Diam.	Column EVE	Wall Pl. Col.	cm2	Mortar	Burnt	Overfired	Abraded	Modif.	Comments	Start Date	End Date		
F1	3	1	59	59.0	X	RB																																		43	425	
F1	3	3	91	30.3	X	PT																																			1200/1250	1600
F1	3	1	16	16.0	X	TESS																			27	22	20														43	425
F1	3	5	19	3.8	X	MORTAR																																		?	?	
F1	3	1	3	3.0	X	WALL PLASTER																									PINK	3								43	425	
F2	11	1	3272	3272.0	X	BR	UNFROGGED																		230	110	65													OR/RED GREY MORTAR	1775	1900
F10	12	1	3239	3239.0	X	BR	UNFROGGED																		235	117	65							X						OR, GREY MORTAR	1775	1900
F20	13	1	26	26.0	X	PT																																			1200/1250	1600
F20	13	1	3	3.0	X	RBT																																			43	425
F20	13	2	21	10.5	X	RBT																																			43	425
F20	13	1	9	9.0	X	RI																																			43	425
F25	41	1	6	6.0	X	RBT																																			43	425
F25	41	1	94	94.0	X	RI																																			43	425
F25	41	1	324	324.0		RT		53	36	20																															43	425
F25	103	1	517	517.0	X	RB																					35														43	425
F27	21	1	4	4.0	X	PT																																			1200/1250	1600
F27	22	1	2	2.0	X	MORTAR																																			?	?
F27	22	2	5	2.5	X	RBT																																			43	425
F28	26	2	45	22.5	X	TESS																																			43	425
F28	26	1	198	198.0	X	RT																																			43	425
F29	30	1	5136	5136.0	X	RB	PEDALIS																		?	285	35							X							43	425
F32	36	1	12	12.0	X	RI																																			43	425
F32	36	1	28	28.0	X	RBT																																			43	425
F32	36	1	40	40.0	X	RT																																			43	425

Context	Find no.	Number	Weight (g)	Mean Sherd Weight (g)	Discard	Typology	Sub-type	FL H.	FL W.	FL TH.	LCA	LCA L.	UCA	UCA L.	Sign.	Reading	Graf PF	Comb.	Roller	Die	Circ. Vt.	Rect. Vt.	PH R	PH SQ	L.	BR.	TH.	Column BR type	Column Diam.	Column EVE	Wall Pl. Col.	cm2	Mortar	Burnt	Overfired	Abraded	Modif.	Comments	Start Date	End Date		
F33	43	7	382	54.6	X	PT																	X																	1200/1250	1600	
F33	43	1	40	40.0	X	MORTAR																																		?	?	
F33	43	1	111	111.0	X	RBT																																		43	425	
F33	43	1	210	210.0	X	BR	UNFROGGED																		?	?	55												YELLOW GR TINGE			
F33	43	1	123	123.0	X	MORTAR																																		43	425	
F33	43	3	293	97.7	X	PT																																		1200/1250	1600	
F33	43	1	63	63.0	X	PT																	X											X						1200/1250	1600	
F33	43	1	54	54.0	X	RBT																																		43	425	
F33	46	7	7	1.0	X	DAUB																																		?	?	
F33	47	1	1	1.0	X	BR																																		1500	1900	
F33	48	1	25	25.0	X	RT																																		43	425	
F33	48	1	320	320.0	X	RT		40	22	20																										X				43	425	
F35	50	2	70	35.0	X	MORTAR																																			?	?
F35	50	2	163	81.5	X	RB																																			43	425
F35	50	1	20	20.0	X	RI																																			43	425
F35	50	2	113	56.5	X	RBT																																			43	425
F35	50	2	272	136.0	X	RT																																			43	425
F37	56	1	12	12.0	X	MORTAR																																		LOST PAINTED SURFACE	43	425
F38	57	1	9	9.0	X	TESS																											X								43	425
F39	82	1	7	7.0	X	MORTAR																																			?	?
F39	82	1	5	5.0	X	MORTAR																																			?	?
F52	111	1	227	227.0	X	RI																																			43	425
F52	111	1	300	300.0	X	RB																					33														43	425
F52	111	2	789	394.5	X	RB																											X								43	425
F52	111	1	515	515.0		RFT											X										25						X								43	425

Context	Find no.	Number	Weight (g)	Mean Sherd Weight (g)	Discard	Typology	Sub-type	FL H.	FL W.	FL TH.	LCA	LCA L.	UCA	UCA L.	Sign.	Reading	Graf PF	Comb.	Roller	Die	Circ. Vt.	Rect. Vt.	PH R	PH SQ	L.	BR.	TH.	Column BR type	Column Diam.	Column EVE	Wall Pl. Col.	cm2	Mortar	Burnt	Overfired	Abraded	Modif.	Comments	Start Date	End Date			
F52	111	1	608	608.0	X	RFT																					25					X							43	425			
F52	111	1	1211	1211.0	X	RB																					35					X							43	425			
F52	111	1	149	149.0		RT					C5				X												20												160	260			
F36	45	1	16	16.0	X	TESS																																	43	425			
F61	133	1	514	514.0	X	RI																																	43	425			
F61	133	1	221	221.0		RFT												X									105												43	425			
F61	133	1	1045	1045.0		RFT												X			X				160/155														LARGE RECT VENTS 90 MM	43	425		
F63	140	1	15	15.0	X	PT																																		1200/1250	1600		
F54	112	2	142	71.0	X	RI																																		43	425		
F54	112	4	1143	285.8	X	DAUB BR																																		43	425		
F54	112	1	133	133.0	X	RB																																		43	425		
F54	112	1	328	328.0		RT		52	32	17																														SOFTER BR, MORE MICACOUS	43	425	
F54	112	1	367	367.0		MORTAR																																			MOULDED CURVE 140 MM DIAM	43	425
F54	112	1	72	72.0	X	RI																																			43	425	
F54	112	8	2493	311.6	X	DAUB BR																			?	105	?														ONE KEPT	43	425
F70	152	1	41	41.0	X	PT																																			1200/1250	1600	
F70	152	1	7	7.0	X	BR																																			1500	1900	
F78	170	1	67	67.0		RBT																																			CR/PB, SMOOTH RED/OR NODS, SAND	43	425
F80	168	2	427	213.5		RT									X	TYPE S																									CR/PALE YELLOW	43	425
L2	5	1	105	105.0	X	UNID CBM																																			WH/CR, MODERN?	1800	2000
L2	6	1	25	25.0	X	UNID CBM																																			MODERN?	1800	2000
L2	6	1	13	13.0	X	PANT																																			1600	2000	
L2	6	1	14	14.0	X	MORTAR																																			?	?	
L2	6	1	8	8.0	X	MORTAR																																			?	?	

Context	Find no.	Number	Weight (g)	Mean Sherd Weight (g)	Discard	Typology	Sub-type	FL H.	FL W.	FL TH.	LCA	LCA L.	UCA	UCA L.	Sign.	Reading	Graf PF	Comb.	Roller	Die	Circ. Vt.	Rect. Vt.	PH R	PH SQ	L.	BR.	TH.	Column BR type	Column Diam.	Column EVE	Wall Pl. Col.	cm2	Mortar	Burnt	Overfired	Abraded	Modif.	Comments	Start Date	End Date				
L2	6	2	57	28.5	X	PT																																		1200/1250	1600			
L2	6	1	32	32.0	X	RBT																																			43	425		
L2	6	1	17	17.0	X	TESS																																			43	425		
L2	6	1	8	8.0	X	BR																																			1500	1900		
L2	6	1	19	19.0	X	UNID CBM																																		WH/CR, MODERN?	1800	2000		
L2	6	1	5	5.0	X	BAKED CLAY																																			?	?		
L2	6	1	2	2.0	X	BAKED CLAY																																				?	?	
L2	6	6	11	1.8	X	UNID CBM																																				?	?	
L2	6	1	6	6.0	X	UNID CBM																																				?	?	
L2	6	1	10	10.0	X	PT																																				1200/1250	1600	
L2	6	2	2	1.0	X	BAKED CLAY																																				?	?	
L2	6	1	12	12.0	X	BR																																				1500	1900	
L2	6	1	19	19.0	X	PT																																				1200/1250	1600	
L2	6	2	10	5.0	X	BAKED CLAY																																				?	?	
L2	6	1	9	9.0	X	RBT																																					43	425
L2	6	2	4	2.0	X	MORTAR																																					43	425
L2	6	1	19	19.0	X	TESS																																					43	425
L2	15	1	36	36.0		PT																																		CUT DOWN INTO DISC/STOPPER 50/55 MM DIAM	1200/1250		1600	
L2	67	4	191	47.8	X	PT																												X								1200/1250	1600	
L2	67	1	42	42.0	X	PANT																																					1600	1900
L2	67	1	59	59.0	X	BR																																					1500	1900
L2	91	1	125	125.0	X	PT																																					1200/1250	1600
L7	18	1	26	26.0		WALL PLASTER																								RED	2												43	425
L8	38	1	9	9.0	X	PT																																					1200/1250	1600
L8	38	1	30	30.0	X	PT																		X																			1200/1250	1600

Context	Find no.	Number	Weight (g)	Mean Sherd Weight (g)	Discard	Typology	Sub-type	FL H.	FL W.	FL TH.	LCA	LCA L.	UCA	UCA L.	Sign.	Reading	Graf PF	Comb.	Roller	Die	Circ. Vt.	Rect. Vt.	PH R	PH SQ	L.	BR.	TH.	Column BR type	Column Diam.	Column EVE	Wall Pl. Col.	cm2	Mortar	Burnt	Overfired	Abraded	Modif.	Comments	Start Date	End Date		
L9	31	1	30	30.0	X	WALL PLASTER																								WHITE	9								43	425		
L9	31	1	16	16.0	X	TESS																																	YELLOW	43	425	
L9	31	1	472	472.0	X	RT		50	30	25																														43	425	
L10	19	1	203	203.0	X	RBT																											X							43	425	
L10	19	1	230	230.0	X	RT		47	27	15																															43	425
L12	40	6	583	97.2		WALL PLASTER																									RED	144							2 LAYERS MORTAR 21 MM FINE WH, COARSER BUFF MORTAR	43	425	
L12	40	1	191	191.0		WALL PLASTER																									RED,YELLOW &WHITE								MUSTARD YELLOW, RED WITH THIN WHITE LINE, 2 LAYERS MORTAR 21 MM FINE WH, COARSER BUFF	43	425	
L12	40	1	17	17.0		WALL PLASTER																									PINK,YELLOW & BLACK	4								PINK WITH DARK YELLOW MUSTARD & BL SPLASHES	43	425
L12	55	4	537	134.3		WALL PLASTER																									RED	119								VGODD COND, 2 LAYERS MORTAR FINE WH 10-12, COARSER BUFF	43	425
L12	55	5	678	135.6		WALL PLASTER											X														RED	143								VGODD COND, GRAF INS SEMI CIRCLE, THIN	43	425
L12	55	6	578	96.3		WALL PLASTER											X														RED	125								GRAF CURVES/CIRCLES? THINLY ENGRAVED	43	425
L12	55	9	1432	159.1		WALL PLASTER																									RED	259								11-12 MM THICK GOOD MORTAR	43	425
L12	55	11	665	60.5		WALL PLASTER																									RED	214									43	425
L12	55	3	1222	407.3		WALL PLASTER																									RED	164								15-16 THICK MORTAR	43	425
L12	55	1	50	50.0		WALL PLASTER																									YELLOW & WHITE RED & ORANGE	45								MUSTARD YELLOW, WHITE LINE (IN TWO 2ND PART WHITE LINE ADDED OVER YELLOW	43	425
L12	55	1	103	103.0		WALL PLASTER																										33								RED WITH THIN 5MM PALE ORANGE? LINE	43	425
L12	55	1	43	43.0		WALL PLASTER																									PINK, YELLOW, WHITE & BLACK	12								PINK WITH MUSTARD YELLOW, WHITE & RARE BLACK DOTS/SPLASHES	43	425
L12	55	1	109	109.0		WALL PLASTER																									BLACK, RED & WHITE	42								BLACK & RED WITH 6 MM WHITE LINE	43	425

Context	Find no.	Number	Weight (g)	Mean Sherd Weight (g)	Discard	Typology	Sub-type	FL H.	FL W.	FL TH.	LCA	LCA L.	UCA	UCA L.	Sign.	Reading	Graf PF	Comb.	Roller	Die	Circ. Vt.	Rect. Vt.	PH R	PH SQ	L.	BR.	TH.	Column BR type	Column Diam.	Column EVE	Wall Pl. Col.	cm2	Mortar	Burnt	Overfired	Abraded	Modif.	Comments	Start Date	End Date		
L12	55	4	290	72.5		WALL PLASTER																								BLACK	84						BLACK (BLUISH) PATCHY IN PLACES	43	425			
L12	55	1	35	35.0		WALL PLASTER																								BLACK	10						BLACK (OVER PAINTED OVER RED SOME SHOWING THROUGH)	43	425			
L12	55	1	122	122.0		WALL PLASTER																								BLACK & RED	22						BLACK WITH THIN 2 MM RED LINE (SOME RED SHOWING THROUGH BLACK)	43	425			
L12	55	1	191	191.0		WALL PLASTER																								BLACK	31						BLACK OVERPAINTED WHITE LINE 10 MM & RED (SHOWING THROUGH?)	43	425			
L12	55	1	197	197.0		WALL PLASTER																								BLACK							PATCHY BLACK SOME RED SHOWING THROUGH PLUS TRACE GUIDELINES FOR LINE/DIAG?	43	425			
L12	55	2	382	191.0		WALL PLASTER																								RED & BLACK	81						PATCHY BLACK OVER RED, BETTER THIN RED LINE 3 MM & BLACK LINE	43	425			
L13	70	3	15	5.0	X PT																																		1200/1250	1600		
L13	70	1	3	3.0	X BR																																		1500	1900		
L13	70	1	2	2.0	X UNID CBM																																		?	?		
L13	70	1	78	78.0	X RT																																		43	425		
L13	70	1	29	29.0	X PT																																		1200/1250	1600		
L13	70	2	17	8.5	X BR																																		1500	1900		
L13	70	1	16	16.0	X RBT																																		43	425		
L13	70	1	75	75.0		FLOOR TILE																																		DARK GLAZE	1200	1600
L13	70	1	28	28.0	X PT																																			1200/1250	1600	
L13	70	1	14	14.0	X BR																																			1500	1900	
L13	70	1	55	55.0	X RBT																															X			43	425		
L13	70	1	36	36.0	X PT																																			1200/1250	1600	
L13	70	1	7	7.0	X BR																																			1500	1900	

Context	Find no.	Number	Weight (g)	Mean Sherd Weight (g)	Discard	Typology	Sub-type	FL H.	FL W.	FL TH.	LCA	LCA L.	UCA	UCA L.	Sign.	Reading	Graf PF	Comb.	Roller	Die	Circ. Vt.	Rect. Vt.	PH R	PH SQ	L.	BR.	TH.	Column BR type	Column Diam.	Column EVE	Wall Pl. Col.	cm2	Mortar	Burnt	Overfired	Abraded	Modif.	Comments	Start Date	End Date					
L13	70	1	1	1.0	X	MORTAR																																		?	?				
L13	85	1	14	14.0	X	TESS																										X								43	425				
L13	85	2	4	2.0	X	UNID CBM																																		?	?				
L13	167	1	3	3.0	X	BAKED CLAY																																		?	?				
L13	167	2	12	6.0	X	RBT																																		43	425				
L13	167	4	5	1.3	X	UNID CBM																																		?	?				
L16	92	1	213	213.0	X	RBT																																			43	425			
L16	92	3	206	68.7	X	DAUB BR																																			43	425			
L19	101	1	499	499.0		RB																					65															PALE BUFF/KARKHI SAME AS SOME OF THE CYBLE KILN TILES	43	425	
L19	101	1	490	490.0		RT							B1																				X									PALE BUFF/KARKHI SAME AS SOME OF THE CYBLE KILN TILES, OP SIG ON UNDERSIDE, OR FLAT TILE	43	425	
L24	100	2	433	216.5	X	RT																																				P-Y/PK	43	425	
L27	159	2	404	202.0	X	RI																																				43	425		
L27	159	1	10	10.0	X	RBT																																				43	425		
L27	159	1	229	229.0	X	RI																																				43	425		
L27	159	2	372	186.0	X	RT																																				PY	43	425	
L27	159	1	450	450.0		RT		65	44	27	A28																																EARLY THICK WIDE FL, BUFF/BR, Y/WH NODS & STREAKS, OR/RED NODS, MARBLED	40	120
L27	159	1	530	530.0		RT		66	7	31																									X								OR/BUFF PY/WH NODS SOME STREAKS	43	425
L27	159	1	2581	2581.0		DAUB BR																					82								X								BUFF/OR	43	425
L27	159	2	1196	598.0		RT		56	30	25																																	43	425	
L27	159					RT		52	20	22																																	43	425	
L27	159	1	947	947.0	X	RB																					32																	43	425

Context	Find no.	Number	Weight (g)	Mean Sherd Weight (g)	Discard	Typology	Sub-type	FL H.	FL W.	FL TH.	LCA	LCA L.	UCA	UCA L.	Sign.	Reading	Graf PF	Comb.	Roller	Die	Circ. Vt.	Rect. Vt.	PH R	PH SQ	L.	BR.	TH.	Column BR type	Column Diam.	Column EVE	Wall Pl. Col.	cm2	Mortar	Burnt	Overfired	Abraded	Modif.	Comments	Start Date	End Date				
L27	159	1	541	541.0		RT		2	2	23																												OR/RED S&WH/YEL NODS	43	425				
L27	159	1	2474	2474.0		DAUB BR																					78												OR, LINEAR VOIDS	43	425			
L27	159	1	484	484.0		RT		50	35	22																															43	425		
L27	159	1	841	841.0		RT		55	30	31					X	TYPE H																										43	425	
L27	159	1	292	292.0	X	RI																													X				GREY	43	425			
L27	159	1	2169	2169.0	X	DAUB BR																					90												BR, LIN VOIDS SURF, SOME FL NODS/PEBS	43	425			
L32	134	4	2798	699.5		RT		45	27	20																																43	425	
L32	134					RT		53	25	27	D?																															260	380	
L32	134					RT		50	20	22	A?																															40	120	
L32	134					RT		55	21	26					X																											43	425	
L32	134	1	272	272.0		RFT												X																		X					43	425		
L32	134	1	2202	2202.0		RT		45	25	25	C4																													SIGN CURVES, F-GROOVE	160	260		
L32	135	1	3452	3452.0	X	RB									X																											43	425	
L32	135	1	2533	2533.0	X	RB																			320+	200+	42															43	425	
L32	136	1	383	383.0	X	RB																					45															43	425	
L32	136	2	221	110.5	X	RBT									X	TYPE F																											43	425
L32	136	1	470	470.0		RT		50	23	26	C5/56																															160	260	
L32	136	1	736	736.0		RT		40	33	25	D1	47			X	TYPE N																											260	380
L32	136	1	44	44.0	X	RI																																					43	425
L32	136	1	748	748.0	X	RB																					40																43	425
L32	136	1	615	615.0		RT		40	20	18		B4	44																													43	425	
L33	122	2	1377	688.5		RT		40	30	23	C5/56	55																															160	260
L33	122					RT		50	35	25	A28																																40	120
L33	123	1	349	349.0	X	OP SIG																																					43	425
L33	123	1	379	379.0	X	RB																																					43	425

Context	Find no.	Number	Weight (g)	Mean Sherd Weight (g)	Discard	Typology	Sub-type	FL H.	FL W.	FL TH.	LCA	LCA L.	UCA	UCA L.	Sign.	Reading	Graf PF	Comb.	Roller	Die	Circ. Vt.	Rect. Vt.	PH R	PH SQ	L.	BR.	TH.	Column BR type	Column Diam.	Column EVE	Wall Pl. Col.	cm2	Mortar	Burnt	Overfired	Abraded	Modif.	Comments	Start Date	End Date			
L33	123	1	26	26.0	X	RBT																																		43	425		
L33	123	1	48	48.0	X	RFT												X														X								43	425		
L33	123	1	259	259.0	X	RI																																	YELLOW	43	425		
L33	123	1	632	632.0		RT		55	35	20																										X			WORN UNDERSIDE TILE	43	425		
L33	123	2	699	349.5		RFT												X			X						19													43	425		
L33	123	1	999	999.0		RT		55	25	25			B4	60																										43	425		
L33	123	1	222	222.0	X	RI																																			43	425	
L33	123	1	882	882.0		RT		50	28	20																															43	425	
L33	123	1	314	314.0		RFT												X															X								43	425	
L33	123	1	182	182.0	X	RI																																			43	425	
L33	123	1	93	93.0	X	RB																											X								43	425	
L33	123	2	527	263.5		RFT												X																							43	425	
L33	123	1	495	495.0		RFT															X						22													VENT 65 MM DIAM	43	425	
L33	123	1	942	942.0		RT		45	38	20	C5/56	45																													43	425	
L33	126	1	134	134.0	X	RI																																			43	425	
L33	126	1	495	495.0	X	RB																					32														43	425	
L33	126	1	454	454.0		MORTAR																																			43	425	
L33	126	1	129	129.0	X	RI																																			43	425	
L33	126	2	441	220.5	X	RT																																			43	425	
L33	126	1	12	12.0	X	RBT																																			43	425	
L33	126	1	107	107.0	X	RBT																																			43	425	
L33	126	1	219	219.0	X	RI																																			43	425	
L33	126	1	459	459.0		RT		50	30	20																															43	425	
L35B	113	1	41	41.0	X	RBT																																				43	425
L35B	125	1	357	357.0		RFT														X													X							VENT C.45MM DIAM	43	425	

Context	Find no.	Number	Weight (g)	Mean Sherd Weight (g)	Discard	Typology	Sub-type	FL H.	FL W.	FL TH.	LCA	LCA L.	UCA	UCA L.	Sign.	Reading	Graf PF	Comb.	Roller	Die	Circ. Vt.	Rect. Vt.	PH R	PH SQ	L.	BR.	TH.	Column BR type	Column Diam.	Column EVE	Wall Pl. Col.	cm2	Mortar	Burnt	Overfired	Abraded	Modif.	Comments	Start Date	End Date					
L35B	125	1	353	353.0	X	RBT																																		43	425				
L35B	125	1	150	150.0		MORTAR																					28													YELLOW TINGE UP SURF	43	425			
L35B	125	1	1729	1729.0		RB																					37						X								43	425			
L35B	125	1	378	378.0	X	MORTAR																																			43	425			
L35B	125	1	432	432.0		MORTAR																					40														YELLOW TINGE UP SURF	43	425		
L35B	125	1	412	412.0		MORTAR																																			TEG IMP	43	425		
L35B	125	1	821	821.0		RB																																				43	425		
L35B	125	1	302	302.0		RT		50	32	30	A26	80																														WIDE THICK EARLY FL	40	120	
L35B	125	1	1411	1411.0		RT		62	35	30	A?																																WIDE THICK EARLY FL	40	120
L41	121	1	154	154.0	X	RI																																					43	425	
L41	121	1	211	211.0	X	RB																																					43	425	
L41	121	1	234	234.0		RFT												X																X									43	425	
L44	120	2	108	54.0	X	RBT																																					43	425	
L44	120	2	1617	808.5	X	DAUB BR																					90															ONE KEPT	43	425	
L44	120	1	86	86.0	X	RT																																					43	425	
L44	120	1	91	91.0		RI																																					YELLOW	43	425
L44	120	1	145	145.0	X	RT																															X						43	425	
L44	120	1	179	179.0		RT		55	32	22																																	43	425	
L44	120	1	62	62.0	X	RBT																																						43	425
L44	120	1	489	489.0	X	RB																					38-40																43	425	
L44	120	1	270	270.0	X	DAUB BR																																					43	425	
L46	129	1	1783	1783.0		COLM BR																					48/50	1/4TH	215?	?												ONE IRREGULAR SLIGHTLY CURVED EDGE COLM BR OR DEFORMED BR?	43	425	
L46	129	1	9	9.0	X	RBT																																						43	425
L46	129	1	1663	1663.0	X	RB																																						43	425

Context	Find no.	Number	Weight (g)	Mean Sherd Weight (g)	Discard	Typology	Sub-type	FL H.	FL W.	FL TH.	LCA	LCA L.	UCA	UCA L.	Sign.	Reading	Graf PF	Comb.	Roller	Die	Circ. Vt.	Rect. Vt.	PH R	PH SQ	L.	BR.	TH.	Column BR type	Column Diam.	Column EVE	Wall Pl. Col.	cm2	Mortar	Burnt	Overfired	Abraded	Modif.	Comments	Start Date	End Date		
L51	141	1	9	9.0	X	WALL PLASTER																								RED	3								43	425		
L58	162	1	131	131.0	X	RT		?	38	?																													43	425		
L58	166	1	107	107.0	X	RT																																	43	425		
L64	171	1	1453	1453.0		RT		51	25	?	B6				X	TYPE S																								100	180	
L64	171	1	482	482.0		RT		50	15	21			B7																				X							43	425	
US	2	1	4	4.0	X	BR																																		1500	1800/1900	
US	110	1	31	31.0	X	PT																																		1200/1250	1600	
US	110	1	31	31.0	X	BR																																		1500	1800/1900	
US	?	1	1223	1223.0		RFT													X	71						210	25						X							DIE 71 EXS LONDON BILLINGSGATE BATH HOUSE (LATE 2ND/E3RD)	43	425

Appendix 8 Small finds list

Small Finds	Context	Finds no.	Material	Object Type	Condition	Description	Count	Weight (g)	Length (mm)	Width (mm)	Thickness (mm)	Diameter (mm)	Dating
SF1	L2	69	Gold	Finger-ring	Excellent	Fig 32.1. Two complete but slightly distorted gold finger-rings. They appear to join along the plain hoops but it is uncertain if they were deliberately made like this. The rings are small, probably for a child. Ring A: The gold finger-ring has a flat, oval bezel decorated with 25 raised gold pellets arranged in a diamond shape. The plain hoop tapers away from the bezel starting with an oval cross-section which becomes a round cross-section. Distorted but 15.15mm by 16.2mm, max. 1.4mm thick across bezel, bezel 6.5mm long by 3.5mm wide, hoop at narrowest 0.8mm diameter. Ring B: The gold finger-ring has a flat, elongated pointed-oval bezel decorated with three short strands of raised gold wire. The wire is formed into a central circle with a drop-shape on either side. The plain hoop tapers away from the bezel starting with an oval cross-section which becomes a round cross-section. Distorted but 15.15mm by 16.2mm, max. 0.96mm thick across bezel, bezel 8.9mm long by 2.0mm wide, hoop at narrowest 0.8mm diameter.	2	1.8	17.04	14.56	5.35		Roman
SF2	L2	54	Copper-alloy	Coin	Fair	Complete bronze halfpenny of George V, 1933. Obverse: Bust left, bare head, GEORGIVS V DEI GRA BRITT OMN REX FID DEF IND IMP. Reverse: Britannia seated right, HALF PENNY 1933. Die axis: 12	1	5.5				25.50	Modern, 1933
SF3	L2	54	Copper-alloy	Coin	Fair	Complete bronze penny of Edward VII, 1904. Obverse: Bust right, bare head, EDWARDVS VII DEI GRA BRITT OMN REX FID DEF IND IMP. Reverse: Britannia seated right, ONE PENNY 1904. Die axis: 6	1	9.1				30.88	Modern, 1904
SF4	L2	54	Copper-alloy	Coin	Fair	Complete copper halfpenny of William III, 1697. First issue. Obverse: Bust right, laureate and cuirassed, GVLIELMVS TERTIVS. Reverse: Britannia with right hand raised, BRITANNIA 1697. Die axis: 6.	1	9.8				29.28	Post-medieval, 1697
SF5	L2	54	Copper-alloy	Coin	Poor	Complete copper halfpenny of William III, date illegible (1695-1701). Obverse: Bust right, laureate and cuirassed, GVLIELMVS TERTIVS. Reverse: Britannia with right hand raised, BRITANNIA 1697. Die axis: 6.	1	10.7				28.72	Post-medieval, 1695-1701

SF6	L2	54	Copper-alloy	Coin	Poor	Complete copper farthing of William and Mary, 1694. Obverse: Conjoined busts right, GVLIELMVS ET MARIA. Reverse: Britannia seated left with right hand raised, BRITANNIA (date obscured but should be 1694).	1	5.6				22.58	Post-medieval, 1694
SF7	L2	54	Copper-alloy	Coin	Fair	Complete copper royal farthing token of James I, 1613-1614, Type 1 Harrington (North 1991, ref. 2130). Obverse: Two lis-headed sceptres in saltire through a single-arched crown, IACO D G MAG BRIT. Reverse: Harp surmounted by a single-arched crown, FRA ET HIB REX. Fret initial mark on reverse before legend. Die axis: 6.	1	0.2				12.36	Post-medieval, 1613-1614
SF8	L2	54	Copper-alloy	Coin	Fair	Complete Roman 4th century nummus, City Commemorative Coin of Constantinopolis, AD 330-340. Obverse: Constantinopolis, inscription illegible. Reverse: Victory standing left on prow holding spear and shield. Die axis: 6. Roman Coinage Issue Period 17.	1	2.4				17.72	Roman, AD 330-340
SF9	L2	54	Copper-alloy	Coin	Poor	Complete contemporary copy of a Roman 4th century nummus, probably a very poor/crude copy of a two soldiers, one/two standards reverse (GLORIA EXERCITVS). Obverse illegible.	1	1.0				14.23	Roman, 4th century
SF10	L2	54	Lead alloy	Token	Poor	Lead token, post-medieval, with a bust on one side and a triquetra (three-legged figure) on the other.	1	5.3			1.45	22.27	Post-medieval, 1540-1900
SF11	L2	54	Lead alloy	Token	Poor	Lead token, post-medieval, with a bust on one side, the other side is illegible	1	5.0			1.66	24.03	Post-medieval, 1540-1900
SF12	L2	54	Lead alloy	Token	Fair	Small rectangular piece of lead, flat on one side with moulded decoration on the other in the form of a diagonal line from one corner to the opposite and a star on either side of the line	1	1.5	12.13	10.86	1.65		Post-medieval, 1540-1900
SF13	L2	54	Copper-alloy	Buckle	Excellent	Fig 32.3. Complete two-piece Jacobean shoe buckle. A sub-rectangular shoe buckle with drilled frame for a separate spindle which attaches the pin and chape. The frame is plain. It has a stud chape - a heart-shaped chape with a single upstanding stud at its end. Frame: 35.70mm long, 25.39mm wide; chape: 29.68mm long; total 7.95mm thick across stud.	1	14.3	45.66	25.39	4.49		Post-medieval, 1690-1720
SF14	L2	54	Copper-alloy	Button	Excellent	Fig 32.2. A cast one-piece button with integral undrilled shank.	1	3.0	13.64	10.05		10.05	Medieval/post-medieval, late 15th-16th century
SF15	L2	67	Copper-alloy	Coin	Good	Complete Roman <i>quinarius</i> of Allectus, AD 293-296, London mint. Obverse: Bust right, radiate and cuirassed, IMP C ALLECTVS PF AVG. Reverse: galley sailing left, VIR[TV]S AVG, QL in exergue. Die axis: 6. Roman Coinage Issue Period 14.	1	2.5				19.53	Roman, 293-296

SF16	L2	67	Copper-alloy	Coin	Poor	Incomplete Roman barbarous radiate, c AD 260-296. Obverse: Radiate bust right, inscription illegible. Reverse: Illegible.	1	2.8				21.28	Roman, 260-296
SF17	L2	67	Copper-alloy	Coin	Poor	Complete Roman barbarous radiate, c AD 260-296. Obverse: Radiate bust right, inscription illegible. Reverse: Crude standing figure, one arm raised, other possibly holding a spear, star in left field, [...]AE[...]. Die axis: 10.	1	1.8				16.51	Roman, 260-296
SF18	L2	67	Copper-alloy	Coin	Poor	Complete contemporary copy of a Roman 4th century nummus. Obverse: Pearl-diademed bust right, illegible. Reverse: Two Victories facing holding wreaths, S over T between, mintmark in exergue illegible. Inscription should read: VICTORIAE DD AVGGQ NN but it is missing. Die axis: 12. Roman Coinage Issue Period: 17.	1	1.5				14.09	Roman, 4th century
SF19	L2	67	Copper-alloy	Coin	Poor	Complete coin, probably Roman, in poor condition and illegible.	1	2.5				19.00	?Roman
SF20	L2	67	Lead alloy	Token	Fair	Lead token, heptagon in shape, with a raised T on the front, plain on the back.	1	7.6	23.45	24.29	2.5		Post-medieval, 1540-1900
SF21	L2	67	Lead alloy	Token	Fair	Irregularly round lead token with worn impressions on both sides. On one side the impression is square, but all that is now visible is a line of pellets along one edge. On the other is a raised rectangle with a heavily scored line down the centre.	1	7.7	21.95	21.94	2.25		Post-medieval, 1540-1900
SF22	L8	52	Lead alloy	Sheet	Fair	Fragment of lead sheet, irregular edges, folded in half	1	8.7	26.63	23.28	2.06		Undated
SF23	L10	27	Copper-alloy	Coin	Poor	Probably a coin, in very poor condition.	1	1.6				17.75	Undated
SF24	L11	51	Copper-alloy	Strip	Poor	Strip of copper-alloy with oval cross-section	1	0.6	14.43	4.81	2.97		Undated
SF25	L13	70	Copper-alloy	Pin	Poor	Dress pin with small globular head	1	<0.1	24.38			1.89	Post-medieval, 1540-1900
SF26	L13	70	Copper-alloy	Jetton	Poor	Complete but in very poor condition and virtually illegible. What is visible indicates that this is a jetton rather than a coin.	1	2.8				25.60	Post-medieval, 1540-1900
SF27	L13	71	Copper-alloy	Coin	Poor	Complete but in very poor condition and illegible, probably post-medieval.	1	11.6				29.45	Post-medieval, 1540-1900
SF28	L13	99	Copper-alloy	Coin	Good	Complete 4th century Roman nummus, City Commemorative Coin of Rome AD 330-340. Obverse: Roma, VRBS ROMA. Reverse: Wolf and twins, two stars above, mintmark THS(dot) in exergue. Thessalonica mint. Die axis: 6.	1	2.9				16.41	Roman, 330-340
SF29	L13	99	Lead alloy	Lead shot	Good	Lead shot.	1	35.5				18.52	Post-medieval, 1540-1900

SF30	L13	99	Lead alloy	Lead shot	Good	Lead shot.	1	30.6				17.44	Post-medieval, 1540-1900
SF31	L13	99	Copper-alloy	Studs	Good	Eleven coffin studs, c 14-15mm diameter, c 12-14mm long.	11	17.1					Post-medieval, 1540-1900
SF32	F25	44	Copper-alloy	Coin	Fair	Incomplete Roman barbarous radiate, c AD 260-296. Obverse: Radiate bust right, inscription illegible. Reverse: Appears to be a crocodile with palm behind, ...]DO[... Die axis: 5.	1	2.9				20.01	Roman, 260-296
SF33	F31	53	Lead alloy	Fragment	Poor	Fragment of lead.	1	2.8	20.47	9.48	2.09		Undated
SF34	F37	59	Copper-alloy	Ring	Fair	Very small ring, circular-sectioned (c 1mm diameter). Similar to SF38.	1	<0.1				11.45	Post-medieval, 1540-1900
SF35	F39	82	Copper-alloy	Pin	Fair	Dress pin, bent, head missing.	1	<0.1	40.57			0.95	Post-medieval, 1540-1900
SF36	F41	79	Copper-alloy	Studs	Good	Thirty-five coffin studs, c 7-9mm diameter, 9-12mm long.	35	15.3					Post-medieval, 1540-1900
SF37	F45	87	Copper-alloy	Pins	Poor	Five fragments of dress pins. One has a globular head, the rest are shaft fragments.	5	<0.1					Post-medieval, 1540-1900
SF38	F55	116	Copper-alloy	Ring	Fair	Very small ring, circular-sectioned (c 1.1mm diameter). Similar to SF34.	1	<0.1				11.25	Post-medieval, 1540-1900
SF39	F61	133	Copper-alloy	Fragment	Poor	Fragment.	1	1.5	15.74	13.75	8.04		Undated
SF40	F41	79	Copper-alloy	Pin	Fair	Complete dress pin, globular head.	1	<0.5	25.39			1.69	Post-medieval, 1540-1900
SF41	U/S	130	Copper-alloy	Coin	Poor	Complete, probably Roman, illegible	1	1.1				13.13	Roman
SF42	F30	28	Lead alloy	Plaque	Good	Complete coffin plaque - SOPHIA RANSON / DIED / 21 FEBRUARY 1824 / AGED 14 YEARS	1						Post-medieval, 1824
SF43	F38	58	Bone	?Handle	Good	Fig 32.6. Incomplete, solid, round-sectioned shaft. From the flat head, the shaft expands slightly before tapering to the break. It is plain aside from a band of decoration around the break. From what can be seen, the decoration consists of at least two circumferential grooves with six diagonal grooves across them. Could be a handle.	1	7.2	83.13			9.60	Undated
SF44	L13	72	Pipeclay	Wig curler	Excellent	Fig 32.4. Complete wig curler stamped at both ends with initials WB surmounted by a crown with a dot below.	1	8.0	58.06			11.02	Post-medieval, 1540-1900
SF45	L2	5	Pipeclay	Wig curler	Excellent	Complete wig curler with small perforation at both ends	1	9.2	60.91			12.82	Post-medieval, 1540-1900
SF46	L2	6	Pipeclay	Wig curler	Good	Incomplete wig curler (approximately half)	1	5.9	38.68			13.23	Post-medieval, 1540-1900
SF47	F62	38	Bone	?Tuning peg	Good	Fig 32.5. Possible tuning peg, incomplete, circular-sectioned shaft with slightly expanded and flattened wedge-shaped head with small perforation.	1	2.3	54.94	7.12	5.31		Post-medieval
SF48	L2	6	Stone	Quernstone	Poor	Fragment of lava quernstone, no distinguishing features	1	698.9	119.20	83.60	41.45		Undated

SF49	F80	169	Stone	Hone	Good	Fig 32.7. Incomplete rectangular stone hone with small hole (for a chord) at one end, other end worn and broken.	1	21.8	66.4	18.4	8.9		Undated
-------------	-----	-----	-------	------	------	---	---	------	------	------	-----	--	---------

Appendix 9 Stone catalogue – geological character and source

Context	Finds no.	Weight (g)	Count	Type of object	Stone type	Geological source
F25	41	175	1	Fragment of veneer 20mm thick not especially polished fine diagonal tooling one side	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i>	Purbeck marble - "Blue Bed" Early Cretaceous (Barriasian) Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Williams 2002, 126)
F25	41	33	1	Fragment of veneer 12mm thick not especially polished	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera tinged red</i>	Purbeck marble - "Blue Bed" Early Cretaceous (Barriasian) Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Williams 2002, 126)
F25	41	10	1	Very thin veneer 5mm thick very smooth fragment. Fig 37.10	Pale lime green porphyritic meta-andesite. Coloured green by silicate minerals epidote and chlorite and black devitrified glass; white phenocrysts plagioclase	Sparta Porphyry Green Porphyry <i>Porfido verde antico</i> Permian-Carboniferous. Krokeai, near Sparta, Levetsova, Laconia. South-east part of the Peloponnese, Greece
F25	95	28	1	Very thin veneer 6mm thick very smooth fragment. Fig 37.13	Purple-red porphyritic andesite-dacite or porphyric dacite; ¹¹ quartz andesite. ¹ Purple groundmass coloured by haematite and the manganese-bearing silicate mineral piemontite. Small pink or white plagioclase phenocrysts, rare small black crystals of biotite or basaltic hornblende exhibiting a flow structure.	Purple Porphyry Imperial porphyry; red porphyry; <i>lapis porphyrites</i> Late Pre-Cambrian–early Palaeozoic. Dokhan Volcanic Suite. Ancient and modern Mons Porphyrites quarries of Gebel Dokhan or Eastern Desert, Egypt; 30km inland from the Red Sea
F26	20	89	1	Fragment of veneer 20mm thick worn not smooth	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i>	Purbeck marble - "Blue Bed" Early Cretaceous (Barriasian) Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Williams 2002, 126)
F26	20	8	1	Very thin veneer 6mm thick very smooth fragment grey brecciated rock	Highly Variable white brecciated conglomerate with white marble clasts in grey (here) or red purple matrix	Pavonezzetto or Docimaeen marble Iscehisar, ancient Docimium (near modern Afyon in west-central Turkey).
F26	20	66	3	Very thin veneer 6mm thick very smooth fragments. Fig 36.9	Sheared and folded impure green calcitic marble rich in silicates primary green chlorite	Cipollino verde <i>marmor Carystium</i> Late Cretaceous - Tertiary, Isle of Euboea, Greece
F26	20	25	1	Thicker veneer smooth fragment 10mm thick fragment	Sheared and folded impure green calcitic marble rich in silicates primary green chlorite	Cipollino verde <i>marmor Carystium</i> Late Cretaceous - Tertiary, Isle of Euboea, Greece
F26	20	37	1	Thin veneer 12mm	White, medium to coarse grained dolomitic crystalline marble.	Thasos Marble (Thasium) Basement rocks made of Tertiary dolomitic or calcitic marble. Cape Vathy and Aliki, Isle of Thasos, Kavála, Greece.

F26	20	86	1	Medium veneer corner weathered with black opus signinum attached	White, medium to coarse grained dolomitic crystalline marble.	Thasos Marble (Thasium) Basement rocks made of Tertiary dolomitic or calcitic marble. Cape Vathy and Alik, Isle of Thasos, Kavála, Greece.
F26	20	168	1	Thickest veneer 20mm	White, medium to coarse grained dolomitic crystalline marble.	Thasos Marble (Thasium) Basement rocks made of Tertiary dolomitic or calcitic marble. Cape Vathy and Alik, Isle of Thasos, Kavála, Greece.
F26	20	51	1	Thin veneer polished with flecks of red opus signinum attached to edges i.e. reused 15mm	Polymict limestone Conglomerate. Clast boundaries and contacts sutured. Note stylolites and extensive calcite filled fractures	<i>Breccia corallina giallastra</i> ; breccia Godoy Verzirhan, Bilecik, Turkey
F26	20	103	1	Thick veneer 12mm no edges smooth Fig 36.7	Polymict limestone Conglomerate. Clast boundaries and contacts sutured. Note stylolites and extensive calcite filled fractures	<i>Breccia corallina giallastra</i> ; breccia Godoy Verzirhan, Bilecik, Turkey
F26	20	57	2	Two fragments no edges very thin smooth 8mm	Polymict limestone Conglomerate. Clast boundaries and contacts sutured. Note stylolites and extensive calcite filled fractures	<i>Breccia corallina giallastra</i> ; breccia Godoy Verzirhan, Bilecik, Turkey
F26	20	51	1	Thick veneer 12mm no edges smooth	Polymict limestone Conglomerate. Clast boundaries and contacts sutured. Note stylolites and extensive calcite filled fractures	<i>Breccia corallina giallastra</i> ; breccia Godoy Verzirhan, Bilecik, Turkey
F26	20	162	2	Reused black mortar with red flecks of tile and brick thick veneer relatively rough surface one has an edge smooth no tooling 12mm thick	Large and small ivory-white limestone clasts in an orange, salmon-pink haematite matrix, fractured	Breccia Corallina <i>Marmor Sagarium</i> Cretaceous. Vezirhan, Bilecik, north Turkey
F28	26	129	2	Two worn thin inlays 9 to 10mm thick	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i> tinged red with iron oxide	Purbeck marble - "Blue Bed" Early Cretaceous (Barriasian) Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Williams 2002, 126)
F28	26	124	2	Thicker inlays 20mm one has vertical smooth edge no tooling	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i> snails are broken	Purbeck marble - "Broken Beds" Early Cretaceous (Barriasian) Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Cordiner & Brook 2017; Williams 2002, 126)
F28	26	16	1	Very thin veneer 6mm thick very smooth fragment grey brecciated rock. Fig 37.17	Highly Variable white brecciated conglomerate with white marble clasts in grey (here) or red purple matrix	Pavonezzetto or Docimaeen marble Iscehisar, ancient Docimium (near modern Afyon in west-central Turkey).
F28	26	70	2	Thin veneer not polished or smooth 8mm no edges	White, medium to coarse grained dolomitic crystalline marble.	Thasos Marble (Thasium) Basement rocks made of Tertiary dolomitic or calcitic marble. Cape Vathy and Alik, Isle of Thasos, Kavála, Greece.

F28	26	91	1	Medium veneer not polished or smooth 11mm no edges	White, medium to coarse grained dolomitic crystalline marble.	Thasos Marble (Thasium) Basement rocks made of Tertiary dolomitic or calcitic marble. Cape Vathy and Aliki, Isle of Thasos, Kavála, Greece.
F28	26	17	1	Medium to thick veneer smooth no edges 17mm white brecciation purple matrix	Large and small ivory-white limestone clasts in an orange, salmon-pink haematite matrix, fractured	Breccia Corallina <i>Marmor Sagarium</i> Cretaceous. Vezirhan, Bilecik, north Turkey
F28	26	38	1	Very thin 8mm quite smooth no edges	Polymict limestone Conglomerate. Clast boundaries and contacts sutured. Note stylolites and extensive calcite filled fractures	<i>Breccia corallina giallastra</i> ; breccia Godoy Verzirhan, Bilecik, Turkey
F28	26	81	1	Thick no edges 16mm quite smooth	Polymict limestone Conglomerate. Clast boundaries and contacts sutured. Note stylolites and extensive calcite filled fractures	<i>Breccia corallina giallastra</i> ; breccia Godoy Verzirhan, Bilecik, Turkey
F31	29	87	1	Thick broken at least 15mm thick quite smooth no edges	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i> snails are broken	Purbeck marble - "Broken Beds" Early Cretaceous (Barriasian) Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Cordiner & Brook 2017; Williams 2002, 126)
F31	29	59	1	Average thickness 12mm 80 degree angled bevelled edge	Polymict limestone Conglomerate. Clast boundaries and contacts sutured. Note stylolites and extensive calcite filled fractures	<i>Breccia corallina giallastra</i> ; breccia Godoy Verzirhan, Bilecik, Turkey
F31	37	46	1	Very thick inlay broken at base smooth surface at least 19mm thick no form	Highly Variable white brecciated conglomerate with white marble clasts in grey (here) or red purple matrix	Pavonezzetto or Docimaeen marble Iscehisar, ancient Docimium (near modern Afyon in west-central Turkey).
F31	37	74	1	Average thickness 11mm smooth surface no edge	Polymict limestone Conglomerate. Clast boundaries and contacts sutured. Note stylolites and extensive calcite filled fractures	<i>Breccia corallina giallastra</i> ; breccia Godoy Verzirhan, Bilecik, Turkey
F31	37	91	1	Curved edge very thick quite smooth 22mm	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i> snails are broken	Purbeck marble - "Broken Beds" Early Cretaceous (Barriasian) Durlston Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Cordiner & Brook 2017; Williams 2002, 126)
F31	37	86	1	Average thickness no edges quite rough	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i> snails are broken	Purbeck marble - "Broken Beds" Early Cretaceous (Barriasian) Durlston Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Cordiner & Brook 2017; Williams 2002, 126)
F33	43	24	1	Very thin element broken or bevelled edge just 7mm thick. Opus sectile triangle edges 50mm x 50mm x 35mm, isosceles triangle. Fig 36.6	Dark grey dolomitic cementstone Lithotype La of Allen & Fulford (2004) (Allen et al. 2007)	Dolomitic Cementstone –Upper Jurassic (Kimmeridgian) Dorset

F34	39	111	1	Smoothish inlay no edges 11mm thick	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i> tinged red with iron oxide	Purbeck marble - "Blue Bed" Early Cretaceous (Barriasian) Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Williams 2002, 126)
F35	65	23	1	Broken fragment probably not very thin smooth surface at least 6mm	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i> snails are broken	Purbeck marble - "Broken Beds" Early Cretaceous (Barriasian) Durlston Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Cordiner & Brook 2017; Williams 2002, 126)
F36	45	16	1	Very thin inlay 6mm roughly smooth surface no edges	White, medium to coarse grained dolomitic crystalline marble.	Thasos Marble (Thasium) Basement rocks made of Tertiary dolomitic or calcitic marble. Cape Vathy and Alik, Isle of Thasos, Kavála, Greece.
F38	57	79	1	<i>Opus sectile</i> triangle, 14mm thick, possibly right-angled, triangle 65mm high, 85mm long, edges sharp no tooling. Fig 35.2	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i> snails are broken	Purbeck marble - "Broken Beds" Early Cretaceous (Barriasian) Durlston Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Cordiner & Brook 2017; Williams 2002, 126)
F38	57	280	1	<i>Opus sectile</i> rectangle, c 60% survived, 80-degree bevelled edges 20mm, in excellent condition, 71mm across by 80mm + long, underside shallower Fig 35.1	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i> tinged red with iron oxide	Purbeck marble - "Blue Bed" Early Cretaceous (Barriasian) Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Williams 2002, 126)
L2	6	221	1	<i>Opus sectile</i> elongate rod- shaped rectangle, 130mm long x 30mm wide plus rounded edge 20mm thick. Compliments Kimmeridge Dolstone	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i>	Purbeck marble - "Blue Bed" Early Cretaceous (Barriasian) Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Williams 2002, 126)
L2	6	222	1	<i>Opus sectile</i> elongate rod- shaped rectangle, 125mm long x 35mm wide plus rounded edge 20mm thick. Compliments Purbeck marble	Dark grey dolomitic cementstone Lithotype La of Allen & Fulford (2004) (Allen et al. 2007)	Dolomitic Cementstone –Upper Jurassic (Kimmeridgian) Dorset
L2	6	290	2	Fragments of inlay no form thickness	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i> snails are broken one is bleached some of the small snails hollowed out	Purbeck marble - "Broken Beds" Early Cretaceous (Barriasian) Durlston Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Cordiner & Brook 2017; Williams 2002, 126)
L2	6	24	2	Very thin poorly preserved veneers 7mm smooth surface. Fig 36.8	Polymict limestone Conglomerate. Clast boundaries and contacts sutured. Note stylolites and extensive calcite filled fractures	<i>Breccia corallina giallastra</i> ; breccia Godoy Verzirhan, Bilecik, Turkey

L2	6	41	1	Very thin 8mm smooth weathered surface	Large and small ivory-white limestone clasts in an orange, salmon-pink haematite matrix, fractured	Breccia Corallina <i>Marmor Sagarium</i> Cretaceous. Vezirhan, Bilecik, north Turkey
L2	14	19	1	Very thin veneer 4mm	Highly Variable tectonic limestone breccia with large inclusions white, purple and pink set in black or here very dark green matrix	Africano <i>Marmor luculleum</i> Cretaceous Teos, Izmir, Turkey
L2	67	25	1	Very thin highly polished smooth veneer no edges 6mm	Pale lime green porphyritic meta-andesite. Coloured green by silicate minerals epidote and chlorite and black devitrified glass; white phenocrysts plagioclase	Sparta Porphyry Green Porphyry <i>Porfido verde antico</i> Permian-Carboniferous. Krokeai, near Sparta, Levetsova, Laconia. South-east part of the Peloponnese, Greece
L7	16	53	1	Veneer 8mm thick polished	Polymict limestone Conglomerate. Clast boundaries and contacts sutured. Note stylolites and extensive calcite filled fractures	<i>Breccia corallina giallastra</i> ; breccia Godoy Vezirhan, Bilecik, Turkey
L7	18	146	1	Veneer no edges large white Unio Bivalves 30mm across at least 11mm thick Fig 35.4	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i> snails and larger 2-3cm irregular cream unio shells	Purbeck marble – Green Beds Cretaceous (Barriasian) Durlston Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Williams 2002, 126)
L7	18	161	1	Veneer no edges smooth surface 10mm thick	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i> snails are broken	Purbeck marble - "Broken Beds" Early Cretaceous (Barriasian) Durlston Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Cordiner & Brook 2017; Williams 2002, 126)
L7	18	26	1	Very thin veneer stained quite bad 7mm	Polymict limestone Conglomerate. Clast boundaries and contacts sutured. Note stylolites and extensive calcite filled fractures	<i>Breccia corallina giallastra</i> ; breccia Godoy Vezirhan, Bilecik, Turkey
L7	18	63	1	Standard thickness maroon veneer not especially smooth. Fig 37.14	White, lilac pink, violet brecciated hard condensed limestone violet underside and side	Stromatactoid bioclastic Limestone e.g. Rouge Royal a type of Red Devonian Belgian Marble,
L8	38	48	1	Thin 9mm thick no edges	Large and small ivory-white limestone clasts in an orange, salmon-pink haematite matrix, fractured	Breccia Corallina <i>Marmor Sagarium</i> Cretaceous. Vezirhan, Bilecik, north Turkey
L8	38	33	1	Thin 9mm very fine bevelled edge. Fig 37.12	Highly variable tectonic limestone breccia with large inclusions white, purple and pink set in black or here very dark green matrix	Africano <i>Marmor luculleum</i> Cretaceous Teos, Izmir, Turkey
L8	38	57	2	Thin white crystalline veneer 7mm	White, medium to coarse grained dolomitic crystalline marble.	Thasos Marble (Thasium) Basement rocks made of Tertiary dolomitic or calcitic marble. Cape Vathy and Alik, Isle of Thasos, Kavála, Greece.
L8	38	25	1	Curved edge 12mm thick well-made same form as Purbeck below. Fig 35.3b	White, medium to coarse grained dolomitic crystalline marble.	Thasos Marble (Thasium) Basement rocks made of Tertiary dolomitic or calcitic marble. Cape Vathy and Alik, Isle of Thasos, Kavála, Greece.

L8	38	31	1	Curved edge 12mm thick well-made same form as Thassos above. Fig 35.3a	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i>	Purbeck marble - "Blue Bed" Early Cretaceous (Barriasian) Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Williams 2002, 126)
L8	38	29	1	Thin veneer deposit on top masking stone fabric	Sheared and folded impure green calcitic marble rich in silicates primary green chlorite	Cipollino verde <i>marmor Carystium</i> Late Cretaceous - Tertiary, Isle of Euboea, Greece
L8	38	150	2	Opus Sectile bevelled edge on one no clear shape though	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i>	Purbeck marble - "Blue Bed" Early Cretaceous (Barriasian) Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Williams 2002, 126)
L8	38	27	1	Thin roughly smooth veneer no form 10mm	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i>	Purbeck marble - "Blue Bed" Early Cretaceous (Barriasian) Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Williams 2002, 126)
L8	38	129	1	Thick paving and veneer 21mm	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i> snails are broken	Purbeck marble - "Broken Beds" Early Cretaceous (Barriasian) Durlston Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Cordiner & Brook 2017; Williams 2002, 126)
L8	38	505	1	Large Opus Sectile fragment rectangular as per other example 31mm thick 90 to 100mm across and 32mm thick	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i> snails are broken	Purbeck marble - "Broken Beds" Early Cretaceous (Barriasian) Durlston Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Cordiner & Brook 2017; Williams 2002, 126)
L8	38	204	2	Thick veneer 21mm	Polymict limestone Conglomerate. Clast boundaries and contacts sutured. Note stylolites and extensive calcite filled fractures	<i>Breccia corallina giallastra</i> ; breccia Godoy Verzirhan, Bilecik, Turkey
L8	38	65	1	Thin 9mm surface not smooth somewhat irregular. Fig 37.15	Unusual red and white limestone or calcareous sandstone which is very fine	UNKNOWN possibly Belgium Red
L9	31	37	1	Thin Veneer 8mm	Polymict limestone Conglomerate. Clast boundaries and contacts sutured. Note stylolites and extensive calcite filled fractures	<i>Breccia corallina giallastra</i> ; breccia Godoy Verzirhan, Bilecik, Turkey
L9	31	130	1	Thick Veneer 14mm	Large and small ivory-white limestone clasts in an orange, salmon-pink haematite matrix, fractured	Breccia Corallina <i>Marmor Sagarium</i> Cretaceous. Vezirhan, Bilecik, north Turkey
L9	31	32	1	Thin Veneer 6mm. Fig 37.16	White, medium to coarse grained dolomitic crystalline marble.	Thasos Marble (Thasium) Basement rocks made of Tertiary dolomitic or calcitic marble. Cape Vathy and Alik, Isle of Thasos, Kavála, Greece.

L10	19	41	1	Medium veneer no form 15mm	White, medium to coarse grained dolomitic crystalline marble.	Thasos Marble (Thasium) Basement rocks made of Tertiary dolomitic or calcitic marble. Cape Vathy and Alikí, Isle of Thasos, Kavála, Greece.
L10	19	50	1	Thick Veneer no form	White, medium to coarse grained dolomitic crystalline marble.	Thasos Marble (Thasium) Basement rocks made of Tertiary dolomitic or calcitic marble. Cape Vathy and Alikí, Isle of Thasos, Kavála, Greece.
L10	19	235	1	Opus sectile square to rectangular form bevelled edge rough under side. Fig 36.5	Dark grey dolomitic cementstone Lithotype La of Allen & Fulford (2004) (Allen et al. 2007)	Dolomitic Cementstone –Upper Jurassic (Kimmeridgian) Dorset
L10	19	17	2	Very thin not especially smooth veneer just 4mm	Sheared and folded impure green calcitic marble rich in silicates primary green chlorite	Cipollino verde <i>marmor Carystium</i> Late Cretaceous - Tertiary, Isle of Euboea, Greece
L10	19	59	1	Relatively thin veneer reused 8mm	Highly Variable tectonic limestone breccia with large inclusions white, purple and pink set in black or here very dark green matrix	Africano <i>Marmor Iuculleum</i> Cretaceous Teos, Izmir, Turkey
L10	19	22	1	Thin veneer 7mm reused and burnt	Highly Variable white brecciated conglomerate with white marble clasts in grey (here) or red purple matrix	Pavonezzetto or Docimaeen marble Iscehisar, ancient Docimium (near modern Afyon in west-central Turkey).
L10	19	148	3	Veneers 11mm thick no form	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i>	Purbeck marble - "Blue Bed" Early Cretaceous (Barriasian) Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Williams 2002, 126)
L10	19	47	1	Veneer 11mm thick no form	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i> snails are broken	Purbeck marble - "Broken Beds" Early Cretaceous (Barriasian) Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Cordiner & Brook 2017; Williams 2002, 126)
L10	19	146	1	Medium veneer no form roughly smooth surface 15mm	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i> snails are broken	Purbeck marble - "Broken Beds" Early Cretaceous (Barriasian) Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Cordiner & Brook 2017; Williams 2002, 126)
L10	19	318	2	Medium veneer no form smooth 15mm	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i>	Purbeck marble - "Blue Bed" Early Cretaceous (Barriasian) Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Williams 2002, 126)
L10	19	55	1	Ribbed veneer 55mm long x 40mm wide and 17mm thick. Fig 37.11	Fine even grained deep red impure marble	Rosso Antico <i>marmor Taenarium</i> Cretaceous-Eocene, Cape Taenaro Mani Peninsula, SE Greece

L13	72	66	1	Medium thickness veneer not particularly smooth no form	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i> snails are broken red iron oxide	Purbeck marble - "Broken Beds" Early Cretaceous (Barriasian) Durlston Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Cordiner & Brook 2017; Williams 2002, 126)
L13	72	25	1	Curved edge 12mm thick well-made same form as Purbeck L8 and Thasos L8	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i>	Purbeck marble - "Blue Bed" Early Cretaceous (Barriasian) Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Williams 2002, 126)
L13	85	376	1	Thick paver veneer 30mm no form	Highly Variable tectonic limestone breccia with large inclusions white, purple and pink set in black or here very dark green matrix	Africano <i>Marmor luculleum</i> Cretaceous Teos, Izmir, Turkey
L13	85	37	1	Curved edge 12mm thick well-made same form as Purbeck L8 and Thasos L8 and L13	Hard light-grey condensed fine shelly limestone packed full of small sparry freshwater snails <i>Paludina carinifera</i>	Purbeck marble - "Blue Bed" Early Cretaceous (Barriasian) Durlston Formation Purbeck Group Isle of Purbeck, Dorset (Arkell 1947, 134; Williams 2002, 126)
L13	85	25	1	Thin veneer 8mm	Polymict limestone Conglomerate. Clast boundaries and contacts sutured. Note stylolites and extensive calcite filled fractures	<i>Breccia corallina giallastra</i> ; breccia Godoy Verzirhan, Bilecik, Turkey
L13	85	297	1	Thick marble veneer reused and poor condition no form 19mm	White, medium to coarse grained dolomitic crystalline marble.	Thasos Marble (Thasium) Basement rocks made of Tertiary dolomitic or calcitic marble. Cape Vathy and Alik, Isle of Thasos, Kavála, Greece.
L20	97	48	1	Thin veneer 8mm quite weathered smooth surface	Highly Variable white brecciated conglomerate with white marble clasts in grey (here) or red purple matrix	Pavonezzetto or Docimaeon marble Iscehisar, ancient Docimium (near modern Afyon in west-central Turkey).
L25	106	206	1	Medium polished veneer 13mm thick	Large and small ivory-white limestone clasts in an orange, salmon-pink haematite matrix, fractured	Breccia Corallina <i>Marmor Sagarium</i> Cretaceous. Vezirhan, Bilecik, north Turkey

Appendix 10 Animal bone data**Faunal remains from securely dated Roman and medieval contexts**

Context	Find no.	Taxon	Skeletal part	Side	No. of pieces	No. cut	No. gnawed	Proximal fusion	Distal fusion	Surface erosion	Discolouration (generally darker colouring)	Comments
L27	159	Cow	Metacarpal	Left	1		1	F	F	Slight	Strong	Measured. Z1,2,3,4,5,6,7,8. Slight superficial dog gnawing. Age >2-2 ½ years.
	159	Cattle or horse sized	Rib		1							
	159	Sheep or goat sized	Rib		1							
	159	Cattle or horse sized	Diaphysis fragments		1					Severe	Strong	Radius fragment?
L33	122	Cattle or horse sized	Skull fragments		1					Slight	Natural colour	
	123	Cow	Mandible	Left	1					Moderate	Strong	TWS recorded. Z1 (half).
	123	Cow	Pelvis	Right	1	1				Moderate	Strong	Z3, 8 (both half). Short slice mark Z8 (arm of pubis). Also chopped? Bone breakage?
	123	Cattle or horse sized	Vertebrae		1				U	Moderate	Strong	Oblique/vertical chop marks from bone breakage on dorsal spine.
	109	Cow	Metatarsal	Right	1	1	1	F	F	Slight	Strong	Measured. Z1,2,3,4,5,6,7,8. Slight superficial dog gnawing. Age >2-2 ½ years.
	109	Cow	Single tooth (maxilla)		4					Slight	Irregular	
	109	Pig	Single tooth (mandible)		1					Slight	Natural colour	Incisor.
	109	Pig	Mandible		1					Slight	Natural colour	Left canine, female?
	109	Cow	Humerus	Right	1	1			F	Moderate	Natural colour	Z5,6,7,8 (half). Z3 and Z4 may have been removed by chopping, bone breakage? Age > 12-18 months.
	109	Cattle or horse sized	Tibia		1	1				Moderate	Natural colour	Possible chop mark from deliberate bone breakage.
	109	Cattle or horse sized	Rib		3	1	1			Moderate	Natural colour	

Context	Find no.	Taxon	Skeletal part	Side	No. of pieces	No. cut	No. gnawed	Proximal fusion	Distal fusion	Surface erosion	Discolouration (generally darker colouring)	Comments
	109	Cattle or horse sized	Skull fragments		4					Moderate	Strong	
	109	Cattle or horse sized	Mandible		1					Moderate	Strong	
	109	Cattle or horse sized	Vertebrae		1	1	1			Moderate	Strong	Heavy destructive dog gnawing.
	109	Sheep or goat sized	Vertebrae		1	1		U	U	Moderate	Strong	Slight superficial dog gnawing.
	109	Cattle or horse sized	Femur distal epiphysis		1	1			U	Moderate	Strong	Z9. Two (possibly three) short transverse and oblique slice marks on anterior/lateral side. Age < 3 ½ - 4 years.
	109	Cattle or horse sized	Atlas		1	1				Moderate	Strong	Chopped/cubed.
	109	Cattle or horse sized	Diaphysis fragments		1					Moderate	Strong	Deliberate bone breakage.
L41	121	Sheep/goat	Mandible	Right	1		1			Severe	Moderate	TWS recorded.
L58/ L59	165	Horse	Radius and ulna	Left	1	1		F	F	Moderate	Mild	Measured. Z1,2 (half),3,4 (half),5,6,7,8,9,10. e.f. Vertical chop through Z2 and possibly Z4 and Z10. Age > 3 ½ years.
L64	171	Cervidae	Antler		1		1			Slight	Mild	Antler tine (brow?), probably from a red deer. Possible signs of rodent gnawing? Tip and underside possibly worn from use as a tool. Base is roughly broken.
F34	39	Fish (indeterminate species)			1							
F36	45	Cattle or horse sized	Rib		3		2			Moderate	Moderate	
	45	Sheep or goat sized	Rib		1		1			Moderate	Moderate	
	45	Cattle or horse sized	Scapula		1					Moderate surface erosion	Moderate discolouration	

Measured animal bone**Horse****Radius**

Context	Finds no.	Taxon	Skeletal part	GL	BP	BD	SD	Comments
L58/59	165	Horse	Radius and ulna	>297			33.96	Both proximal and distal joints are damaged.

Cattle**Metacarpal**

Context	Finds no.	GL	SD	B at F	BFd	BFDm (a)	1	2 Ddm	3	BFdl (b)	4	5 Ddl	6
L27	159	184	28.42	48.32	51.12	24.31	21.9	27.68a	25.5	24.3	20.6	27.3	26

Metatarsal

Context	Finds no.	GL	SD	B at F	BFd	BFDm (a)	1	2 Ddm	3	BFdl (b)	4	5 Ddl	6
L33	109	198	23.8	45.75	47.85	22.2	19.1	26.7	24.9	23.1	19.7	26.3	25

Tooth wear stage

Context	Finds no.	Skeletal part	dp4	P4	M1	M1/M2	M2	M3	Comments
L33	123	Mandible		f	j				Age based on erupted state of P4 is approximately 30-36 months +.

Caprine**Tooth wear stage**

Context	Finds no.	Skeletal part	dp4	P4	M1	M1/M2	M2	M3	Comments
L41	121	Mandible		g	f		f	broken	Age based on erupted state of P4 and M3 is approximately 18-24 months +.

Faunal remains from post-Medieval/modern and poorly dated contexts by taxon

Context	Date	Type	Find no.	Taxon	No. of pieces	No. Cut	No. Gnawed	No. Burnt	No. Pathology	Comments
F1	Medieval/ post-medieval	Inhumation burial	3	Cattle or horse sized	2	0	0	0	0	
			3	Sheep or goat sized	2	0	0	0	0	
			3	Sus domesticus (domestic pig)	1	0	0	0	0	
F2	Post-medieval	Burial chamber	9	Cattle or horse sized	1	0	1	0	0	
			9	Ovis/capra (sheep/goat)	1	1	0	0	0	
			9	Sheep or goat sized	1	0	0	0	0	
F11	Post-medieval, backfilled c 1955	Soakaway	10	Cattle or horse sized	1	1	0	0	0	Sawn rib.
F20	Post-medieval	Burial chamber	13	Cattle or horse sized	14	3	1	0	0	
			13	Ovis/capra (sheep/goat)	2	0	0	0	0	
			13	Sheep or goat sized	5	2	2	0	0	
			13	Sus domesticus (domestic pig)	1	0	1	0	0	
			13	Unidentified	2	0	0	0	0	
F25	Post-medieval	Metalled surface	32	Bos taurus (domestic cattle)	2	1	1	0	0	
			41	Bos taurus (domestic cattle)	2	0	0	0	0	
			41	Cattle or horse sized	2	0	0	0	0	
			41	Ovis/capra (sheep/goat)	1	0	0	0	0	
			41	Sheep or goat sized	1	0	1	0	0	
			41	Sus domesticus (domestic pig)	1	0	0	0	0	
			95	Bos taurus (domestic cattle)	5	0	0	0	0	
			103	Bos taurus (domestic cattle)	1	0	0	0	0	
			103	Cattle or horse sized	3	0	0	0	0	
F26	Post-medieval	Metalled surface	20	Bos taurus (domestic cattle)	3	2	1		0	

Context	Date	Type	Find no.	Taxon	No. of pieces	No. Cut	No. Gnawed	No. Burnt	No. Pathology	Comments
			20	Cattle or horse sized	4	2	2	0	0	
F27	Medieval/ post-medieval	Inhumation burial	21	Cattle or horse sized	4	1	3	0	0	
			21	Sheep or goat sized	4	0	0	0	0	
			21	Unidentified	1	0	0	0	0	Pig astragalus fragment?
F28	Medieval/ post-medieval	Inhumation burial	26	Aves (indeterminate species)	1	0	0	0	0	Very large radius, proximal fragment.
			26	Bos taurus (domestic cattle)	1	0	0	0	0	
			26	Cattle or horse sized	4	1	3	0	0	
			26	Ovis/Capra (sheep/goat)	1	0	1	0	0	
			26	Sheep or goat sized	1	0	1	0	0	
			26	Sus domesticus (domestic pig)	3	0	1	0	0	
F30	Post-medieval, 1824	Inhumation burial	34	Bos taurus (domestic cattle)	1	0	0	0	0	
			34	Cattle or horse sized	4	1	0	0	0	
			34	Ovis/Capra (sheep/goat)	1	0	0	0	0	
			34	Rodentia (indeterminate species)	2	0	0	0	0	
			34	Sheep or goat sized	4	0	3	0	0	
			34	Unidentified	2	0	1	0	0	
			35	Cattle or horse sized	1	0	0	0	0	
			35	Small sized mammal	1	0	0	0	0	Small - rodent sized vertebrae.
F31	Post-medieval	Pit	29	Cattle or horse sized	1	0	0	0	0	
			29	Ovis/Capra (sheep/goat)	1	0	1	0	0	
			37	Cattle or horse sized	1	0	0	0	0	
			37	Ovis/Capra (sheep/goat)	1	0	1	0	0	
F32	Post-medieval	Possible pit	36	Aves (indeterminate species)	1	0	0	0	0	Possibly chicken/bantam.

Context	Date	Type	Find no.	Taxon	No. of pieces	No. Cut	No. Gnawed	No. Burnt	No. Pathology	Comments
			36	Bos taurus (domestic cattle)	2	0	1	0	0	
			36	Fish (indeterminate species)	1	0	0	0	0	
			36	Ovis/Capra (sheep/goat)	1	0	0	0	0	
			36	Unidentified	1	1	0	0	0	
F33	Medieval/ post-medieval	Inhumation burial	43	Bos taurus (domestic cattle)	2	0	0	0	0	
			43	Cattle or horse sized	3	1	0	0	0	Saw marks.
			43	Ovis/Capra (sheep/goat)	1	0	0	0	0	
			43	Sheep or goat sized	12	0	7	0	0	
			43	Small sized mammal	1	0	0	0	0	
			43	Unidentified	4	0	0	0	0	
			48	Ovis/capra (sheep/goat)	1	0	0	0	0	
			48	Sheep or goat sized	1	0	0	0	0	
			48	Unidentified	1	0	0	0	0	
F35	Post-medieval	Pit	50	Bos taurus (domestic cattle)	2	0	1	0	0	
			50	Fish (indeterminate species)	1	0	0	0	0	
			50	Ovis/capra (sheep/goat)	3	0	0	1	0	Includes a fragment of goats horn core?
			50	Sheep or goat sized	2	1	0	0	0	
F37	Medieval/ post-medieval	Inhumation burial	56	Cattle or horse sized	4	0	1	0	0	
			56	Ovis/capra (sheep/goat)	2	0	1	0	0	
			56	Sheep or goat sized	2	0	1	0	0	
			56	Unidentified	2	0	0	0	0	
F38	Medieval/ post-medieval	Inhumation burial	57	Anas platyrhynchos (mallard)	1	0	0	0	0	
			57	Bos taurus (domestic cattle)	1	0	0	0	0	
			57	Cattle or horse sized	3	0	0	0	0	

Context	Date	Type	Find no.	Taxon	No. of pieces	No. Cut	No. Gnawed	No. Burnt	No. Pathology	Comments
			57	Ovis/capra (sheep/goat)	1	0	0	0	0	
			57	Unidentified	2	0	0	0	0	
F39	Medieval/ post-medieval	Inhumation burial	82	Aves (indeterminate species)	1	0	0	0	0	
			82	Bos taurus (domestic cattle)	2	0	0	0	0	
			82	Cattle or horse sized	2	0	0	0	0	
			82	Ovis/capra (sheep/goat)	2	0	0	0	0	
			82	Sheep or goat sized	4	0	1	0	0	
F40	Medieval/ post-medieval	Inhumation burial	75	Cattle or horse sized	2	0	0	0	0	
			75	Lepus europaeus (European hare)	1	0	0	0	0	
			75	Sheep or goat sized	1	0	0	0	0	
			75	Unidentified	1	0	0	0	0	
F41	Medieval/ post-medieval	Inhumation burial	78	Cattle or horse sized	2	0	1	0	0	
			78	Sheep or goat sized	1	0	0	0	0	
			78	Sus domesticus (domestic pig)	1	0	0	0	0	
F45	Medieval/ post-medieval	Inhumation burial	94	Bos taurus (domestic cattle)	1	0	1	0	0	
			94	Ovis/capra (sheep/goat)	2	0	0	0	0	
			94	Unidentified	2	0	0	0	0	
F63	Post-medieval	Inhumation burial	140	Cattle or horse sized	3	2	0	0	0	
			140	Ovis/Capra (sheep/goat)	3	0	1	0	0	
			140	Sheep or goat sized	3	0	0	0	0	
			140	Unidentified	1	0	0	0	0	
F65	Medieval/Post- medieval	Inhumation burial	149	Equus caballus (horse)	1	0	1	0	0	
			149	Sheep or goat sized	1	0	1	0	0	
F74	Post-medieval	Inhumation burial	150	Ovis/capra (sheep/goat)	1	0	0	0	0	

Context	Date	Type	Find no.	Taxon	No. of pieces	No. Cut	No. Gnawed	No. Burnt	No. Pathology	Comments
L2b	Post-medieval/ modern	Graveyard soil	5	Bos taurus (domestic cattle)	1	0	0	0	0	
			5	Cattle or horse sized	6	1	1	0	0	
			5	Ovis/capra (sheep/goat)	4	0	2	0	0	
			5	Sheep or goat sized	5	0	0	0	0	
			5	Sus domesticus (domestic pig)	1	0	1	0	0	
			6	Aves (indeterminate species)	2	0	0	0	0	
			6	Bos taurus (domestic cattle)	26	6	8	0	0	
			6	Canis familiaris (dog)	1	0	0	0	0	
			6	Cattle or horse sized	66	17	12	0	0	Cuts include saw marks.
			6	Equus caballus (horse)	7	2	0	0	0	
			6	Ovis/capra (sheep/goat)	38	4	15	0	0	
			6	Sheep or goat sized	42	6	11	0	0	
			6	Small sized mammal	1	0	0	0	0	
			6	Sus domesticus (domestic pig)	4	2	1	0	0	
			6	Unidentified	6	0	0	0	0	
			67	Anser anser domesticus (domestic goose)	2	0	0	0	0	
			67	Bos taurus (domestic cattle)	9	0	1	0	0	
			67	Cattle or horse sized	26	2	3	0	0	
			67	Ovis/capra (sheep/goat)	1	0	0	0	0	
			67	Sheep or goat sized	11	3	2	0	0	
			67	Sus domesticus (domestic pig)	4	0	1	0	0	
			67	Unidentified	5	0	0	0	0	
			91	Cattle or horse sized	8	0	1	0	0	
			91	Ovis/capra (sheep/goat)	2	2	2	0	0	

Context	Date	Type	Find no.	Taxon	No. of pieces	No. Cut	No. Gnawed	No. Burnt	No. Pathology	Comments
			91	Sheep or goat sized	4	0	0	0	0	
			91	Unidentified	1	0	0	0	0	
			93	Bos taurus (domestic cattle)	2	0	1	0	0	
			93	Cattle or horse sized	11	1	1	0	0	
			93	Ovis/Capra (sheep/goat)	4	0	1	0	0	
			93	Sheep or goat sized	9	1	1	0	0	
			93	Small sized mammal	1	0	0	0	0	
			93	Unidentified	1	0	0	0	0	
L7	Modern/ post-medieval	Graveyard soil	17	Bos taurus (domestic cattle)	1	0	0	0	0	
			17	Cattle or horse sized	5	0	0	0	0	
			17	Ovis/capra (sheep/goat)	3	1	0	0	0	
			17	Sheep or goat sized	2	0	1	0	0	
			17	Sus domesticus (domestic pig)	1	0	0	0	0	
			18	Sheep or goat sized	1	0	0	0	0	
L7/L8	Medieval/post- medieval/modern	Graveyard soil	17	Bos taurus (domestic cattle)	2	0	1	0	0	
			17	Cattle or horse sized	10	2	0	0	0	
			17	Sheep or goat sized	1	0	1	0	0	
L8	Medieval/ post-medieval	Graveyard soil	38	Bos taurus (domestic cattle)	8	2	1	0	0	
			38	Capreolus capreolus (European roe deer)	1	0	0	0	0	
			38	Cattle or horse sized	16	2	5	0	0	Oddly shaped radius and ulna fragments (fused).
			38	Ovis/capra (sheep/goat)	1	0	0	0	0	
			38	Sheep or goat sized	6	2	2	0	0	
			38	Small sized mammal	1	0	0	0	0	

Context	Date	Type	Find no.	Taxon	No. of pieces	No. Cut	No. Gnawed	No. Burnt	No. Pathology	Comments
			38	Sus domesticus (domestic pig)	1	0	0	0	0	
			38	Unidentified	12	0	0	0	0	
			86	Cattle or horse sized	2	0	0	0	0	
L9	Roman/medieval	Accumulation	31	Anser anser domesticus (domestic goose)	1	0	0	0	0	
			31	Bos taurus (domestic cattle)	5	0	0	0	0	
			31	Cattle or horse sized	8	2	3	0	0	Sawn vertebrae fragment.
			31	Equus caballus (horse)	1	0	0	0	0	
			31	Ovis/capra (sheep/goat)	1	0	0	0	0	
			31	Sheep or goat sized	2	0	1	0	0	
			31	Sus domesticus (domestic pig)	2	0	1	0	0	
L10	Medieval/post-medieval	Graveyard soil	19	Bos taurus (domestic cattle)	1	1	0	0	0	
			19	Cattle or horse sized	2	1	1	0	1	Rib fragment with localised swelling/inflammation
L13	Post-medieval	Graveyard soil	70	Aves (indeterminate species)	1	0	0	0	0	
			70	Bos taurus (domestic cattle)	18	4	4	0	0	
			70	Canis familiaris (dog)	1	0	0	0	0	
			70	Cattle or horse sized	35	4	7	0	0	Sawn rib.
			70	Cervus elaphus (red deer)	1	0	0	0	0	
			70	Equus caballus (horse)	3	1	0	0	0	Sawn distal metapodial. Working?
			70	Ovis/capra (sheep/goat)	22	2	8	0	0	
			70	Sheep or goat sized	45	9	9	0	0	
			70	Small sized mammal	3	0	0	0	0	Cat?
			70	Sus domesticus (domestic pig)	7	0	0	0	0	
			70	Unidentified	8	0	0	0	0	

Context	Date	Type	Find no.	Taxon	No. of pieces	No. Cut	No. Gnawed	No. Burnt	No. Pathology	Comments
			85	Cattle or horse sized	2	2	0	0	0	Sawn diaphysis fragments.
			85	Sheep or goat sized	4	1	1	0	0	
			109	Bos taurus (domestic cattle)	3	0	2	0	0	
			109	Cattle or horse sized	3	0	0	0	0	
			109	Ovis/capra (sheep/goat)	2	0	1	0	0	
			109	Sheep or goat sized	2	0	0	0	0	
			109	Unidentified	1	0	0	0	0	
			167	Sheep or goat sized	3	0	0	0	0	
L14	Post-medieval	Graveyard soil	89	Cattle or horse sized	2	1	2	0	0	
			89	Ovis/capra (sheep/goat)	1	0	1	0	0	
			89	Sus domesticus (domestic pig)	1	1	0	0	0	
L16	Medieval/ post-medieval	Graveyard soil	92	Sus domesticus (domestic pig)	1	0	1	0	0	
L24	Roman, post-Roman or post-medieval	Mortar spread	100	Bos taurus (domestic cattle)	1	1	0	0	0	
			100	Sus domesticus (domestic pig)	1	0	1	0	0	
L32	Medieval/post-medieval	? Dark earth	136	Bos taurus (domestic cattle)	4	1	2	0	0	Oblique chop through anterior of distal joint.
			136	Cattle or horse sized	5	1	0	0	0	
L35b	Medieval/ post-medieval	Graveyard soil	113	Bos taurus (domestic cattle)	1	0	0	0	0	
			113	Cattle or horse sized	1	1	0	0	0	
			113	Sheep or goat sized	1	0	0	0	0	
L60	Post-medieval	Graveyard soil	163	Bos taurus (domestic cattle)	1	1	0	0	0	
			163	Cattle or horse sized	1	0	0	0	0	
			163	Unidentified	1	0	0	0	0	
	Unstratified	Unstratified	90	Unidentified	8	0	0	0	0	

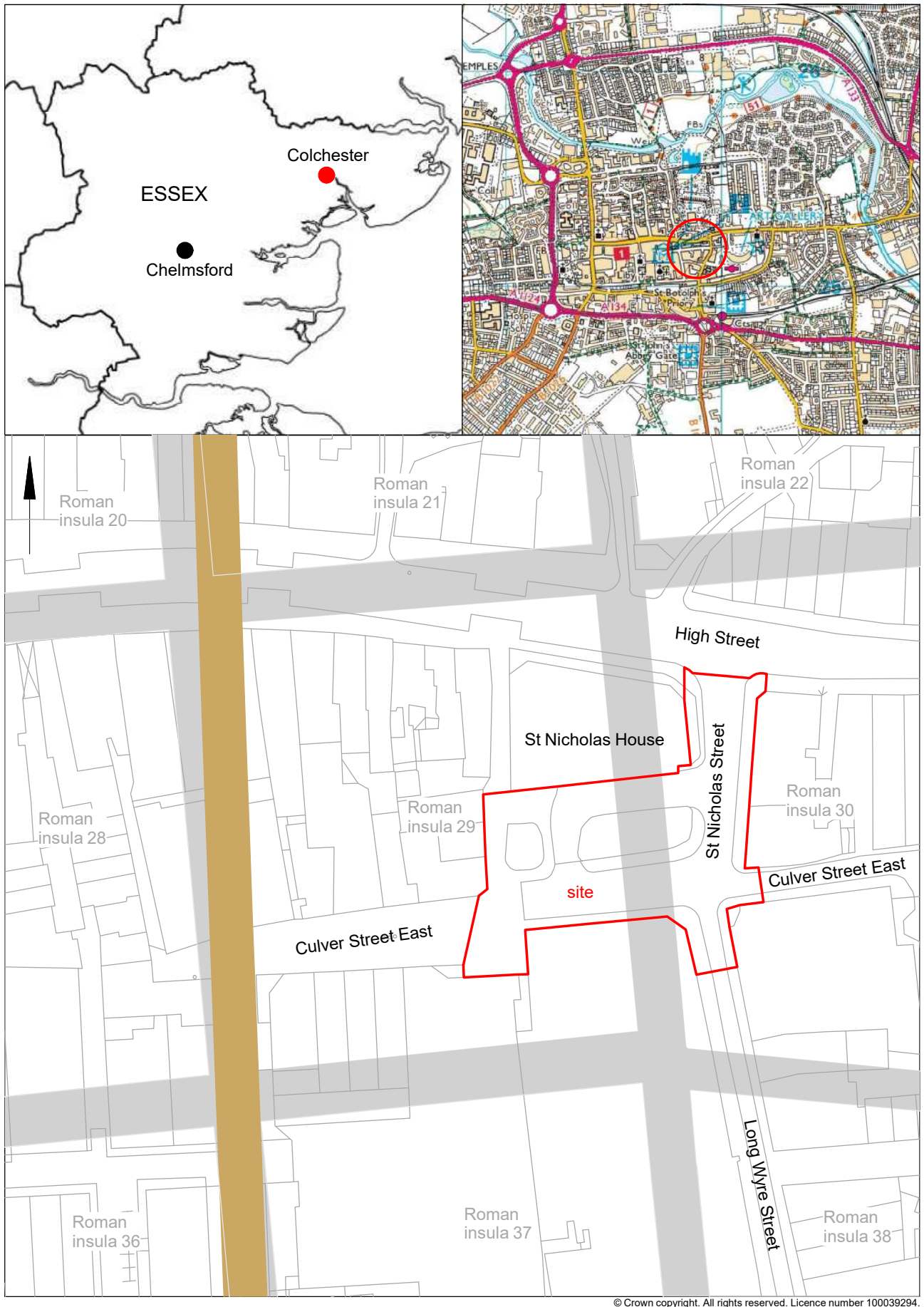
Context	Date	Type	Find no.	Taxon	No. of pieces	No. Cut	No. Gnawed	No. Burnt	No. Pathology	Comments
			110	Bos taurus (domestic cattle)	3	0	1	0	0	
			110	Cattle or horse sized	2	1	0	0	0	
			110	Ovis/capra (sheep/goat)	3	1	0	0	0	
			137	Cattle or horse sized	3	1	1	0	0	
			137	Sheep or goat sized	6	2	1	0	0	
			137	Unidentified	5	0	0	0	0	
			142	Cattle or horse sized	9	1	0	0	0	Femur or humerus shaft with both proximal and distal ends sawn off.
			173	Cattle or horse sized	3	0	1	0	0	
			173	Sheep or goat sized	1	0	1	0	0	
			174	Cattle or horse sized	2	0	2	0	0	
			174	Sheep or goat sized	3	0	0	0	0	
			174	Unidentified	1	0	0	0	0	
		Total			837	116	171	1	1	

Quantification of assemblage by context

Context	Date	Interpretation	No. of pieces	Surface erosion	Discolouration (generally darker)	Weight (kg)
U/S	Unstratified	Unstratified	49			0.801
F1	Medieval/post-medieval	Inhumation burial	5	Moderate	Mixed discolouration	0.056
F2	Post-medieval	Burial chamber	3	Moderate	Mild discolouration	0.112
F11	Post-medieval, backfilled c 1955	Soakaway	1	Slight	Consistent natural colour	0.034
F20	Post-medieval	Burial chamber	24	Slight to severe	Consistent natural colour to mild discolouration	0.286
F25	Post-medieval	Metalling/Metalled surface	18	Severe	Moderate to strong	1.512

Context	Date	Interpretation	No. of pieces	Surface erosion	Discolouration (generally darker)	Weight (kg)
F26	Post-medieval	?Pit/pits	7	Moderate	Moderate	0.388
F27	Medieval/post-medieval	Inhumation burial	9	Moderate	Mixed	0.051
F28	Medieval/post-medieval	Inhumation burial	11	Mixed	Mixed	0.118
F30	Post-medieval, 1824	Inhumation burial	16	Moderate	Mild	0.192
F31	Post-medieval	Pit	4	Severe	Strong	0.07
F32	Post-medieval	Possible pit	6	Slight	Natural colour	0.104
F33	Medieval/post-medieval	Inhumation burial	26	Moderate	Mixed	0.183
F34	Medieval	Robber trench	1	Moderate	Strong	0.002
F35	Post-medieval	Pit	8	Severe	Moderate	0.076
F36	Medieval	Pit	5	Moderate	Moderate	0.038
F37	Medieval/post-medieval	Inhumation burial	10	Moderate	Natural colour	0.108
F38	Medieval/post-medieval	Inhumation burial	8	Mixed	Mixed	0.076
F39	Medieval/post-medieval	Inhumation burial	11	Slight to moderate	Mild	0.12
F40	Medieval/post-medieval	Inhumation burial	5	Mixed	Mixed	0.023
F41	Medieval/post-medieval	Inhumation burial	4	Moderate	Mild	0.034
F45	Medieval/post-medieval	Inhumation burial	5	Mixed	Mixed	0.102
F63	Post-medieval	Inhumation burial	10	Moderate	Mild	0.12
F65	Medieval/post-medieval	Inhumation burial	2	Moderate	Mild	0.148
F74	Post-medieval	Inhumation burial	1	Moderate	Natural colour	0.01
L07	Modern/post-medieval	Graveyard soil	13	Moderate	Mild	0.268
L07/L08	Medieval/post-medieval/modern	Graveyard soil	13	Moderate	Mild	0.192
L08	Medieval/post-medieval	Graveyard soil	48	Mixed	Mixed	0.836
L09	Roman/medieval	Accumulation	20	Moderate to severe	Mixed	0.69
L10	Medieval/ post-medieval	Graveyard soil	3	Moderate	Moderate	0.2
L13	Post-medieval	Graveyard soil	164	Mixed	Mixed	3.763
L14	Post-medieval	Graveyard soil	4	Moderate	Moderate	0.088
L16	Medieval/post-medieval	Graveyard soil	1	Slight	Natural colour	0.024

Context	Date	Interpretation	No. of pieces	Surface erosion	Discolouration (generally darker)	Weight (kg)
L24	Roman, post-Roman or post-medieval	Mortar spread	2	Mixed	Mixed	0.214
L27	Roman	Dump	4	Moderate to severe	Mixed	0.188
L2b	Post-medieval/modern	Graveyard soil	311	Mixed	Mixed	8.184
L32	Medieval/post-medieval	? Dark earth	9	Moderate to severe	Strong	0.954
L33	Late Roman/ early post-Roman	Demolition horizon	26	Moderate to severe	Strong	0.978
L35b	Medieval/post-medieval	Graveyard soil	3	Moderate	Natural colour	0.052
L41	?Medieval	Fill of robber trench	1	Severe	Moderate	0.032
L58/59	Roman	Boudican demolition debris/dirty sand	1	Moderate	Mild	0.296
L60	Post-medieval	Graveyard soil	3	Moderate	Moderate	0.096
L64	Roman	Levelling/dump layer	1	Slight	Mild	0.034
	Total		876			21.853



© Crown copyright. All rights reserved. Licence number 100039294.

Fig 1 Site location.

Roman street layout with numbered insulas
 Legionary fortress ditch

0
0
50 m

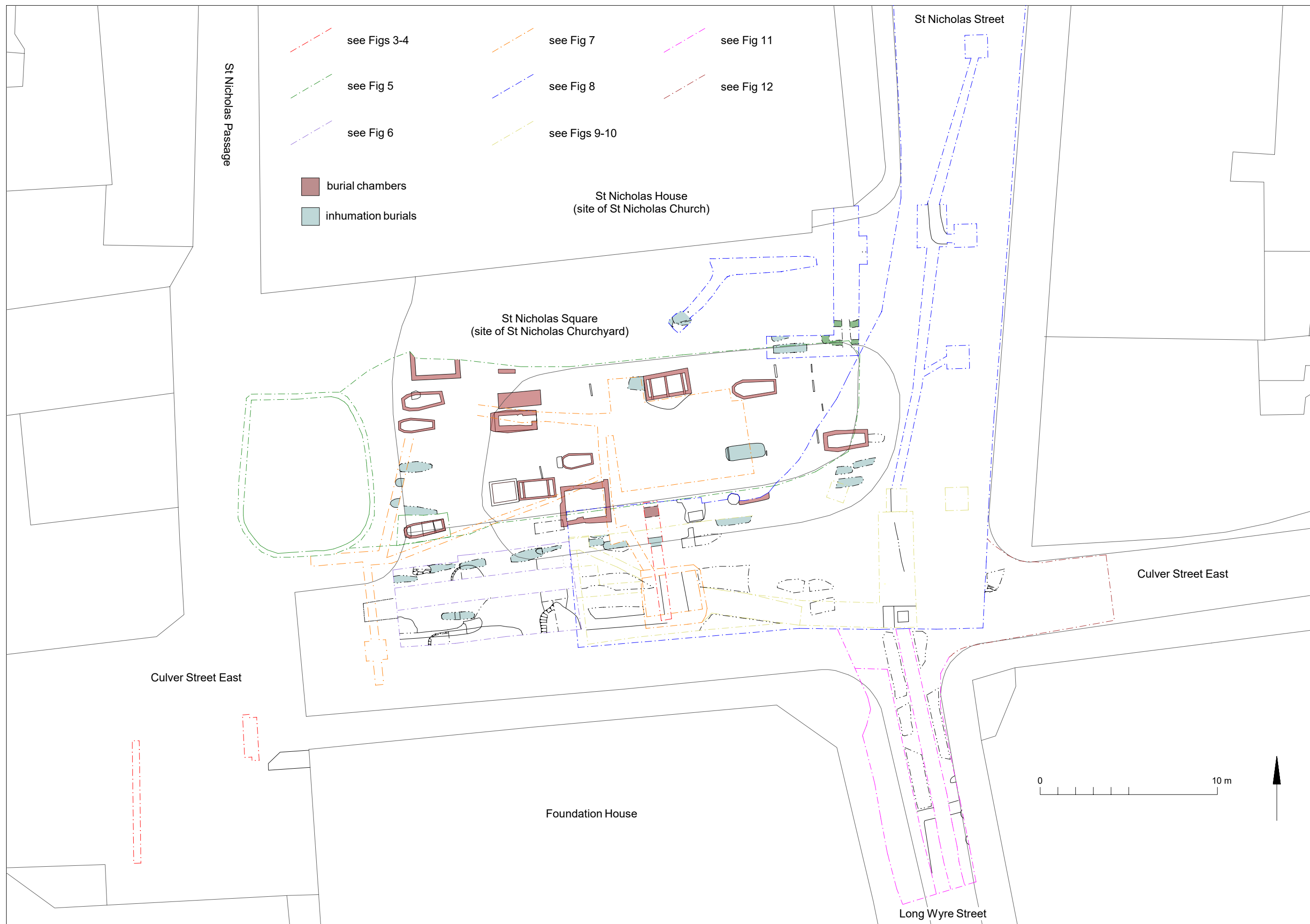
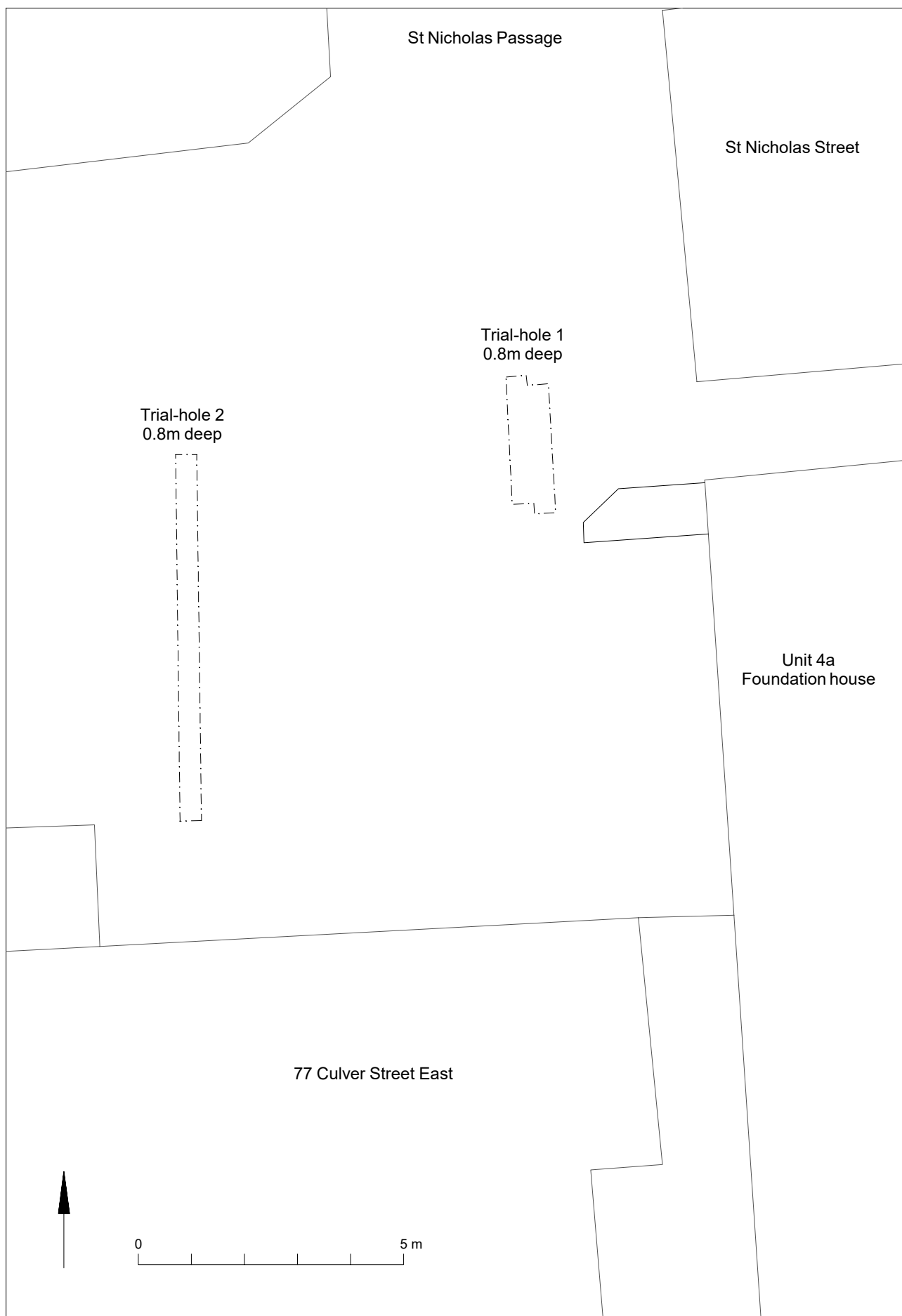
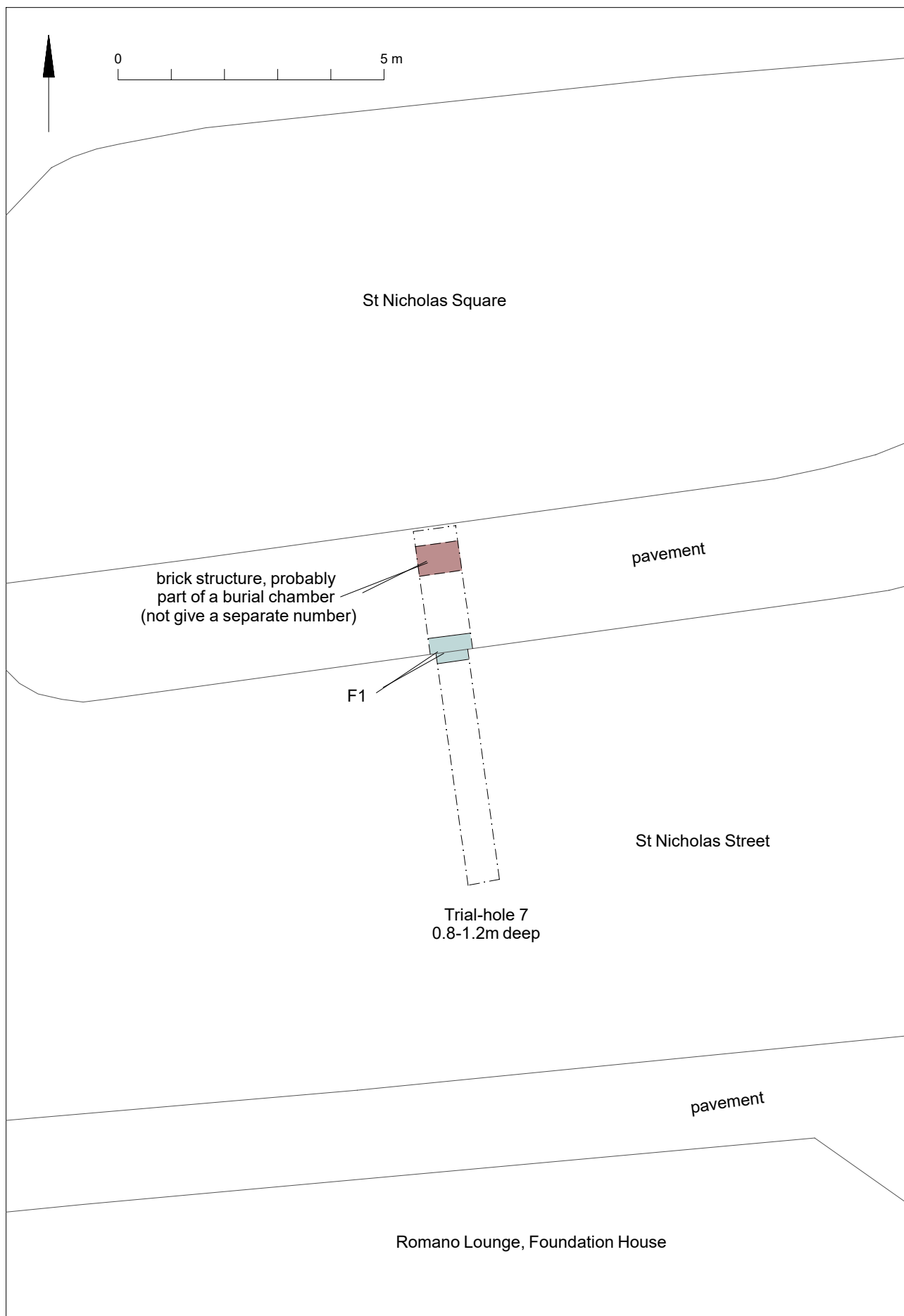


Fig 2 Combined plan of all the groundworks.



© Crown copyright. All rights reserved. Licence number 100039294.

Fig 3 Results: Trial-holes 1 and 2.



© Crown copyright. All rights reserved. Licence number 100039294.

Fig 4 Results: Trial-hole 7.

burial chambers
 inhumation burials

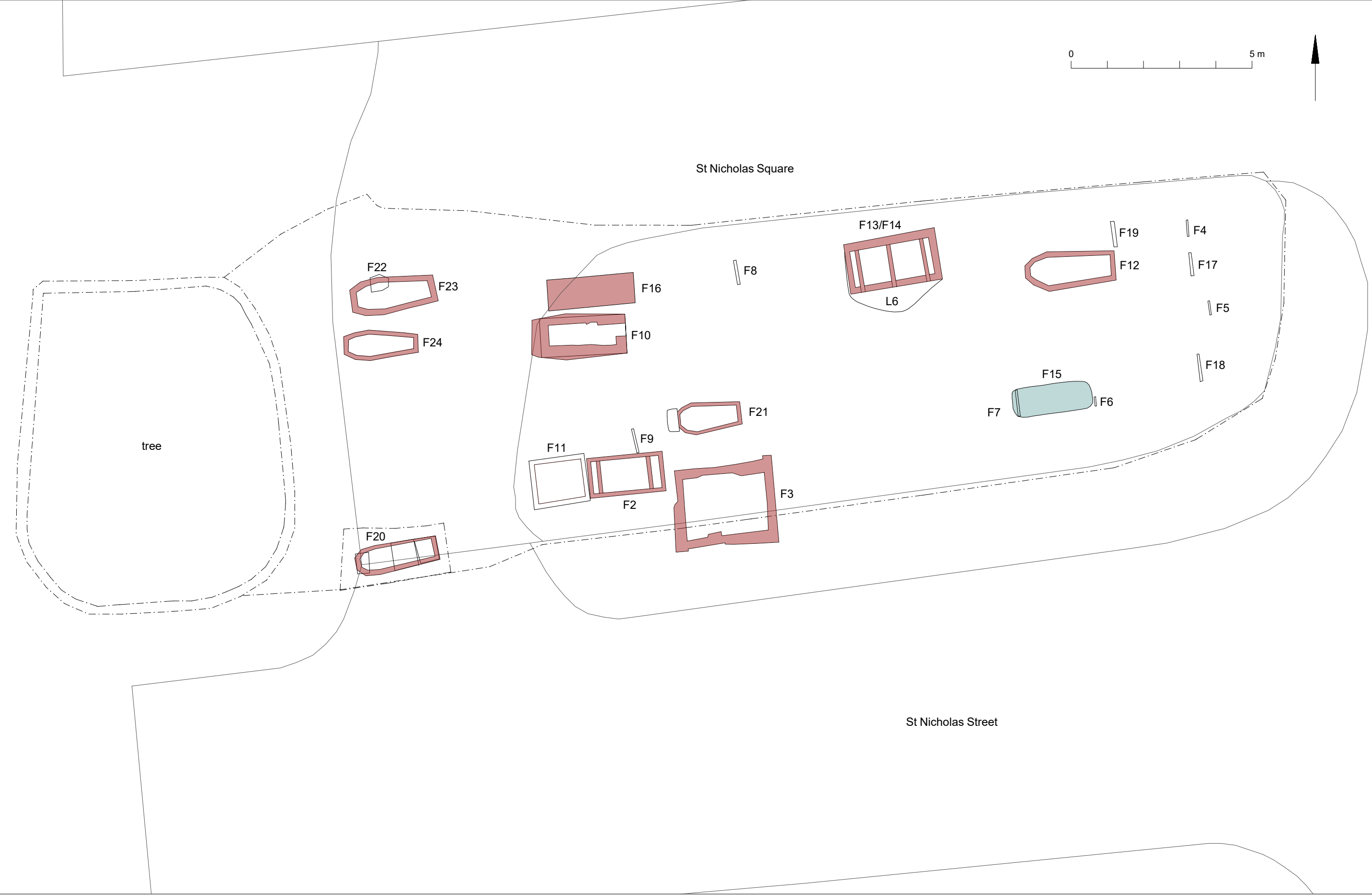


Fig 5 Results: St Nicholas Square ground reduction phase 1.

■ burial chambers ■ inhumation burials

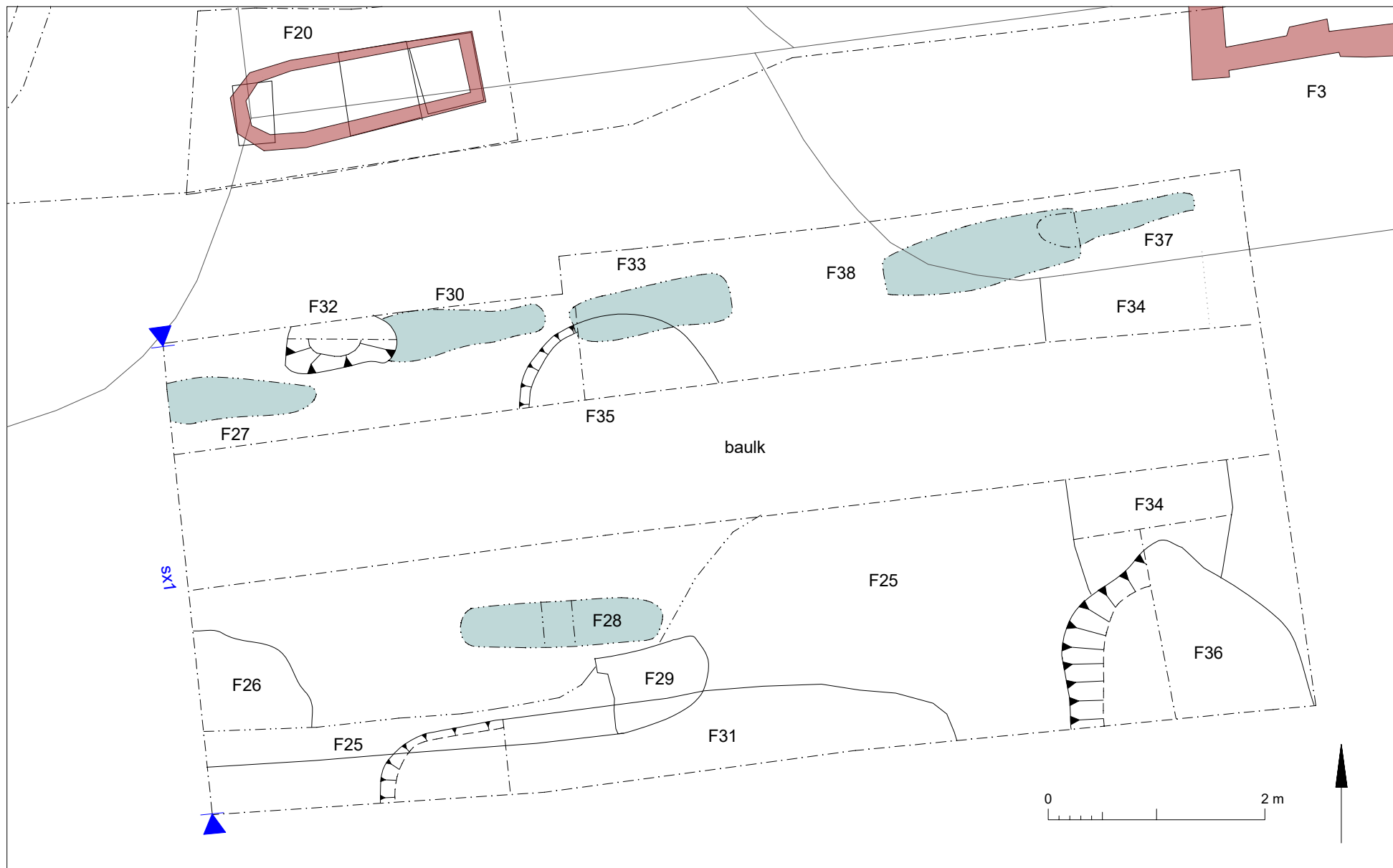


Fig 6 Results: Tree-pit 2.

■ burial chambers

■ inhumation burials



Fig 7 Results: Tree-pit 1, St Nicholas Square ground reduction phase 2, services and the inspection chamber.
(st = service trench; m = manhole)

burial chambers
 inhumation burials
 stone structure

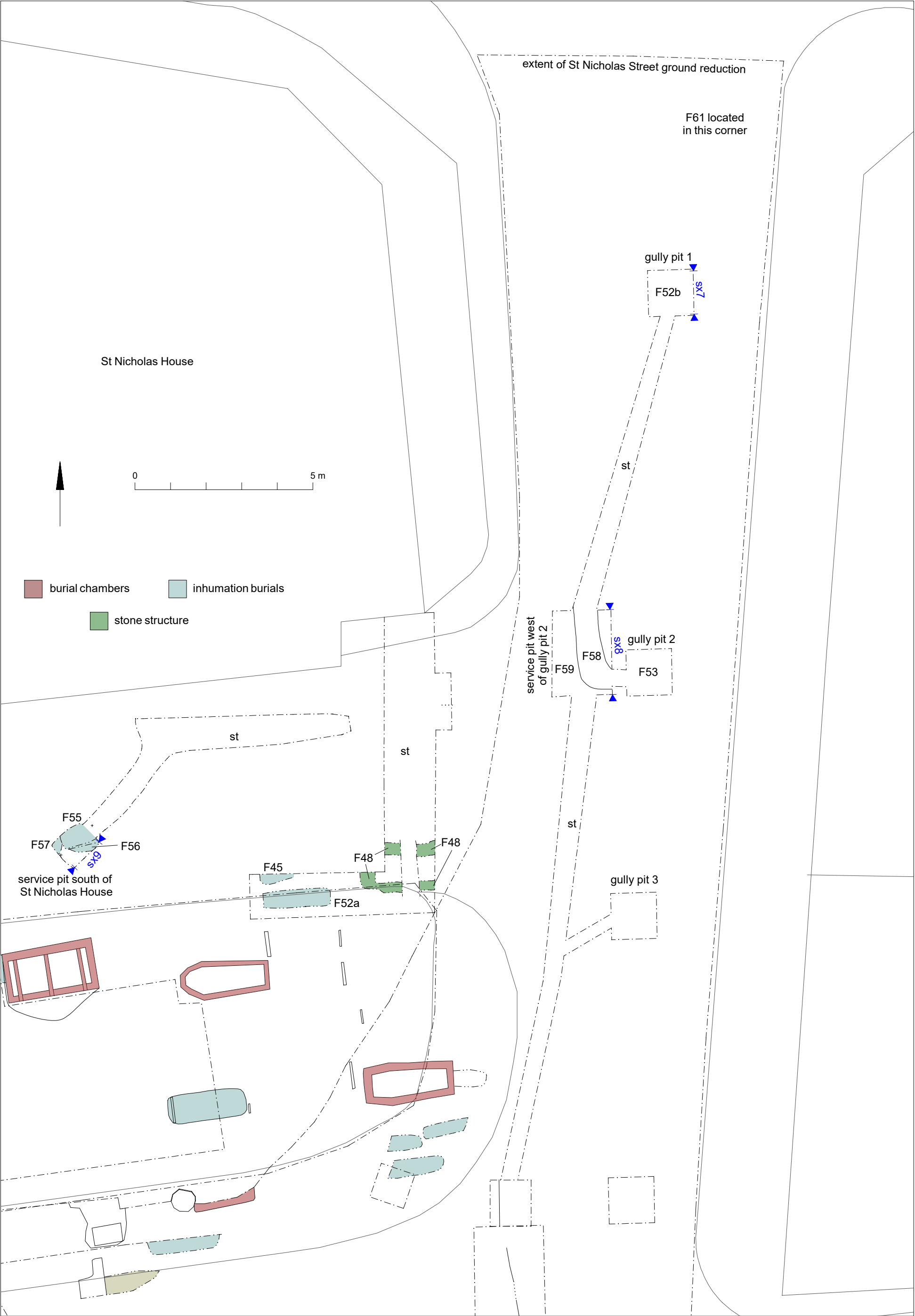


Fig 8 Results: Service trench and pit to the south of St Nicholas House, services through St Nicholas Street and the St Nicholas Street ground reduction. (st = service trench; m = manhole)

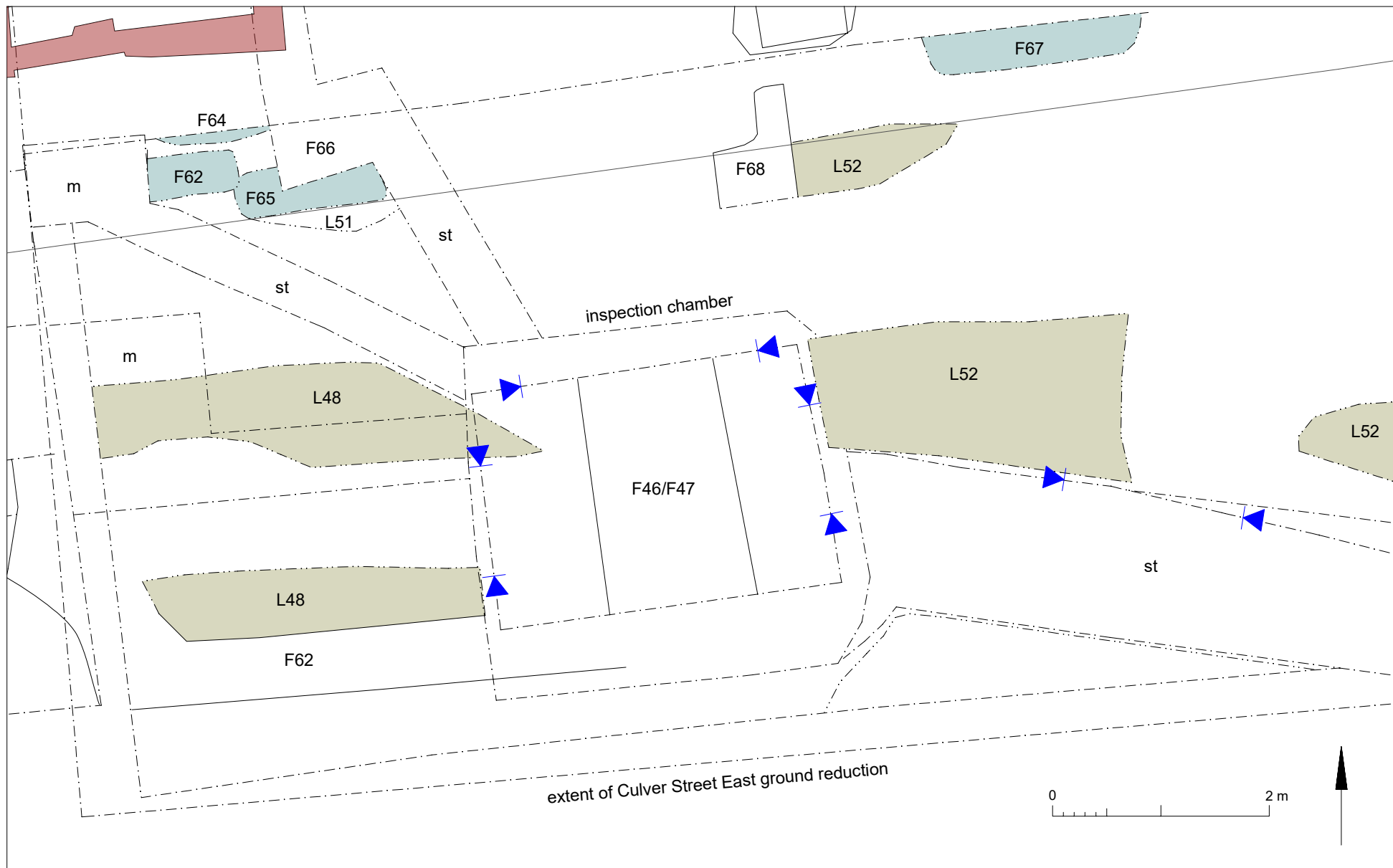
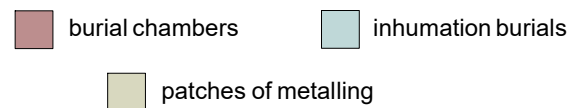


Fig 9 Results: Culver Street East ground reduction around the inspection chamber.
(st = service trench; m = manhole)



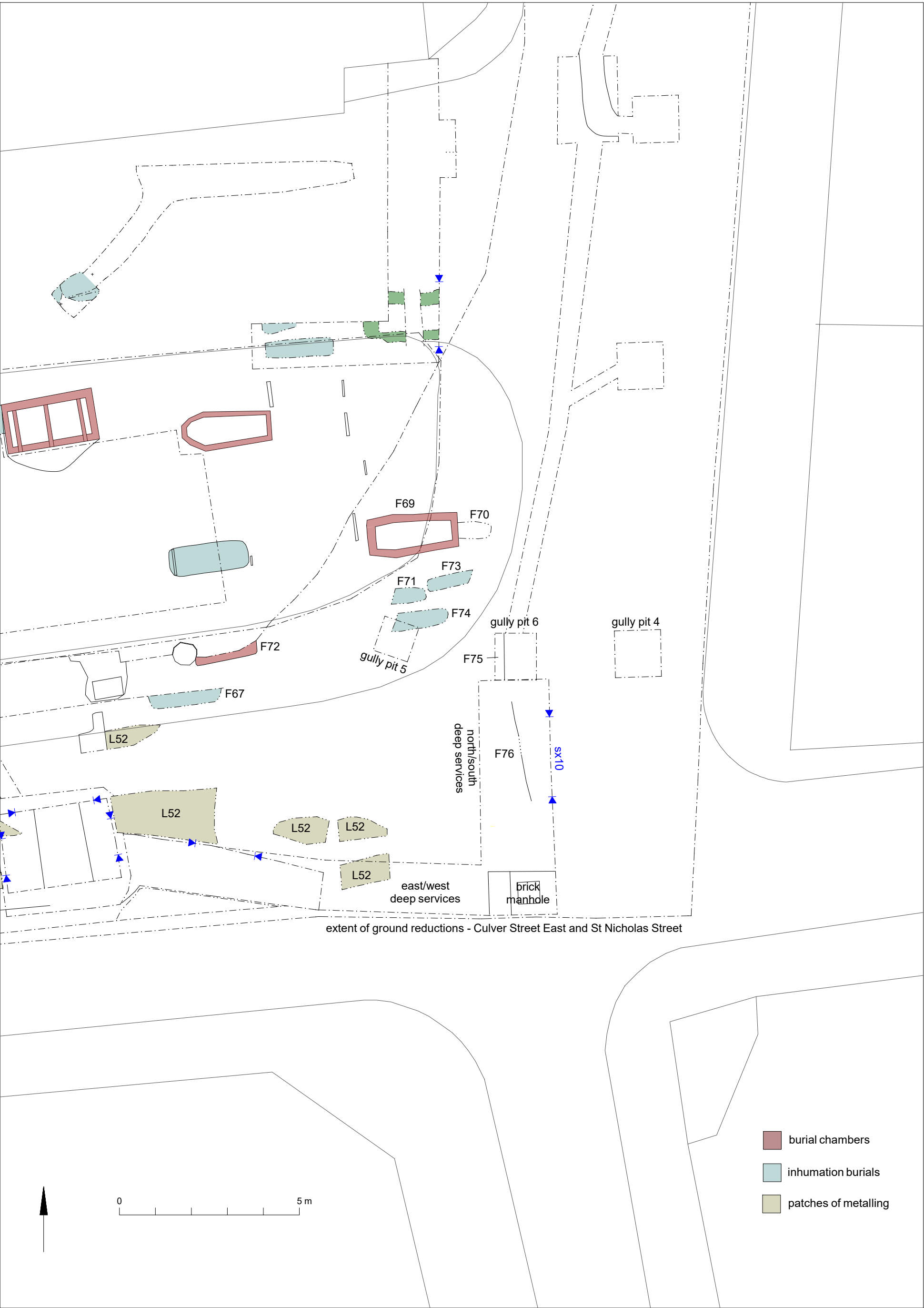


Fig 10 Results: Ground reduction on corner of Culver Street East and St Nicholas Street.



Fig 11 Results: Long Wyre Street ground reduction.



Fig 12 Results: far eastern end of the Culver Street East ground reduction.

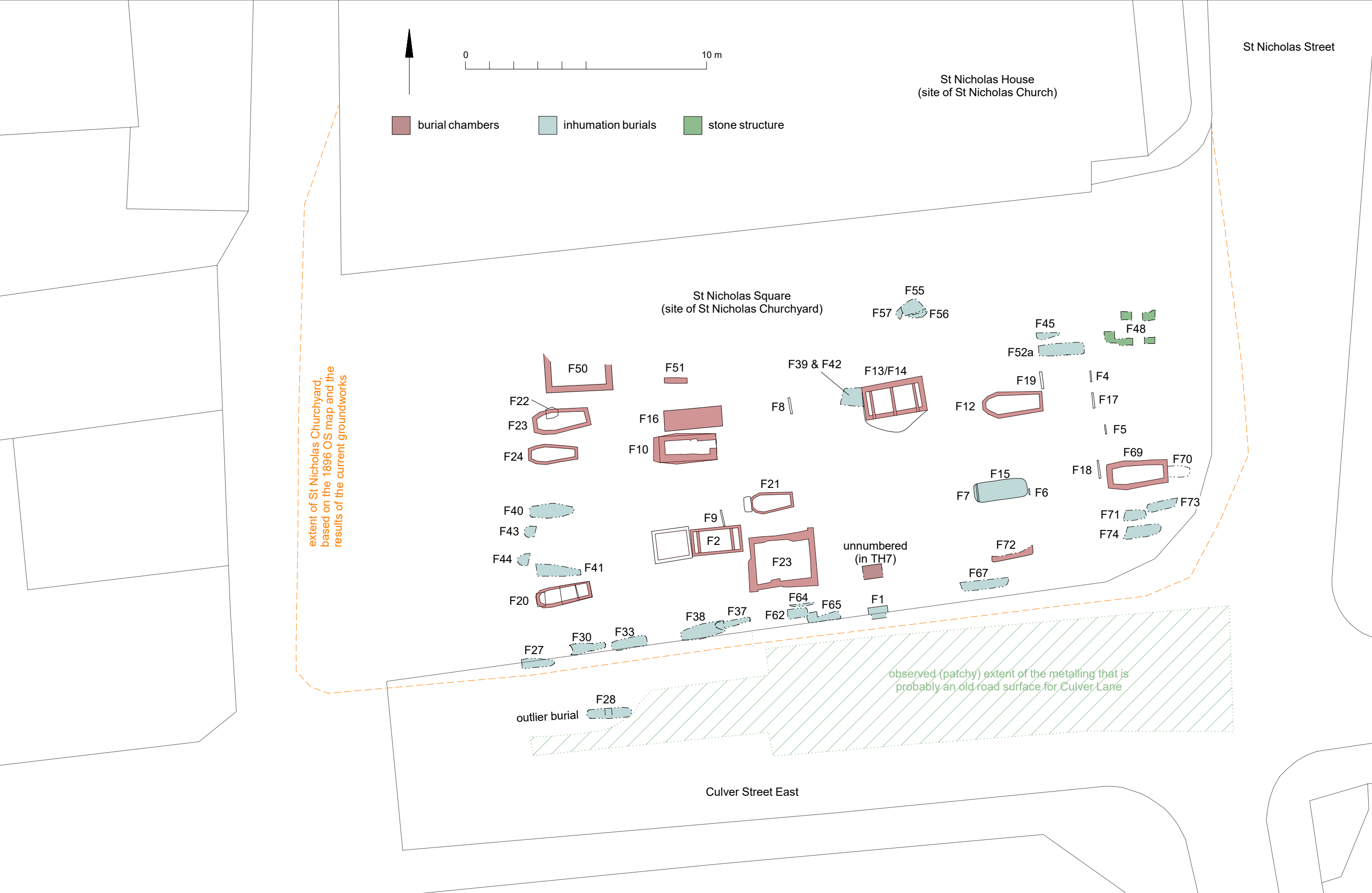
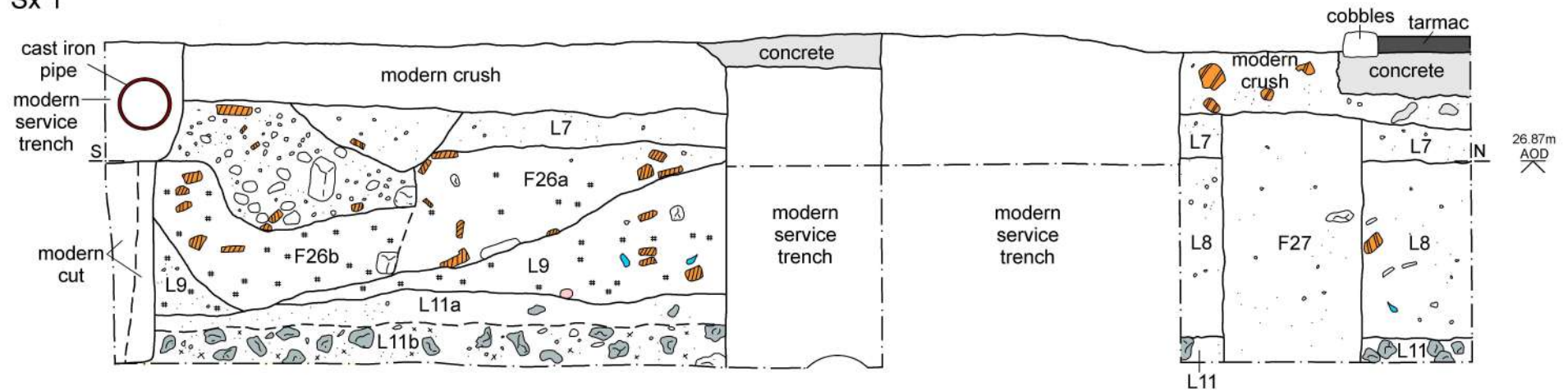


Fig 13 Combined plan of St Nicholas Churchyard.



Fig 14 Combined plan of the Roman remains.

Sx 1



Sx 2

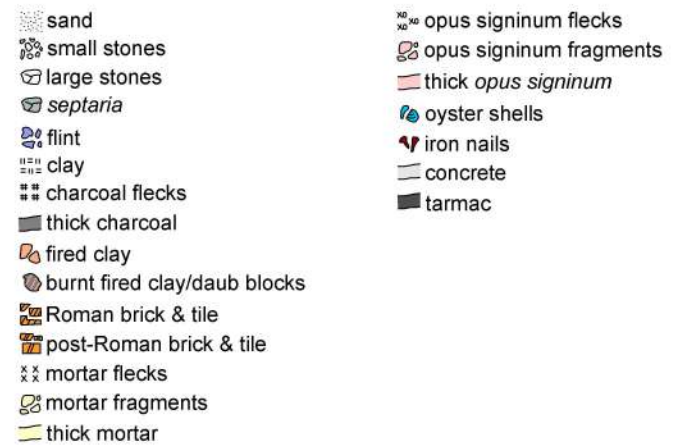
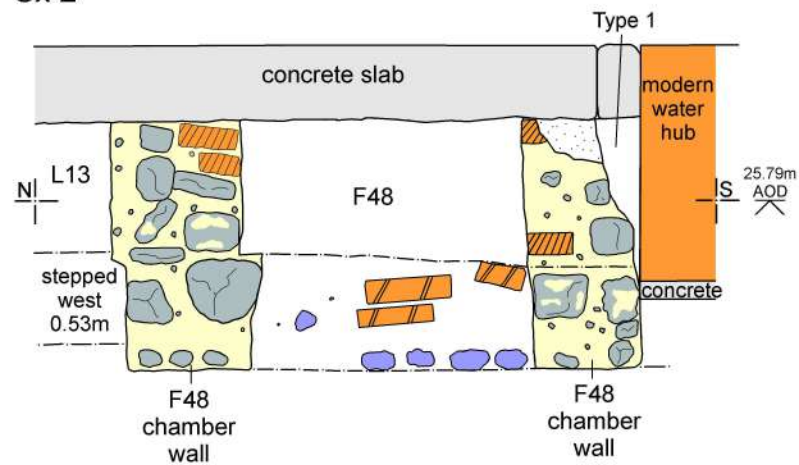


Fig 15 Sections.

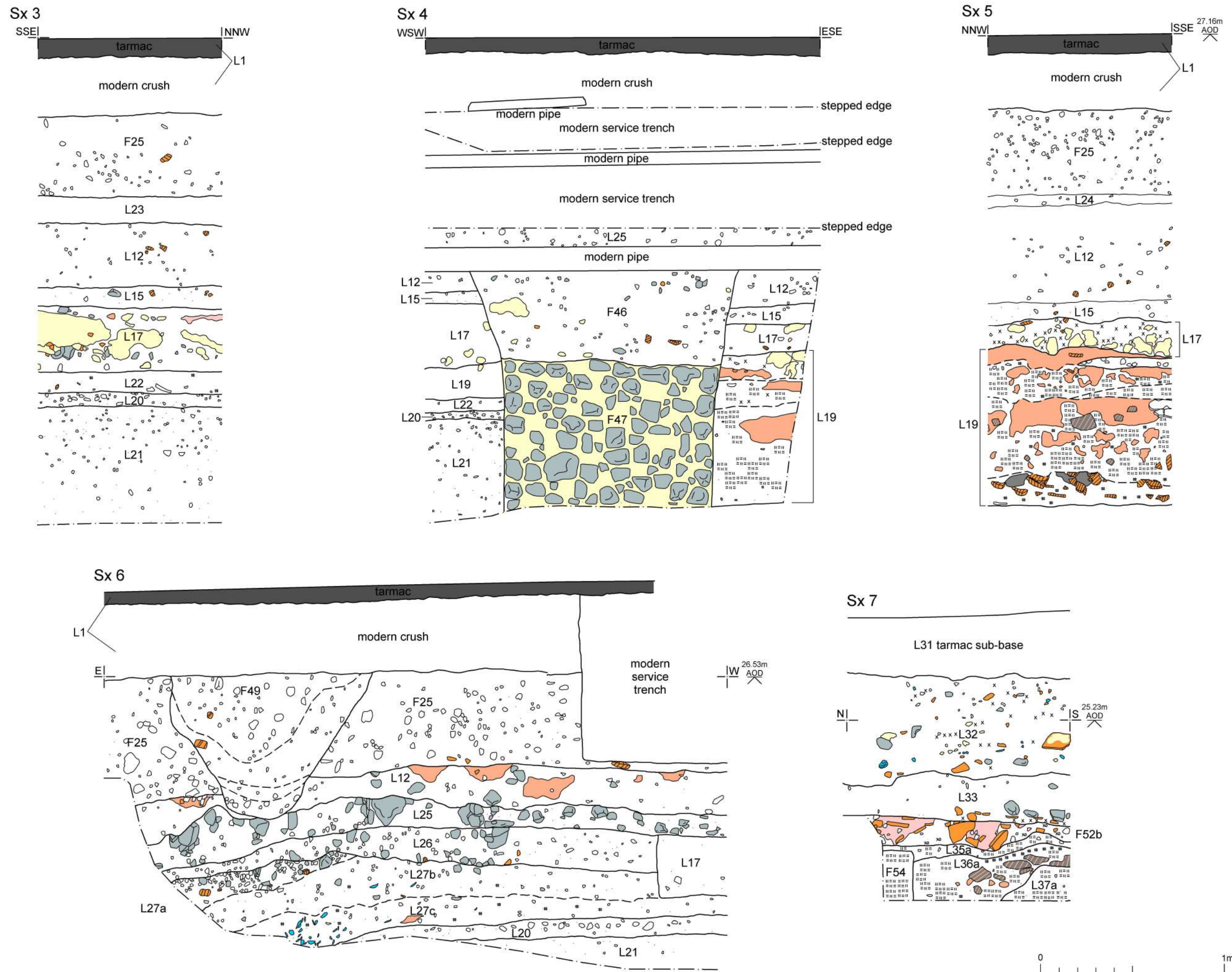
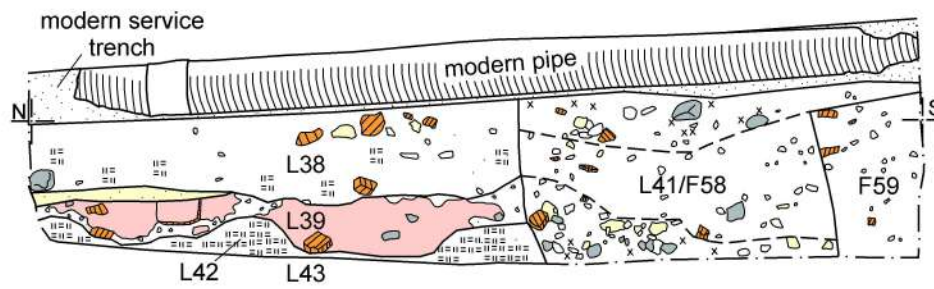
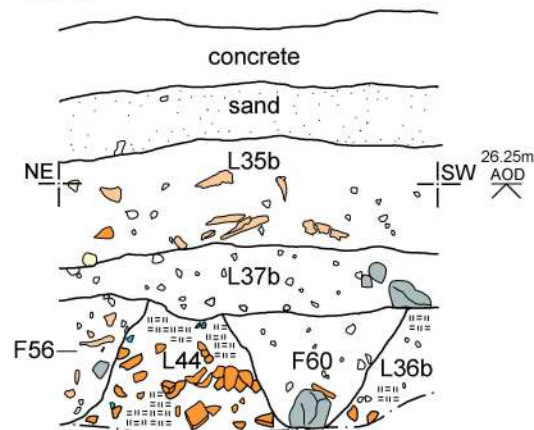


Fig 16 Sections.

Sx 8



Sx 9



Sx 10

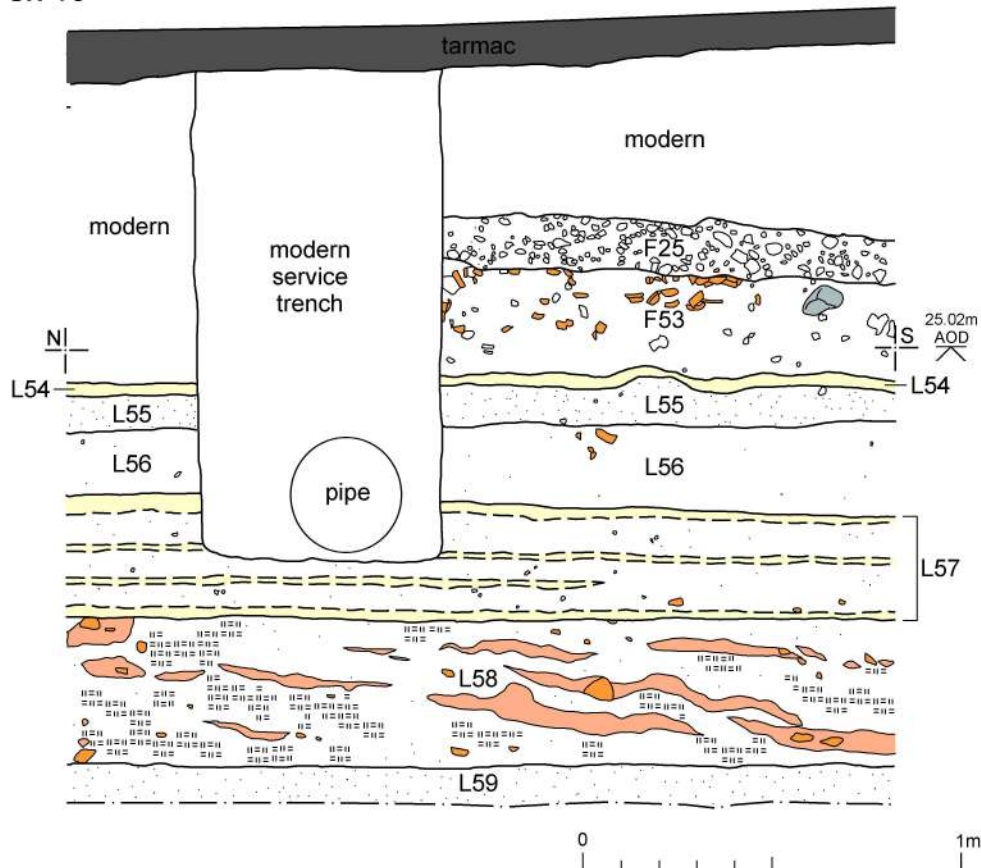


Fig 17 Sections.

Sx 11

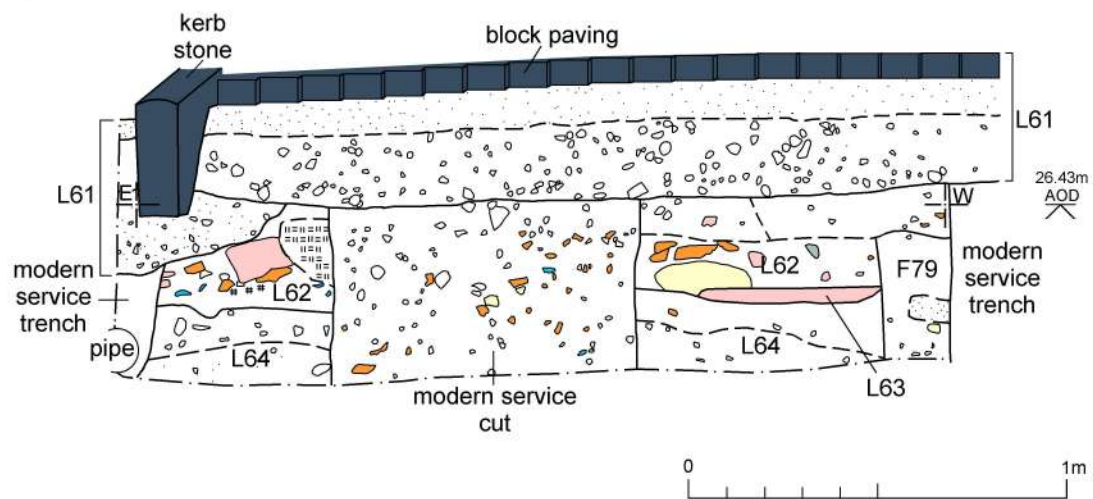


Fig 18 Sections.

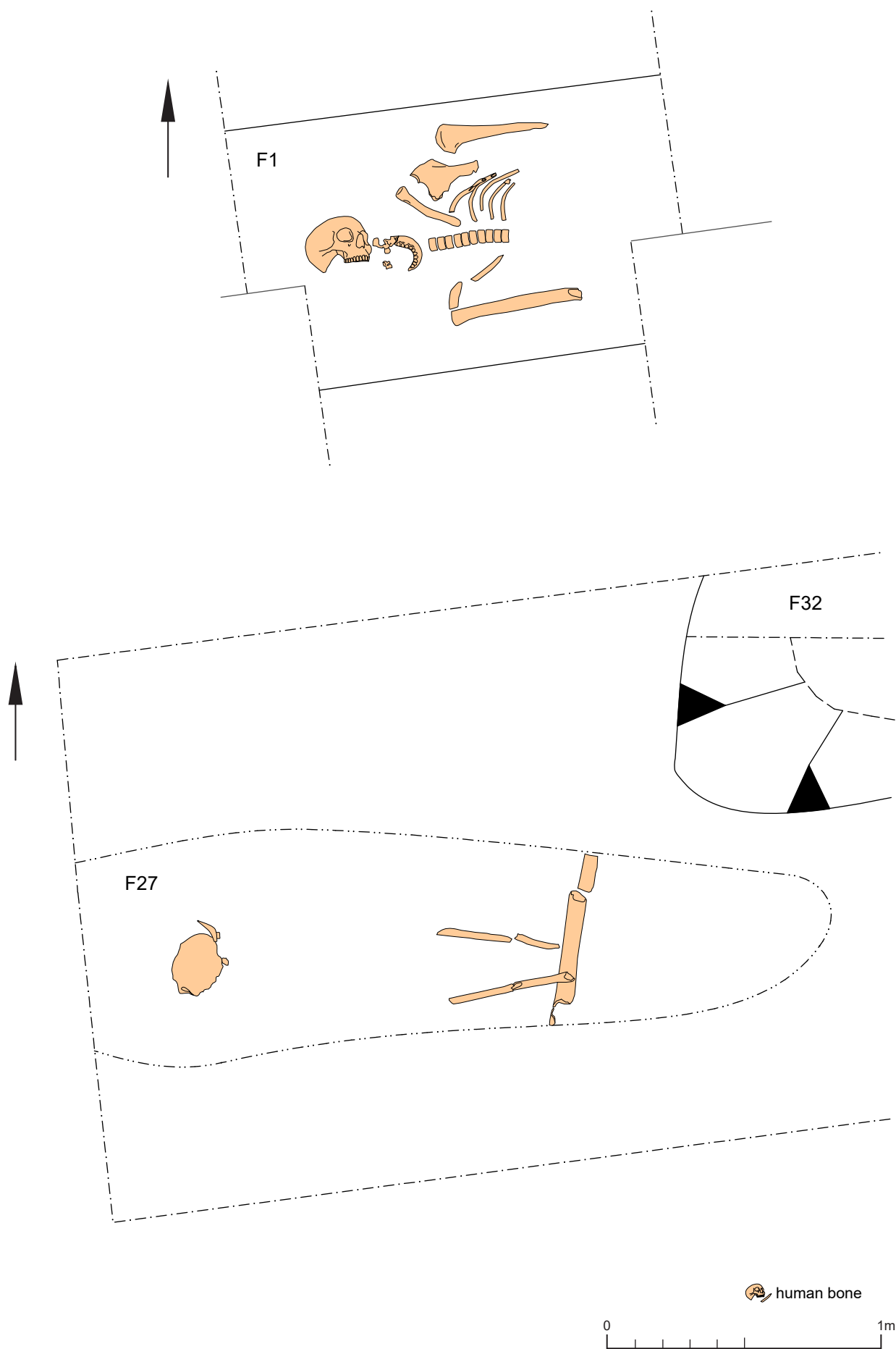


Fig 19 Burial plans.

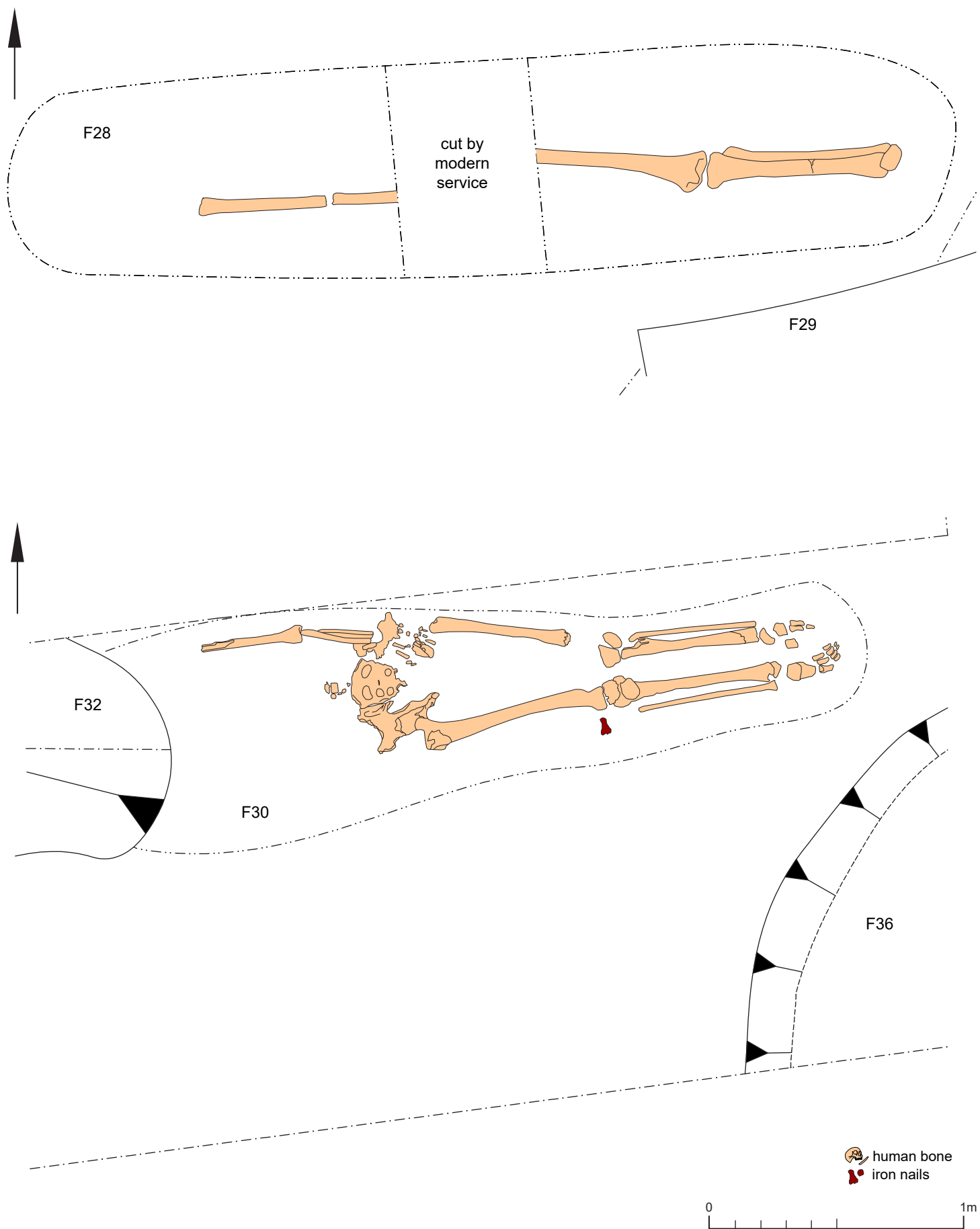


Fig 20 Burial plans.

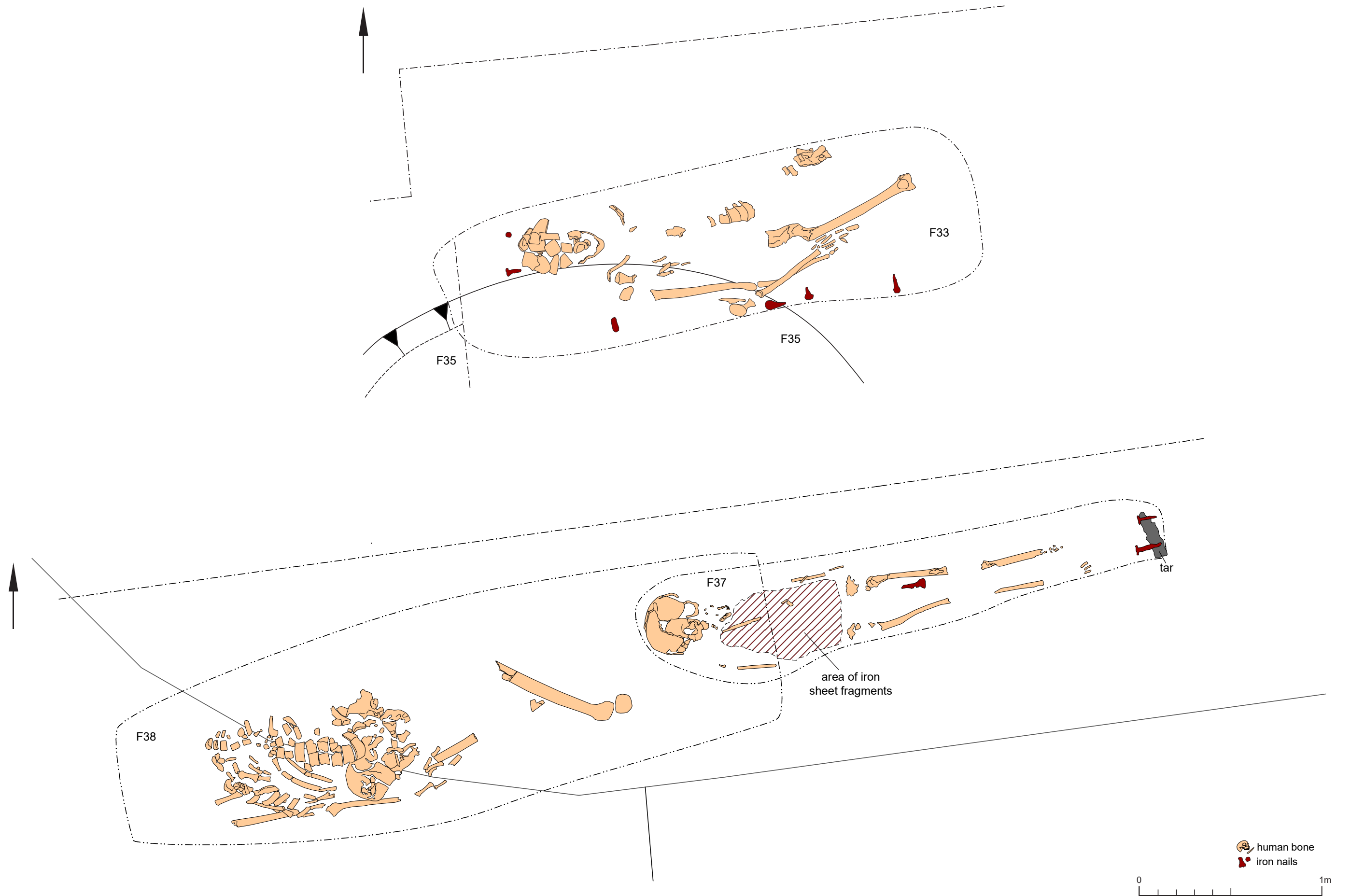
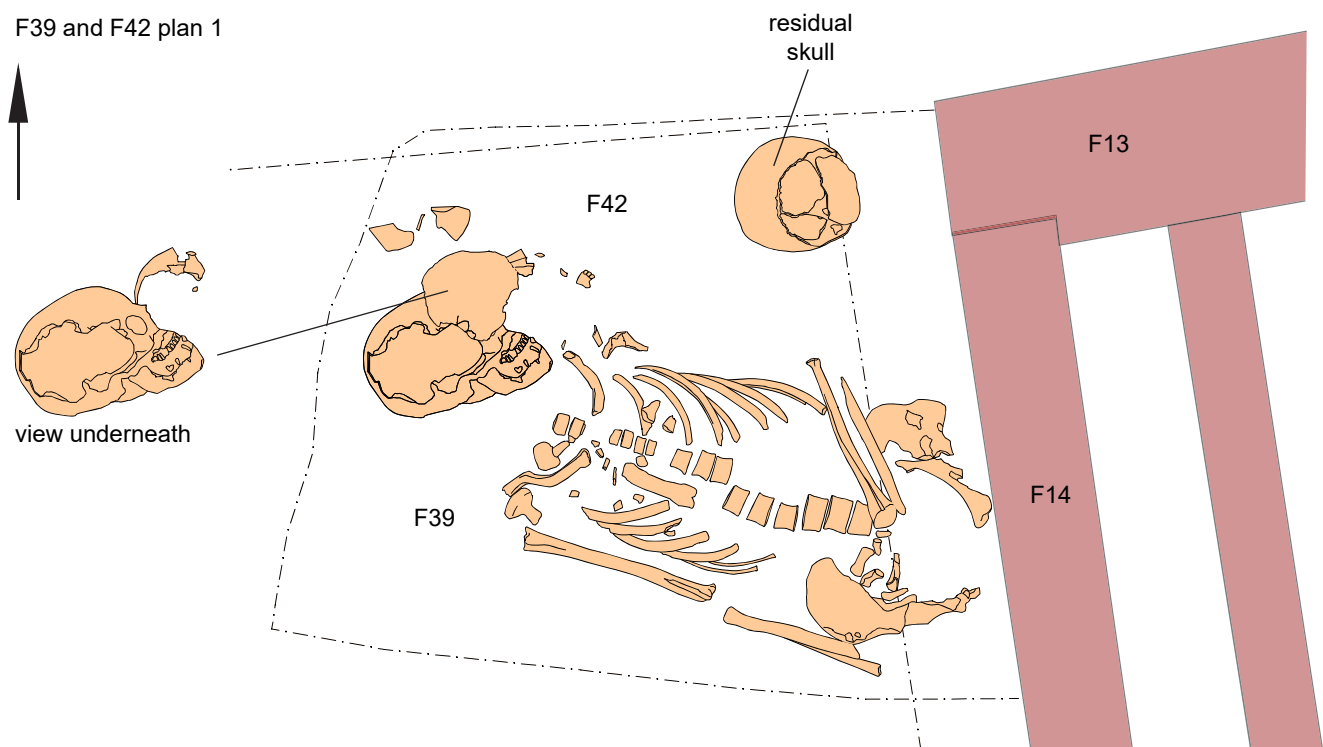


Fig 21 Burial plans.



F39 and F42 overlay

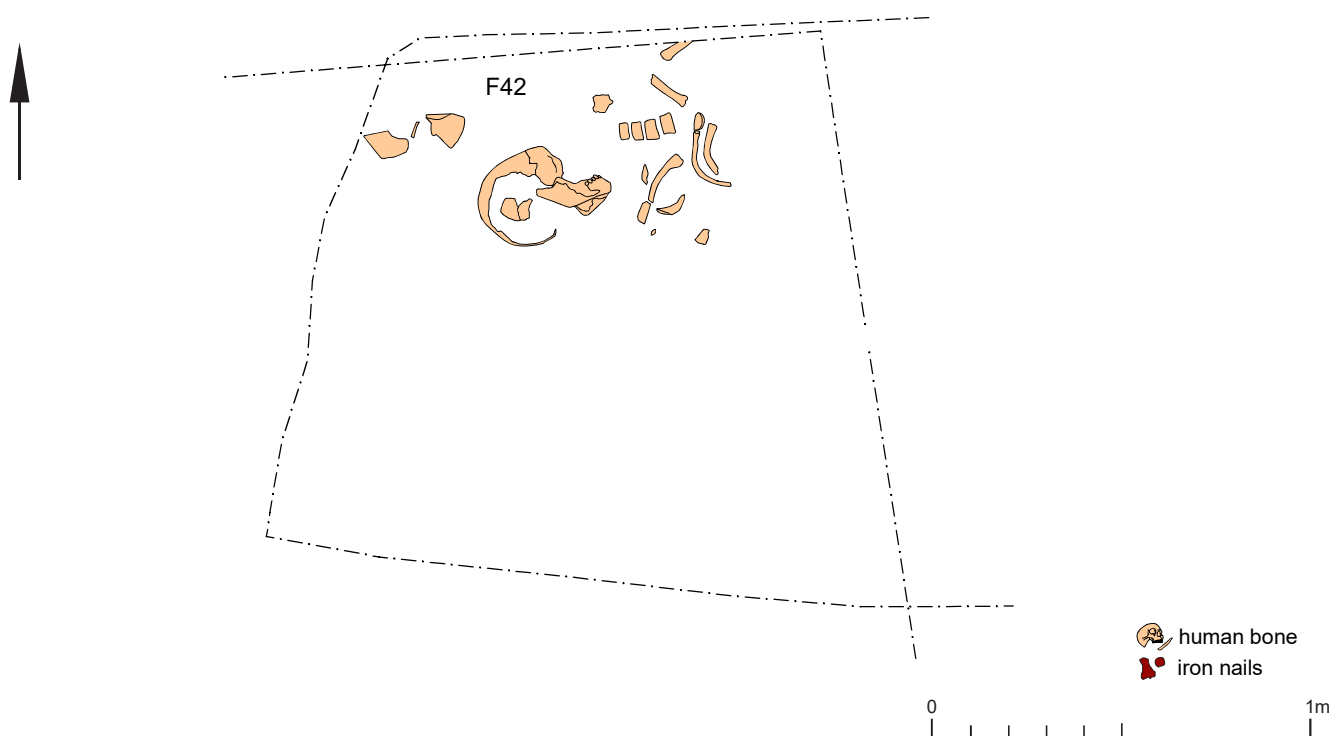


Fig 22 Burial plans.

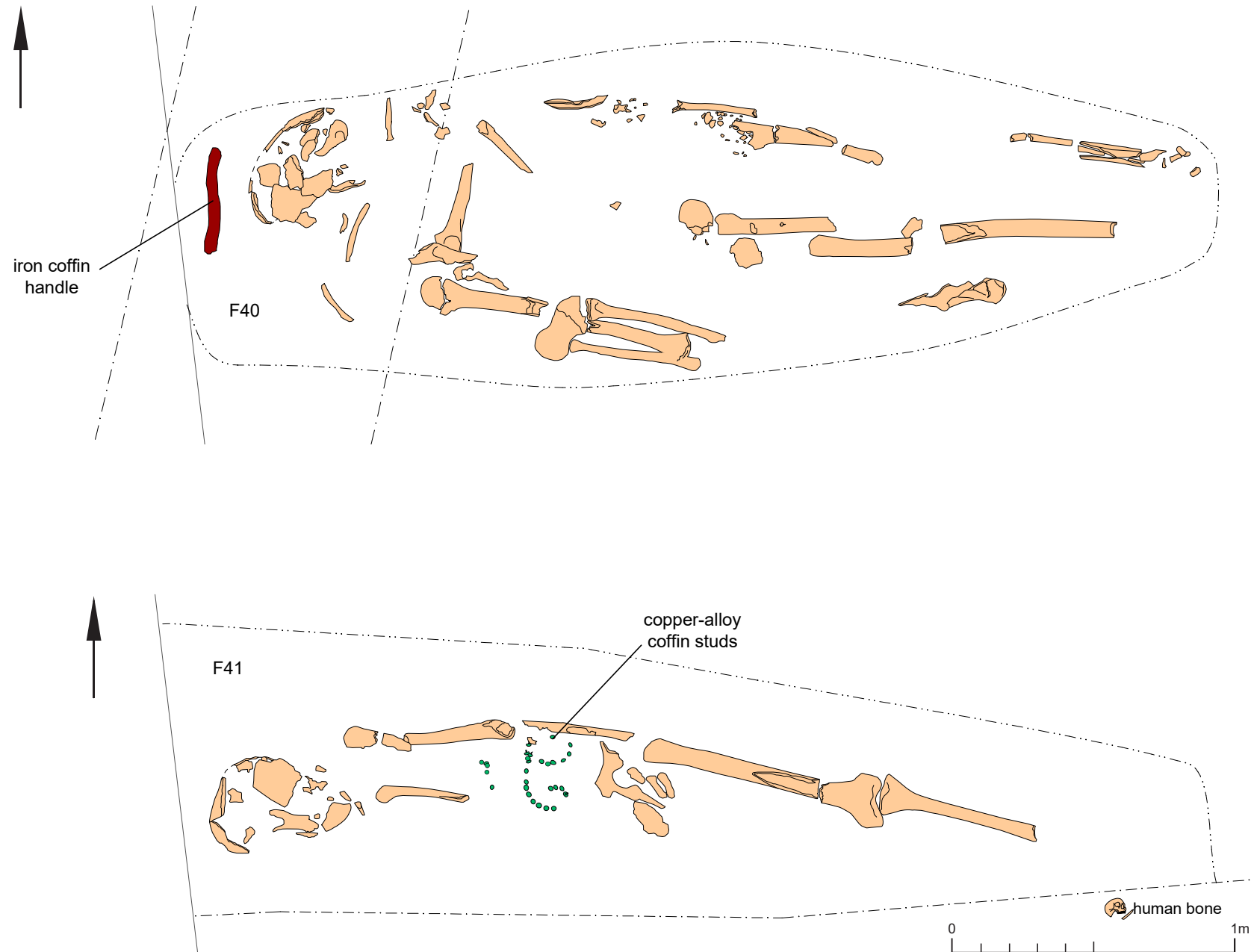


Fig 23 Burial plans.

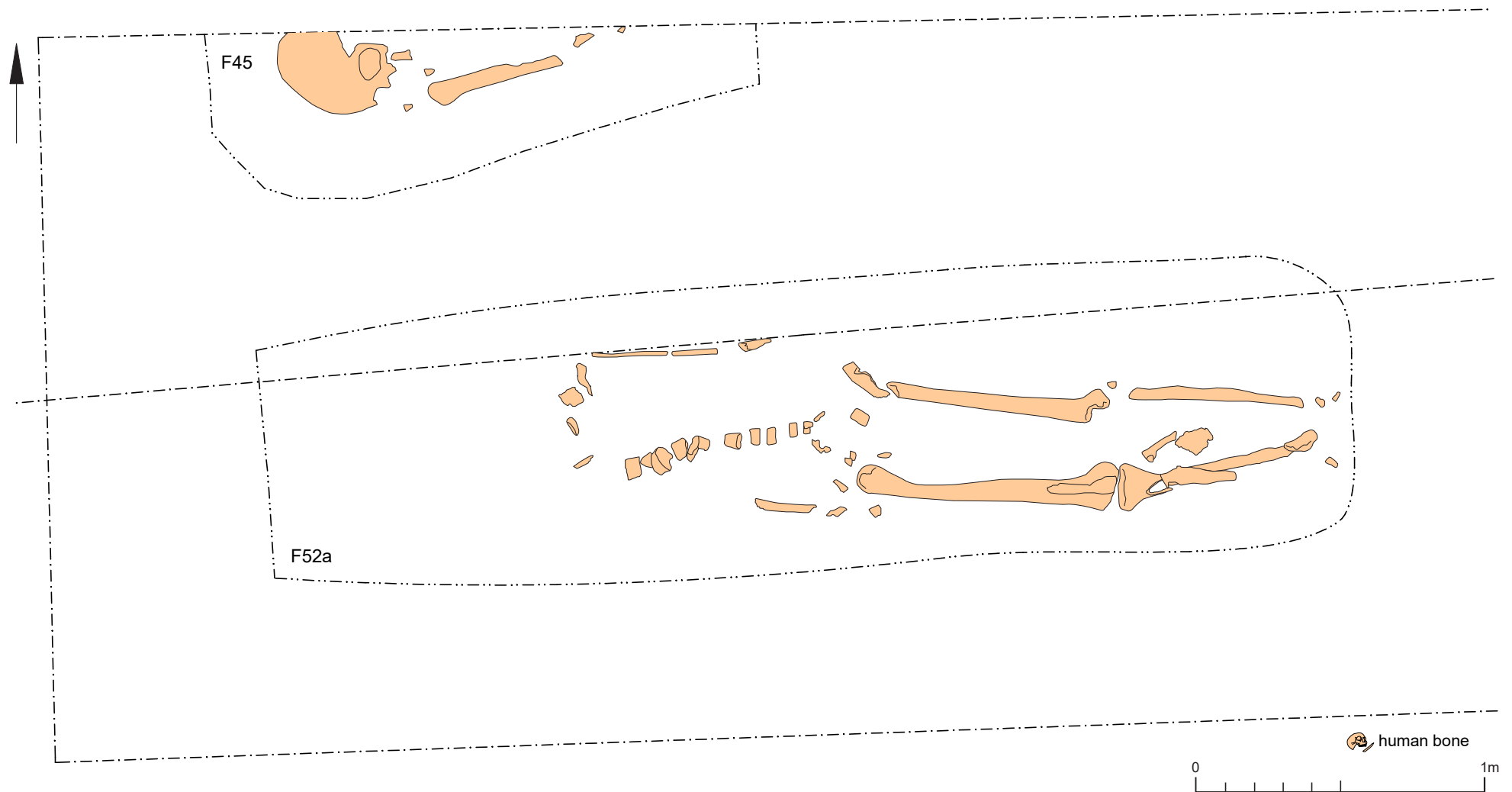


Fig 24 Burial plans.

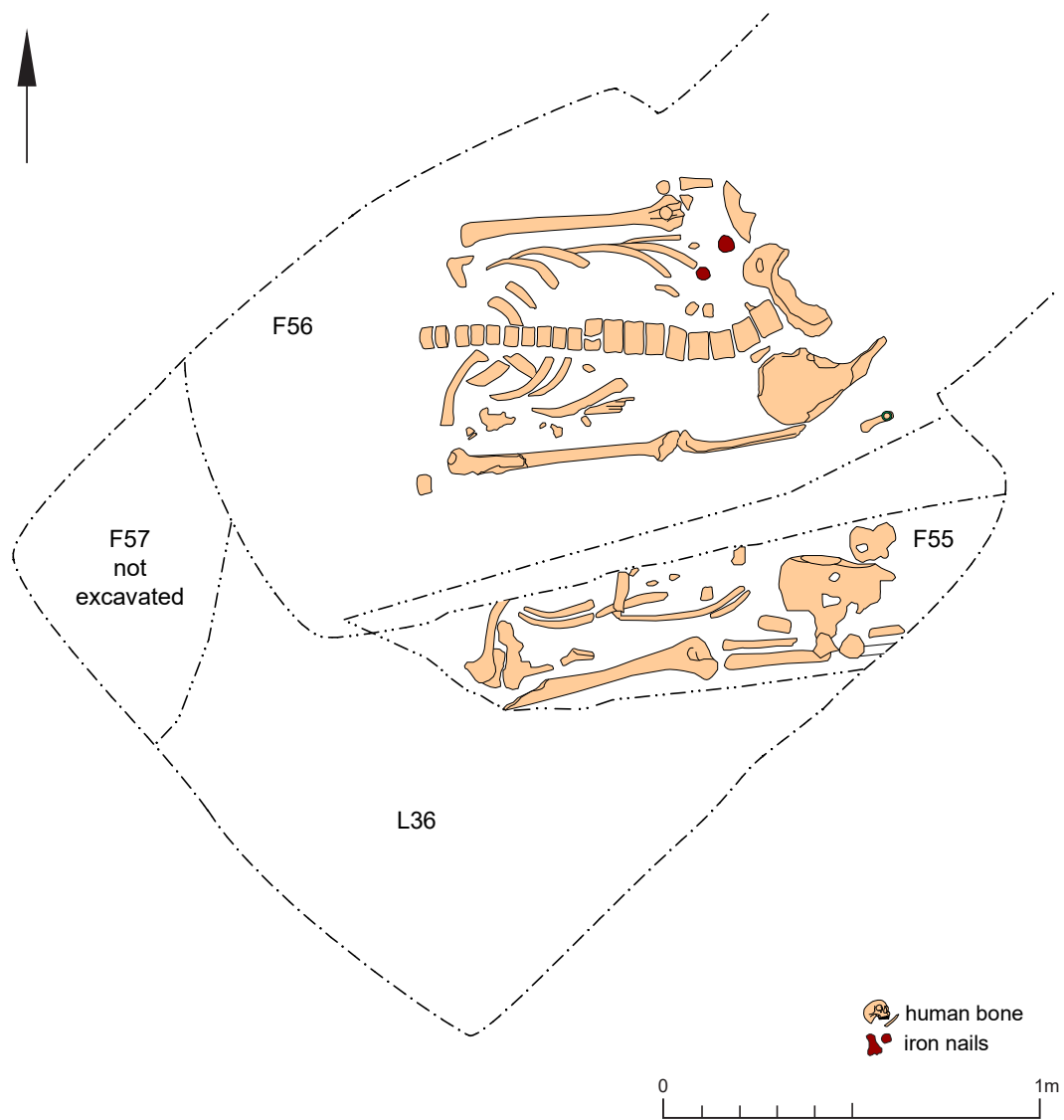


Fig 25 Burial plans.

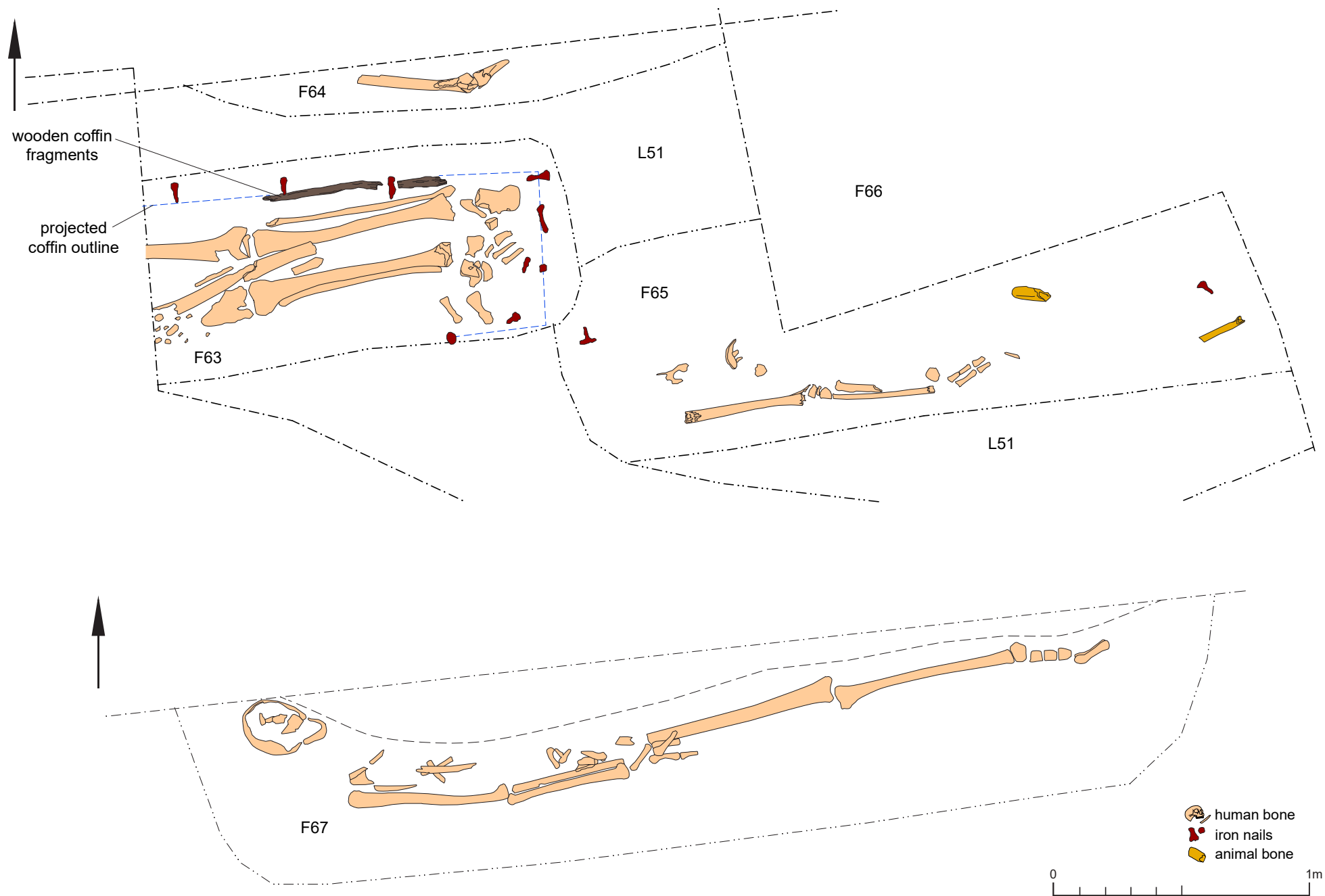


Fig 26 Burial plans.

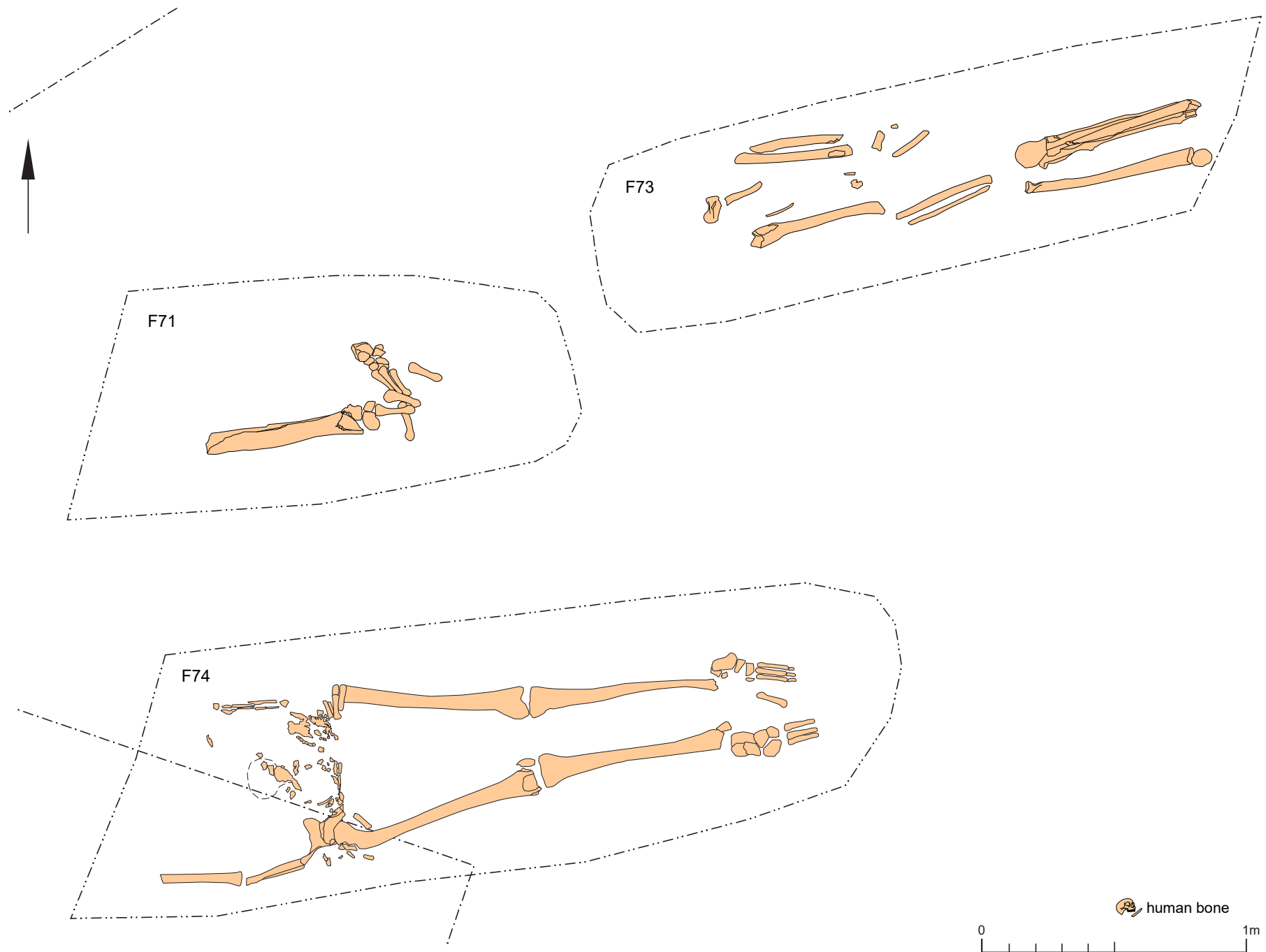


Fig 27 Burial plans.

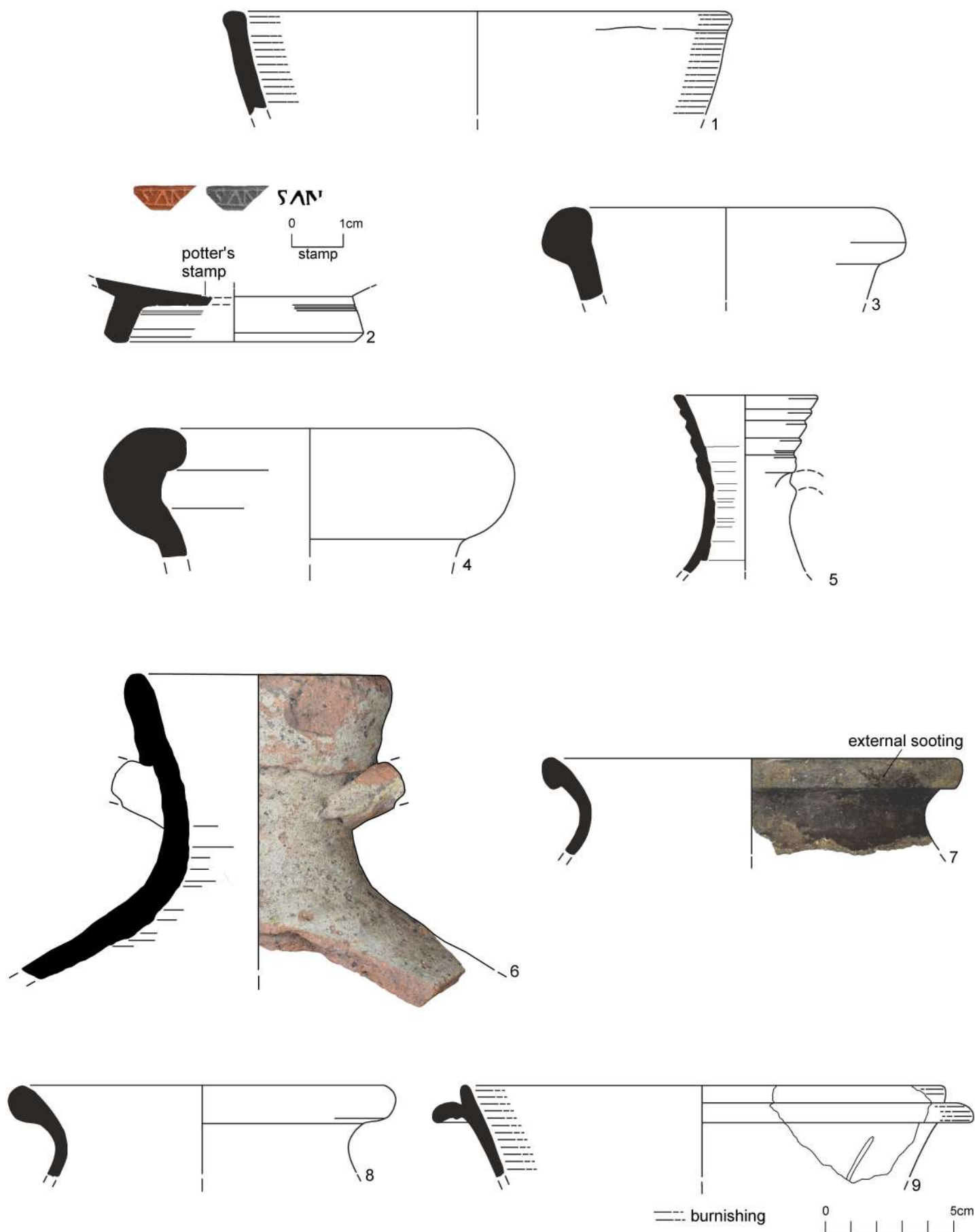


Fig 28 Roman pottery: Gallo-Belgic platter from L12 (1), Lezoux dish from L8 (2), Gauloise 4 amphora from L12 (3), Spanish Baetican Dressel 20 amphora from L12 (4), CAM 154 flagon from L27 (5), African Mauretania Dressel 30/Keay 1 amphora from L33 (6), CAM 532 jar from L33 (7), CAM ?299 jar from L33 (8) and a CAM 305B bowl from L33 (9).

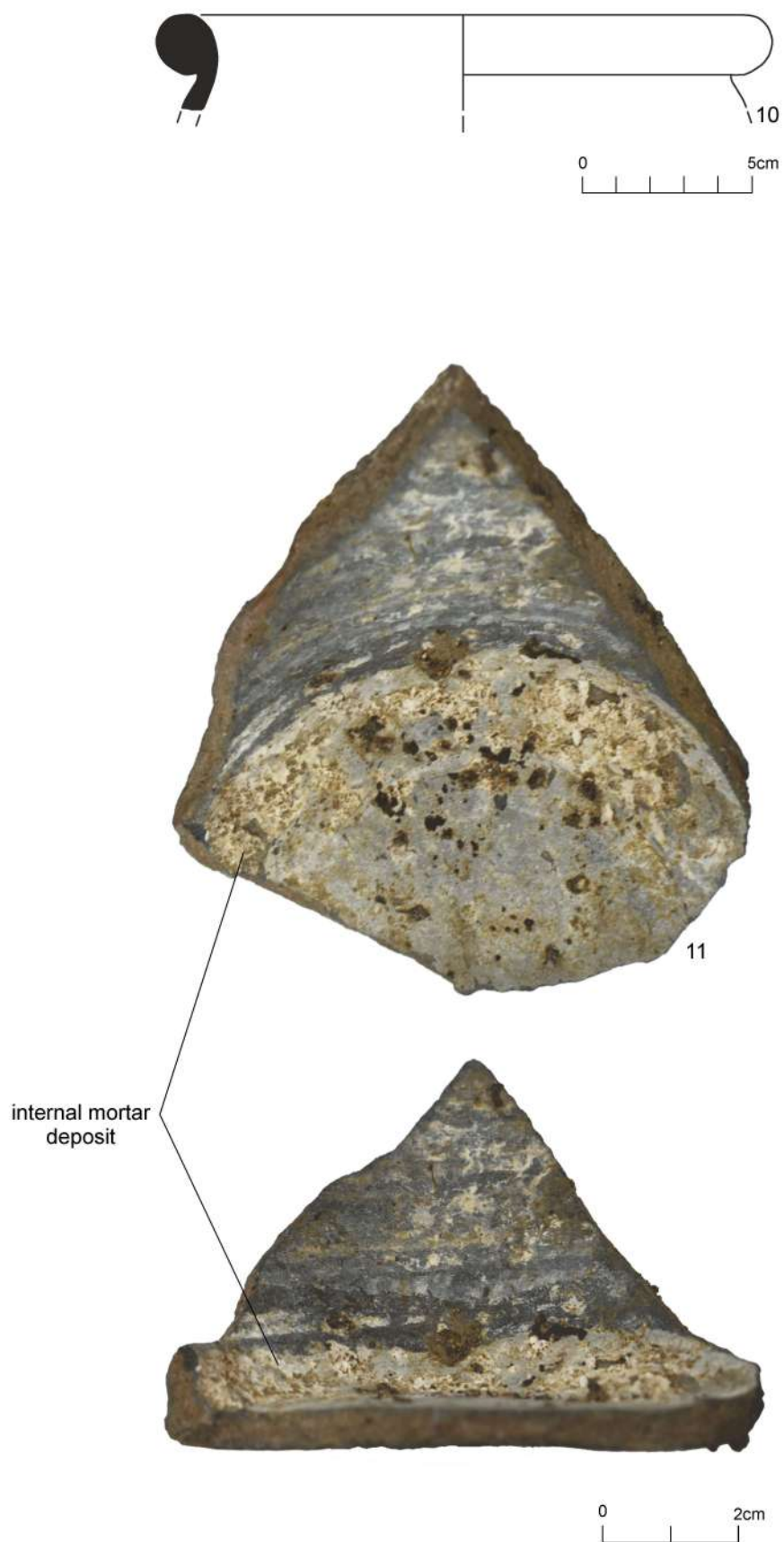


Fig 29 Roman pottery: CAM 268 jar from L33 (10) and grey ware base with an internal mortar deposit from L9 (11).

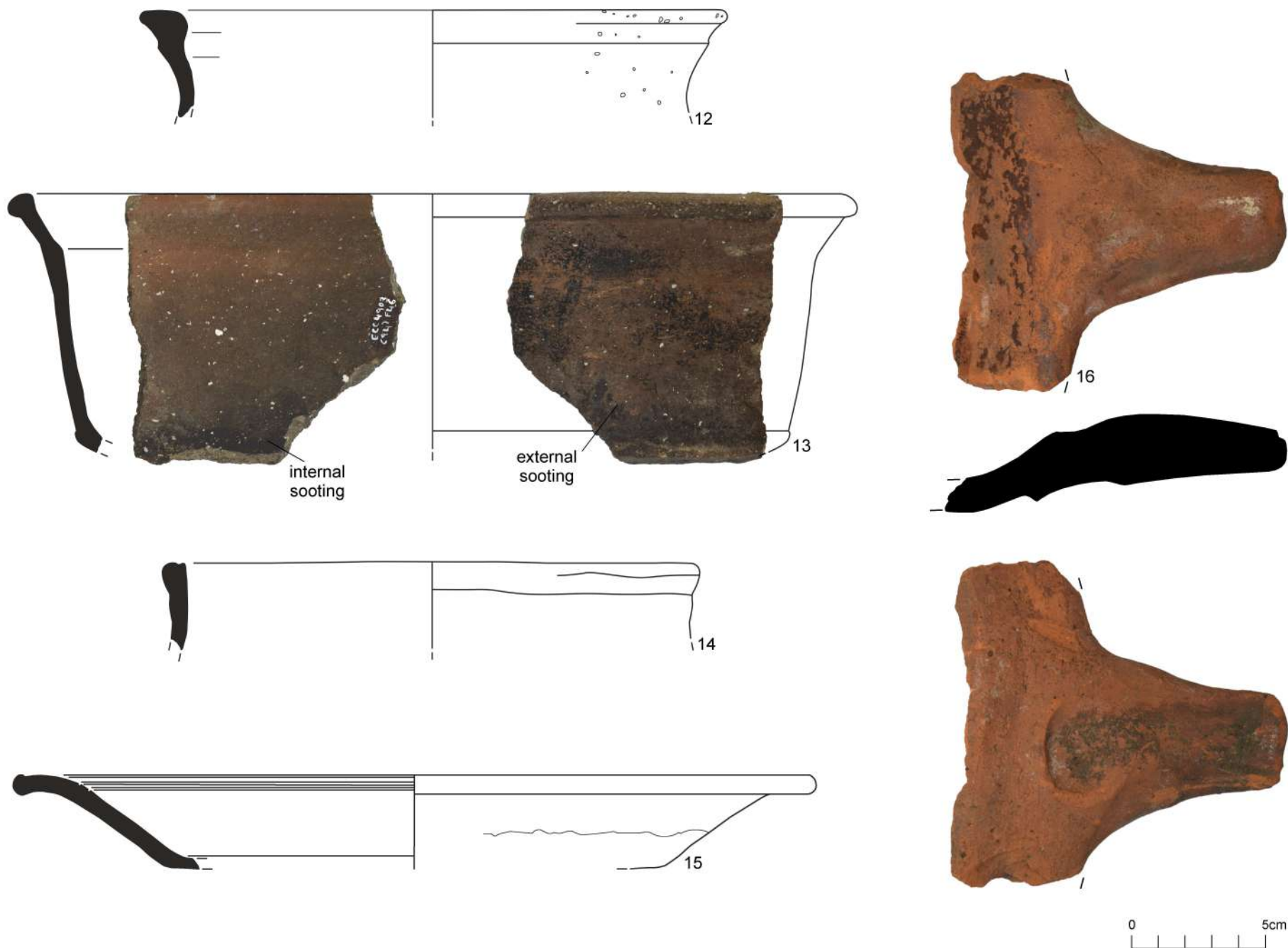


Fig 30 Medieval cooking pots: Fabrics F12A from F31(12), F12B from F45 (13), and F12C from F35 (14). Post-medieval red earthenware vessels: dish from L8 (15) and dripping pan from L13 (16).

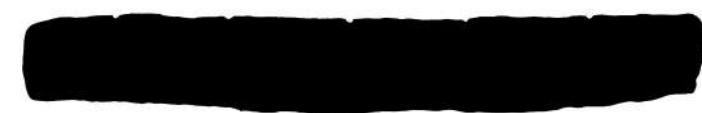


Fig 31 Modern stoneware bottle/jar from L13 (17) and an unstratified fragment of Roman flue-tile with roller-stamp decoration (18).



Fig 32 Small finds: Conjoined Roman finger-rings from L2 (1). A post-Roman button (2), and shoe buckle (3) from L2, a wig curler from L13 (4) and a ?tuning peg from F62. Undated bone shaft from F38 (6) and a stone hone from F80 (7).



Fig 33 Coffin furniture: lead plaque from F30 (1)



Fig 34 Coffin furniture: Iron coffin handles from L2 which are rounded in shape (2-8) and square in shape (9). Iron coffin grip plates and handles from F40 (10) and L13 (11).



Fig 35 Native Polychrome marbles: Purbeck marble *opus sectile* fragments: square (1) and triangle (2) from F38 and Purbeck marble (3a), Thasos (3b) rods and a Purbeck marble, green bed from L7 (4).



Fig 36 Native polychrome marbles: Kimmeridge Dolostone *opus sectile* fragments from L10 (5) and F33 (6). Polychrome imports: Beccia corallina giallastra from F26 (7) and L2 (8), Cipollino verde from F26 (9a-c).



Fig 37 Polychrome imports: Sparta Porphyry from F25 (10), Giallo Rosso from L10 (11), Africano from L8 (12), Imperial Porphyry from F25 (13), plum coloured Belgian limestone from F7 (14), red and white probable Belgic marble from L8 (15), Thasos marble from L9 (16) and Pavonazzetto marble from F28 (17).

Essex Historic Environment Record/ Essex Archaeology and History

Summary sheet

Address: St Nicholas Square, Colchester, Essex, CO1 1LB	
Parish: Colchester	District: Colchester
NGR: TL 99787 25178 (centre)	Site code: CAT project ref.: 2021/06d CHER ref.: ECC4903 OASIS ref.: colchest3-425805
Type of work: Archaeological monitoring and recording, archaeological excavation	Site director/group: Colchester Archaeological Trust
Date of work: 30th October 2023 to 25th June 2025	Size of area investigated: 0.17ha
Location of curating museum: Colchester Museum (finds) Archaeology Data Service (digital)	Funding source: Developer
Further seasons anticipated? No	Related CHER/SMR number: MCC406-7, ECC4586
Final report: CAT Report 2187	
Periods represented: Roman, medieval, post-medieval, modern	
Summary of fieldwork results: Archaeological investigations were carried out at St Nicholas Square, Colchester, Essex between October 2023 and June 2025 during groundworks for a new plaza. Located in the centre of the city, close to Colchester Castle, groundworks revealed significant archaeological remains. Groundworks consisted of trial-holes, widespread areas of ground reduction both in the square and surrounding roads, and the excavation of two tree-pits, a large inspection chamber, smaller manholes and numerous service trenches. The size, shape and depth of these groundworks varied widely. The primary method of investigation was archaeological monitoring and recording with targeted excavated occurring where archaeological remains were identified and where it was possible to do so. The development site is located within St Nicholas' Churchyard. St Nicholas Church had medieval origins and was rebuilt at least twice before being demolished in 1955. A total of thirty-eight in situ burials were impacted by the St Nicholas Square groundworks with	

another three identified but not disturbed. There were fifteen burial chambers dating to the period c 1650-1850. Fourteen were single-width, brick-lined chambers that could potentially accommodate up to six coffins, and there was one probable double-width brick-lined chamber with barrelled roof. All burials associated with the chambers were left in situ and covered by the development. Twenty-three inhumation burials, where a single individual was buried straight into the ground, were at least partially excavated. Thirteen produced fragments of coffin furniture and date from the 17th century onwards.

The development site is also located within Insulas 29 and 30 of the Roman walled town. Investigation of the Roman remains was limited by the nature of the groundworks. The most significant discovery was a substantial north/south wall foundation that appears to be aligned with a foundation identified underneath the church when it was demolished. Together they form part of a sizable building in the north-east corner of Insula 29. Previous excavations in the area have also revealed a large building in the north-west corner of Insula 30, and six more robber trenches were identified (but not excavated) during these groundworks. Between Insulas 29 and 30, groundworks also revealed the remains of the metalled street surface.

Other significant Roman discoveries included Boudiccan demolition debris and the remains of a clay block wall and floor from the pre-Boudiccan colonia, two exquisite gold rings and ninety-eight pieces of marble, an assemblage which has been described as of national importance.

Previous summaries/reports:

CAT Report 1625. 2021. *Archaeological evaluation at St Nicholas Square, Colchester, Essex, CO1 1LB: December 2020*, by M Baister. Colchester: Colchester Archaeological Trust.

Hull, M.R. 1960. 'St Nicholas Church site, Colchester', *Transactions of the Essex Archaeological Society* **25**(3), 301-328.

CCC monitor: Dr Richard Hoggett

Keywords:

Roman Colchester Insula 29, Roman Colchester Insula 30, Roman building, Roman street, Roman marble, Roman gold finger-ring. St Nicholas Church, Colchester; St Nicholas Churchyard, Colchester; burial chambers; graves.

Significance: ***

Author of summary:

Laura Pooley

Date of summary:

01/12/2025

Written Scheme of Investigation (WSI) for an archaeological investigation at St Nicholas' Square, Colchester, Essex, CO1 1LB.

NGR: TL 99787 25178 (centre)

District: Colchester

Parish: Colchester

Planning reference: pre-planning and 210269

Commissioned by: Alison Fogg (Colchester Amphora Trading Ltd)

Client: Colchester Borough Council

Curating museum: Colchester

CHER number: tbc

CAT project code: 2021/06d

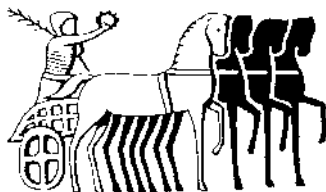
OASIS project number: colchest3-425805

Contracts manager: Chris Lister

Fieldwork manager: Adam Wightman

CBC monitor: Dr Simon Wood

This WSI written: 12/07/2021



COLCHESTER ARCHAEOLOGICAL TRUST,
Roman Circus House,
Roman Circus Walk,
Colchester,
Essex, CO2 7GZ

tel: 01206 501785

email: eh@catuk.org

Site location and description

The proposed development site lies within Colchester town centre, approximately 140m southwest of Colchester Castle, at St Nicholas' Square on land to the rear of 62 High Street, Colchester, Essex. (Fig 1). The site is centred on National Grid Reference (NGR) TL 99787 25178.

Proposed work

The development comprises the redevelopment of urban space, including hard landscaping of the gardens known as St Nicholas' Square. This includes groundworks for new tree pits, a pop-up power point, pop-up water point and general landscaping.

Archaeological background

The following archaeological background is based on extracts from CAT Report 1625, draws on the Colchester Archaeological Trust report archive and the Colchester Historic Environment Record (CHER/ECC numbers; accessible via Colchester Heritage Explorer (<https://colchesterheritage.co.uk/map>)).

Colchester has been the subject of antiquarian and archaeological interest for some centuries, culminating in modern large-scale archaeological excavations within the town centre and suburbs. There is a large corpus of published information on the town's archaeological and historical background, which is only summarised here (Morant 1748, Hull 1958, *CAR 1*, *CAR 3*, *CAR 6*, *CAR 9* and Crummy 1997).

The development site is located within the Roman walled town of *Camulodunum* (MCC9314). Specifically, it straddles *insulas* (town blocks) 29 and 30 of the Roman town, with a Roman street projected north/south through the centre of the development site (Fig 1). Evidence for archaeological remains from Culver Street East, between Queen Street and St Nicholas Street/Long Wyre Street, includes approximately six north-south foundations, an east-west one, and possibly part of a tessellated pavement (Hull 1958, 203-6), which probably belonged to buildings in Insula 30 (MCC1029). Further evidence for these was found on the south side of Culver Street East in a shaft dug in 1948 (MCC8326-7, *ibid*, 206) and in watching briefs under Sainsbury's and Caters (now Savers/ former Poundland) (MCC2194 and MCC2687, Crummy 1971), and also on the north side of Culver Street East at 61-2 High Street (MCC1506, *CAR 6*, 995-6). The discovery of a north-south drain at 65 High Street in 1976 (MCC1597, *CAR 6*, 820) may indicate that Insula 30 was subdivided by a north-south street. At least one large public building may have occupied Insula 30, although the evidence for this is limited (Crummy 1971, 107). Gas replacement works in 2008 along Queen Street and Culver Street East revealed early Roman daub-block walls, burnt during the Boudican uprising of AD 60/1, and post-Boudican foundations and floors, street metalling, and a drain, as well as post-Roman pits and robber trenches (CAT Report 498).

Evidence from Culver Street East to the west of St Nicholas Street/Long Wyre Street include several Roman foundations and many fragments of marble (MCC8319, Hull 1958, 202-3). The north/south street between Insulas 29 and 30 was identified on the St Nicholas' Church site in 1955, after the church's demolition (MCC1570, Hull 1960, 315-16). The west end of Culver Street East lies immediately to the north of the extensive Lion Walk excavations of 1971-4¹ (*CAR 3*, 31-92).

The development site lies within the area of the former churchyard (MCC407) of the demolished church of St Nicholas (MCC406). The church was originally 12th century in date, but was entirely rebuilt twice, once in the 14th century and once in the late 19th century. It became redundant in 1952 and was demolished in 1955. Excavations after demolition revealed the nave and chancel of the medieval church had used Roman walls for the foundations. All that survives of the churchyard are two small raised gardens containing

¹ Includes ChER no.s MCC8311, MCC482, MCC238, MCC677-8, MCC688, MCC694-5, MCC697, MCC702, MCC703, MCC733, MCC735-8, MCC757, MCC794, MCC802, MCC959.

tombstones to the rear of St Nicholas House. It is not clear from historical accounts how many burials, if any, have been cleared from the site.

As well as the obvious potential for medieval and later burials, there was also the high potential for Roman and earlier deposits on the site, if they were not disturbed by the medieval burial ground. A series of work undertaken by CAT at 5-6 St Nicholas Street, immediately to the east of the site, revealed archaeological deposits up to 3.65m below current ground level (CAT Report 1125, CAT Report 1614). During this work the possible remains of a Roman bath house were uncovered, including walls and floors, and a large quantity of finds.

CAT carried out an archaeological test-pit evaluation (two test-pits) on the site in advance of the redevelopment (see Fig 1). The site is located within the churchyard of St Nicholas Church, which was demolished in 1955. Two inhumation burials, three brick burial vaults and two probable pits containing disarticulated bone were uncovered. Finds of a 19th-20th century date were retrieved from the burial soil, although as the site has been a burial ground since the 12th century it is unclear if these find represent the date of the uncovered burials or are the result of modern disturbance (CAT Report 1625; ECC4586).

Project background

Pre-planning consultation was sought from Colchester Borough Council prior to the design and planning application. The CBCAO requested an archaeological test-pit evaluation to inform the design of the scheme. Following the evaluation a further investigation was added to safeguard archaeological assets. A planning application was made to Colchester Borough Council in February 2021 *for the rearranging on site of the existing gravestones currently located in the two enclosed grassed plots of land in the centre of St Nicholas Square.*

As the site lies within an area highlighted by the CHER as having a high potential for archaeological deposits, an archaeological condition was recommended by the Colchester Borough Council Archaeological Advisor (CBCAA). The recommended archaeological condition is based on the guidance given in the *National Planning Policy Framework* (MHCLG 2019).

Requirement for work

The required archaeological work is for archaeological investigation of all groundworks (including services and landscaping). Details are given in a Project Brief written by CBCAA (CBC 2021).

Specifically:

The monitoring is being undertaken to identify and record any surviving archaeological deposits that may exist on site.

If unexpected remains are encountered the CBCAA will be informed immediately and the CBCAA will decide if amendments to the brief are required to ensure adequate provision for archaeological recording.

In the exceptional circumstances that important, well-preserved mosaic floors (or similar remains) are discovered, which cannot otherwise be avoided by the development (and satisfactorily preserved in situ), a contingency will be required for the block-lifting of these archaeological remains, e.g. well-preserved mosaic remains and for subsequent conservation and presentation. A decision about the need for conservation and lifting of important archaeological remains will be made in consultation with specialist stakeholders (e.g. Historic England, Colchester Museum and Norfolk Museums Service, Conservation and Design Services).

The method and form of development will also be monitored to ensure that it conforms to the previously agreed locations and techniques upon which the brief is based. Any variations will be discussed with the CBCAO immediately.

General methodology

All work carried out by CAT will be in accordance with:

- professional standards of the Chartered Institute for Archaeologists, including its *Code of Conduct* (CIfA 2014a-c)
- Standards and Frameworks published by East Anglian Archaeology (Gurney 2003, Medlycott 2011)
- relevant Health & Safety guidelines and requirements (CAT 2020)
- the Project Brief issued by the CBCAA (CBC 2021).

Professional CAT field archaeologists will undertake all specified archaeological work, for which they will be suitably experienced and qualified.

Notification of the supervisor/project manager's name and the start date for the project will be provided to CBCAA one week before start of work.

Unless it is the responsibility of other site contractors, CAT will study mains service locations and avoid damage to these.

At the start of work (immediately before fieldwork commences) an OASIS online record <http://ads.ahds.ac.uk/project/oasis/> will be initiated and key fields completed on Details, Location and Creators forms. At the end of the project all parts of the OASIS online form will be completed for submission to Essex Historic Environment Record (EHER). This will include an uploaded .PDF version of the entire report.

A unique HER event number will be obtained from the CBCAO prior to the commencement of fieldwork. The curating museum will be notified of the details of the project and the event code, which will be used to identify the project archive when depositing at the end of the project.

Staffing

The number of field staff for this project is estimated as follows: One CAT Officer for the duration of the groundworks.

Monitoring methodology

There will be sufficient on-site attendance by CAT staff to maintain a watch on all contractors' ground works to record, excavate or sample (as necessary) any archaeological features or deposits. The investigation will involve monitoring of all groundworks and inspection of upcast soil.

All topsoil removal and ground reduction will be done with a toothless bucket.

If archaeological features or deposits are uncovered, time will be allowed for these to be planned and recorded.

If any features or deposits uncovered are to be destroyed by the proposed development, time will be allowed for these features to be excavated by hand. This includes a 50% sample of discrete features (pits, etc), 10% of linear features (ditches, etc) and 100% of all complex features and burials (see Human Remains policy below).

Fast hand-excavation techniques involving (for instance) picks, forks and mattocks will not be used on complex stratigraphy.

A metal detector will be used to examine spoil heaps, and the finds recovered.

Individual records of excavated contexts, layers, features or deposits will be entered on pro-forma record sheets. Registers will be compiled of finds, small finds and soil samples.

Site surveying

Normal scale for archaeological site plans and sections is 1:20 and 1:10 respectively, unless circumstances indicate that other scales would be more appropriate.

The site grid will be tied into the National Grid. Corners of excavation areas and trenches will be located by NGR coordinates.

Environmental sampling policy

The number and range of samples collected will be adequate to determine the potential of the site, with particular focus on palaeoenvironmental remains including both biological remains (e.g. plants, small vertebrates) and small sized artefacts (e.g. smithing debris), and to provide information for sampling strategies on any future excavation. Samples will be collected for potential micromorphical and other pedological sedimentological analysis. Environmental bulk samples will be 40 litres in size (assuming the context is large enough).

Sampling strategies will address questions of:

- the range of preservation types (charred, mineral-replaced, waterlogged), and their quality
- concentrations of macro-remains
- and differences in remains from undated and dated features
- variation between different feature types and areas of site

CAT has an arrangement with Val Fryer / Lisa Gray whereby any potentially rich environmental layers or features will be appropriately sampled as a matter of course. Trained CAT staff will do any processing and the flots passed to Val Fryer / Lisa Gray for analysis and reporting.

Should any complex, or otherwise outstanding deposits be encountered, VF/LG will be asked onto site to advise. Waterlogged 'organic' features will always be sampled. In all cases, the advice of VF/LG and/or the Historic England Regional Advisor in Archaeological Science (East of England) on sampling strategies for complex or waterlogged deposits will be followed, including the taking of monolith samples.

Human remains

CAT follows the policy of leaving human remains *in situ* unless there is a clear indication that the remains are in danger of being compromised as a result of their exposure or unless advised to do so by the project osteologist or CBCAO.

CBCAO will be notified immediately if any human remains are encountered during the monitoring.

If circumstances indicated it were prudent or necessary to remove remains from the site during the monitoring, the following criteria would be applied; if it is clear from their position, context, depth, or other factors that the remains are ancient, then normal procedure is to apply to the Department of Justice for a licence to remove them and seek advice from the project osteologist. Human remains removed from site for analysis this may involve radiocarbon dating (see finds section).

Following HE guidance (HE 2018) if the human remains are not to be lifted, the project osteologist should be available to record the human remain *in situ* (i.e. a site visit). Conditions laid down by the DoJ license will be followed. If it seems that the remains are not ancient, then the coroner, the client, and the CBCAO will be informed, and any advice and/or instruction from the coroner will be followed.

Photographic record

Will include both general and feature-specific photographs, the latter with scale and north arrow. A photo register giving context number, details, and direction of shot will be prepared on site, and included in site archive. Digital site photographs will be taken and archived as per Historic England guidelines (HE 2015a).

Finds

All significant finds will be retained.

All finds, where appropriate, will be washed and marked with site code and context number. CAT may use local volunteers to assist the CAT Finds Officer with this task.

Most of our finds reports are written internally by CAT Staff under the supervision and direction of Philip Crummy (Director) and Laura Pooley (Post-excavation Manager). This includes specialist subjects such as:

ceramic finds (pottery and ceramic building material): Matthew Loughton

animal bones: Alec Wade (or Adam Wightman, small groups only)

small finds, metalwork, coins, etc: Laura Pooley

non-ceramic bulk finds: Laura Pooley

flints: Adam Wightman

environmental processing: Bronagh Quinn

project osteologist (human remains): Meghan Seehra

or to outside specialists:

animal and human bone: Julie Curl (*Sylvanus*)

environmental assessment and analysis: Val Fryer / Lisa Gray

archaeometallurgy: David Dungworth

radiocarbon dating: SUERC Radiocarbon Dating Laboratory, Glasgow

conservation/x-ray: Laura Ratcliffe (LR Conservation) / Norfolk Museums Service,
Conservation and Design Services

Other specialists whose opinion can be sought on large or complex groups include:

flint: Hazel Martingell

prehistoric pottery: Stephen Benfield / Nigel Brown / Paul Sealey

Roman pottery: Stephen Benfield / Paul Sealey / Jo Mills / Gwladys Monteil

Roman brick/tile: Ian Betts (MOLA)

Roman glass: Hilary Cool

small finds: Nina Crummy

other: EH Regional Adviser in Archaeological Science (East of England).

All finds of potential treasure will be removed to a safe place, and the coroner informed immediately, in accordance with the rules of the Treasure Act 1996. The definition of treasure is given in pages 3-5 of the Code of Practice of the above act. This refers primarily to gold or silver objects.

Requirements for conservation and storage of finds will be agreed with the appropriate museum prior to the start of work, and confirmed to CBCAO.

A contingency will be made in the budget for scientific assessment/analysis if suitable deposits are identified. This can include soil micromorphological and geochemical analysis of floors and dark earth deposits and/or absolute dating (such as archaeomagnetic and radiocarbon). The Historic England Regional Science Advisor will be consulted for advice.

Results

Notification will be given to CBCAO when the fieldwork has been completed.

An appropriate archive will be prepared to minimum acceptable standards outlined in *Management of Research Projects in the Historic Environment* (HE 2015b).

The report will be submitted within 6 months of the end of fieldwork, with a copy supplied to CBCAO as a PDF.

The report will contain:

- Location plan of the groundworks in relation to the proposed development. At least two corners of the site will be given 10 figure grid references.
- Section/s drawings showing depth of deposits from present ground level with Ordnance Datum, vertical and horizontal scale.
- Archaeological methodology and detailed results including a suitable conclusion and discussion and results referring to Regional Research Frameworks (Medlycott 2011).
- All specialist reports or assessments
- A concise non-technical summary of the project results.

An EHER summary sheet will also be completed within four weeks and supplied to CBCAO.

Results will be published, to at least a summary level (i.e. round-up in *Essex Archaeology & History*) in the year following the archaeological field work. An allowance will be made in the project costs for the report to be published in an adequately peer reviewed journal or monograph series.

A PDF copy of the full report will be uploaded by CAT to the OASIS website and the Colchester Archaeological Trust's Online Report Library (<http://cat.essex.ac.uk/>), both of which are publicly accessible.

Archive deposition

It is a policy of Colchester Borough Council that the integrity of the site archive be maintained (i.e. all finds and records should be properly curated by a single organisation), with the archive available for public consultation. To achieve this desired aim it is assumed that the full archive will be deposited in Colchester Museums *unless otherwise agreed in advance*. (A full copy of the archive shall in any case be deposited).

By accepting this WSI, the client agrees to deposit the archive, including all artefacts, at Colchester & Ipswich Museum.

The requirements for archive storage will be agreed with the curating museum.

If the finds are to remain with the landowner, a full copy of the archive will be housed with the curating museum and provision must be made for additional recording (e.g. photography, illustration and analysis) as appropriate.

The archive will be deposited with Colchester & Ipswich Museum or an alternate repository (approved by COLEM and CBCAO) within 3 months of the completion of the final publication report, with a summary of the contents of the archive supplied to CBCAA. Digital archives will be curated with the Archaeology Data Service, or similar accredited digital archive repository, that safeguard the long-term curation of digital records.

The CBCAO will be notified of the archiving timetable throughout the project and once deposition has occurred.

A digital / vector drawing of the site be given to the CBCAO for integration into the HER.

Monitoring

CBCAA will be responsible for monitoring progress and standards throughout the project, and will be kept regularly informed during fieldwork, post-excavation and publication stages.

Notification of the start of work will be given to CBCAO one week in advance of its commencement.

Any variations in this WSI will be agreed with CBCAO prior to them being carried out.

CBCAO will be notified when the fieldwork is complete.

The involvement of CBCAO shall be acknowledged in any report or publication generated by this project.

References

Note: all CAT reports, except for DBAs, are available online in PDF format at <http://cat.essex.ac.uk>

Brown, D	2011	<i>Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation</i>
CAR 1	2nd ed	
	1981	<i>Aspects of Anglo-Saxon and Norman Colchester. Colchester Archaeological Report 1.</i> By P Crummy
CAR 3	1984	<i>Excavations at Lion Walk, Balcerne Lane, and Middleborough, Colchester, Essex: Colchester Archaeological Report 3.</i> By P Crummy
CAR 6	1992	<i>Excavations at Culver Street, the Gilbert School, and other sites in Colchester 1971-85, Colchester Archaeological Report 6.</i> By P Crummy
CAR 9	1993	<i>Excavations of Roman and later cemeteries, churches and monastic sites in Colchester, 1971-88. Colchester Archaeological Report 9.</i> By N Crummy, P Crummy, and C Crossan
CAT	2020	<i>Health & Safety Policy</i>
CAT Report 498	2008	<i>An archaeological watching brief on trenches for gas mains in Queen Street and Culver Street East, Colchester, Essex - April-November 2008.</i> By D Shimmin
CAT Report 1125	2017	<i>Archaeological evaluation and monitoring at 5-6 St Nicholas Street and 60 Culver Street East, Colchester, Essex, CO1 1DW: April 2017.</i> By L Pooley
CAT Report 1614	Forthcoming	<i>Archaeological excavation at 5-6 St Nicholas Street and 60 Culver Street East, Colchester, Essex, CO1 1DW: June-July 2019.</i> By L Pooley
CAT Report 1625	2021	<i>Archaeological evaluation at St Nicholas Square, Colchester, Essex, CO1 1LB: December 2020.</i> By M Baister
CBCAA	2021	<i>Brief for Archaeological Investigation at St Nicholas Square, Colchester.</i> By R Hoggett
CIfA	2014a	<i>Standard and Guidance for an archaeological watching brief.</i> Revised June 2020
CIfA	2014b	<i>Standard and guidance for the collection, documentation, conservation and research of archaeological materials.</i> Updated Oct 2020
CIfA	2014c	<i>Code of Conduct.</i> Revised Oct 2019
Crummy, P	1971	<i>'Insula 30', Transactions of the Essex Archaeological Society 3, 3rd series, part 1, 107-111</i>
Crummy, P	1997	<i>City of Victory. The Story of Colchester – Britain's first Roman town</i>
Gurney, D	2003	<i>Standards for field archaeology in the East of England.</i> East Anglian Archaeology Occasional Papers 14 (EAA)

Historic England (HE)	2015a	14). <i>Digital Image capture and File Storage: Guidelines for best practice.</i> By S Cole & P Backhouse
Historic England (HE)	2015b	<i>Management of Research Projects in the Historic Environment (MoRPHE)</i>
Historic England (HE)	2018	<i>The Role of the Human Osteologist in an Archaeological Fieldwork Project.</i> By S Mays, M Brickley and J Sidell
Hull, M R	1958	<i>Roman Colchester</i>
Hull, M R	1960	<i>St Nicholas Church site, Colchester', Transactions of the Essex Archaeological Society 25 (1955), 301-328</i>
Medlycott, M	2011	<i>Research and archaeology revisited: A revised framework for the East of England.</i> East Anglian Archaeology Occasional Papers 24 (EAA 24)
MHCLG	2019	<i>National Planning Policy Framework.</i> Ministry of Housing, Communities and Local Government.
Morant, P	1748	<i>History and antiquities of the Borough of Colchester</i>

E Holloway



Colchester Archaeological Trust
Roman Circus House
Roman Circus Walk
Colchester
Essex
CO2 2GZ

tel: 01206 501785
email: eh@catuk.org

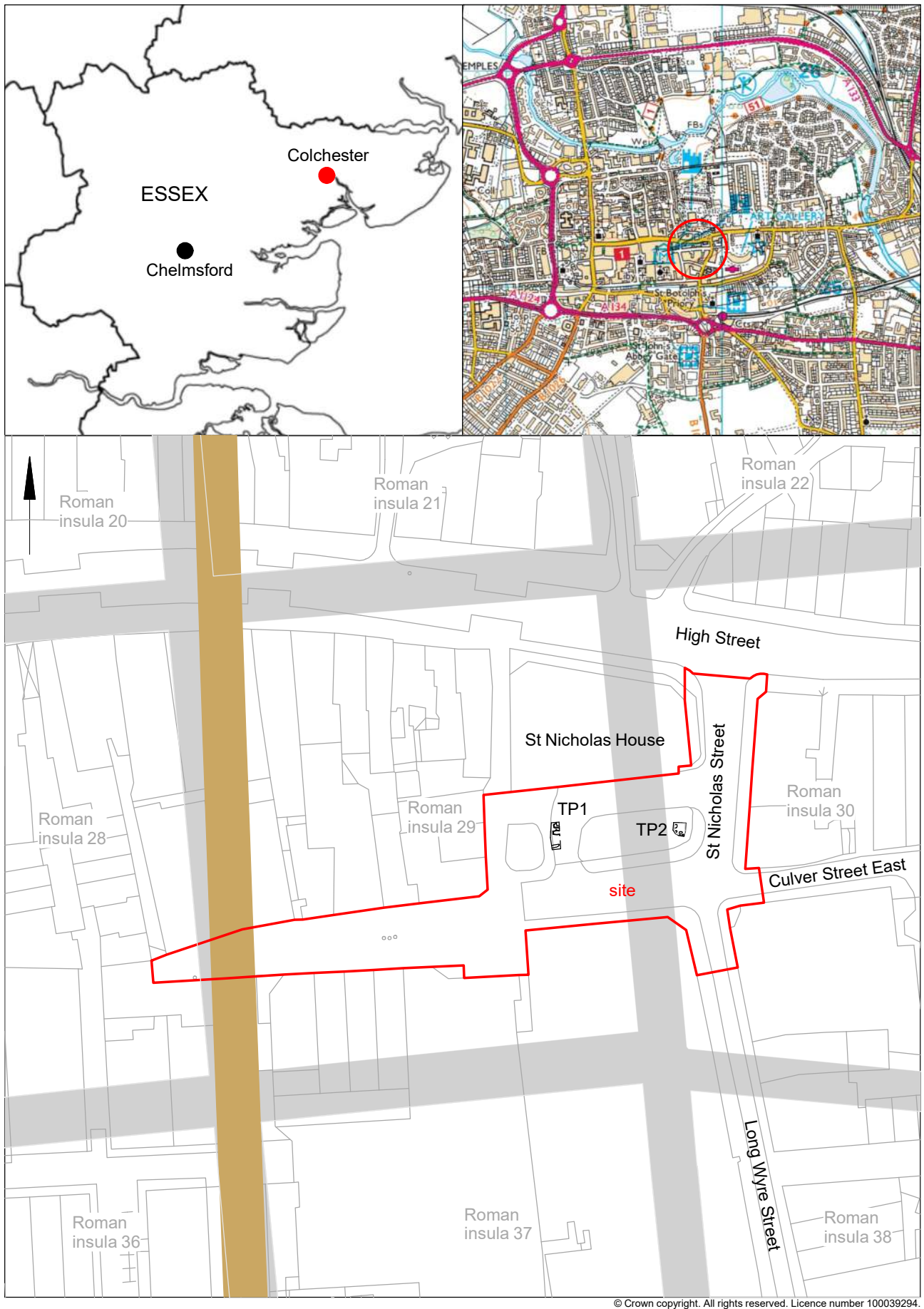


Fig 1 Site location.

Roman street layout
 Legionary fortress ditch

0 50 m

OASIS Summary for colchest3-425805

OASIS ID (UID)	colchest3-425805
Project Name	Archaeological investigations at St Nicholas' Square, Colchester, Essex, CO1 1LB: October 2023 – June 2025
Sitename	St Nicholas Square, Colchester, Essex, CO1 1LB
Sitecode	ECC4903
Project Identifier(s)	2021/06d
Activity type	Watching Brief, Excavation, Field Observation (monitoring)
Planning Id	210269
Reason For Investigation	Planning requirement
Organisation Responsible for work	Colchester Archaeological Trust
Project Dates	30-Oct-2023 - 25-Jun-2025
Location	St Nicholas Square, Colchester, Essex, CO1 1LB NGR : TL 99787 25178 LL : 51.8893410310377, 0.901852860380356 12 Fig : 599787,225178
Administrative Areas	Country : England County/Local Authority : Essex Local Authority District : Colchester Parish : Colchester, unparished area
Project Methodology	Archaeological monitoring and recording of all groundworks, with excavation carried out as required, as specified in the project brief and WSI.

Project Results	Archaeological investigations were carried out at St Nicholas Square, Colchester, Essex between October 2023 and June 2025 during groundworks for a new plaza. Located in the centre of the city, close to Colchester Castle, groundworks revealed significant archaeological remains. Groundworks consisted of trial-holes, widespread areas of ground reduction both in the square and surrounding roads, and the excavation of two tree-pits, a large inspection chamber, smaller manholes and numerous service trenches. The size, shape and depth of these groundworks varied widely. The primary method of investigation was archaeological monitoring and recording with targeted excavated occurring where archaeological remains were identified and where it was possible to do so. The development site is located within St Nicholas' Churchyard. St Nicholas Church had medieval origins and was rebuilt at least twice before being demolished in 1955. A total of thirty-eight in situ burials were impacted by the St Nicholas Square groundworks with another three identified but not disturbed. There were fifteen burial chambers dating to the period c 1650-1850. Fourteen were single-width, brick-lined chambers that could potentially accommodate up to six coffins, and there was one probable double-width brick-lined chamber with barrelled roof. All burials associated with the chambers were left in situ and covered by the development. Twenty-three inhumation burials, where a single individual was buried straight into the ground, were at least partially excavated. Thirteen produced fragments of coffin furniture and date from the 17th century onwards. The development site is also located within Insulas 29 and 30 of the Roman walled town. Investigation of the Roman remains was limited by the nature of the groundworks. The most significant discovery was a substantial north/south wall foundation that appears to be aligned with a foundation identified underneath the church when it was demolished. Together they form part of a sizable building in the north-east corner of Insula 29. Previous excavations in the area have also revealed a large building in the north-west corner of Insula 30, and six more robber trenches were identified (but not excavated) during these groundworks. Between Insulas 29 and 30, groundworks also revealed the remains of the metalled street surface. Other significant Roman discoveries included Boudiccan demolition debris and the remains of a clay block wall and floor from the pre-Boudiccan colonia, two exquisite gold rings and ninety-eight pieces of marble, an assemblage which has been described as of national importance.
-----------------	--

Keywords	Building - ROMAN - FISH Thesaurus of Monument Types Building - ROMAN - FISH Thesaurus of Monument Types Road - ROMAN - FISH Thesaurus of Monument Types Inlay - ROMAN - FISH Archaeological Objects Thesaurus Floor Tile - ROMAN - FISH Archaeological Objects Thesaurus Vessel - ROMAN - FISH Archaeological Objects Thesaurus Flue Tile - ROMAN - FISH Archaeological Objects Thesaurus Roof Tile - ROMAN - FISH Archaeological Objects Thesaurus Brick - ROMAN - FISH Archaeological Objects Thesaurus Coin - ROMAN - FISH Archaeological Objects Thesaurus Finger Ring - ROMAN - FISH Archaeological Objects Thesaurus Robber Trench - MEDIEVAL - FISH Thesaurus of Monument Types Robber Trench - POST MEDIEVAL - FISH Thesaurus of Monument Types Churchyard - MEDIEVAL - FISH Thesaurus of Monument Types Churchyard - POST MEDIEVAL - FISH Thesaurus of Monument Types Burial Vault - POST MEDIEVAL - FISH Thesaurus of Monument Types Inhumation Cemetery - MEDIEVAL - FISH Thesaurus of Monument Types Inhumation Cemetery - POST MEDIEVAL - FISH Thesaurus of Monument Types Inhumation - MEDIEVAL - FISH Thesaurus of Monument Types Inhumation - POST MEDIEVAL - FISH Thesaurus of Monument Types Coffin Fitting - POST MEDIEVAL - FISH Archaeological Objects Thesaurus
Funder	District, borough or city council
HER	Colchester Borough Council - unRev - STANDARD
Person Responsible for work	Chris Lister, Adam Wightman
HER Identifiers	
Archives	Digital Archive - to be deposited with Archaeology Data Service Archive; Physical Archive - to be deposited with Colchester & Ipswich Museum Sevice (Colchester Collection);