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**FORMER SMOKE HOUSE INN, BECK ROW,
MILDENHALL, SUFFOLK**

RESEARCH ARCHIVE REPORT

VOLUME I - REPORT

Authors: Antony RR Mustchin MSc (Report) Peter Thompson MA (Preparative Research)	
Illustrations: Rosanna Price BSc, Charlotte Davies MPhil and Kathren Henry	
NGR: TL 689 778	Report No: 4514 Oasis no. - archaeol7-190498
District: Forest Heath	Site Code: MNL 638
Approved: C. Halpin	Project No: 3930
Signed:	Date: 18 February 2014 Revised: 18/09/2014

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ARCHAEOLOGICAL SOLUTIONS LTD

**Unit 6, Brunel Business Court, Eastern Way,
Bury St Edmunds IP32 7AJ
Tel 01284 765210**

**PI House, 23 Clifton Road, Shefford,
Bedfordshire, SG17 5AF
Tel 01462 850483**

**e-mail info@ascontracts.co.uk
www.archaeologicalsolutions.co.uk**



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OASIS SUMMARY

Project name Former Smoke House Inn, Beck Row, Mildenhall, Suffolk

Between July 2010 and August 2011, Archaeological Solutions Ltd (AS) carried out an archaeological excavation on land at the former Smoke House Inn, Beck Row, Mildenhall, Suffolk (NGR TL 689 778). Planning consent for the excavation was granted by Forest Heath District Council (application F/2006/0254). The project was carried out according to a Brief compiled by Suffolk County Council (dated 05/03/2010) and a Written Scheme of Investigation compiled by AS (dated 08/07/2010).

The site had previously been subject to an archaeological trial trench evaluation by the Suffolk County Council Archaeological Service Field Team (SCCAS-FT; SHER Site Code MNL 618), which identified “substantial and important evidence of the...Roman period occupation” (Craven 2009, 66). This was akin to previously excavated evidence from neighbouring sites (i.e. SHER entries MNL 502, MNL 570, MNL 598 and MNL 608; *ibid.*).

The excavation revealed an extensive Romano-British rural landscape comprising a dense concentration of features dated between the 1st and late 4th century+ AD, as well as more ephemeral evidence of prehistoric and medieval/ post-medieval activity. The Roman occupation, represented by seven distinct sub-phases, was chiefly characterised by a substantial and evolving system(s) of boundaries and enclosures, including a ‘ladder’ system dated to the mid-3rd to early 4th century. The recovered artefactual/ ecofactual assemblage is equally rich. The site forms a major element of a large Romano-British agricultural/ settlement landscape which also includes previously excavated sites in the vicinity.

Project dates (fieldwork)	19 July 2010 – 8 August 2011		
Previous work (Y/N/?)	N	Future work (Y/N/?)	TBC
P. number	3930	Site code	MNL 638
Type of project	Archaeological Excavation		
Site status	-		
Current land use	Mainly derelict with some extant buildings and hard standing		
Planned development	Housing development		
Main features (+dates)	Prehistoric (Bronze Age/ Iron Age): tentative enclosures and ephemeral structural evidence (possible roundhouse and four-post structure). Romano-British (late 1 st to mid-4 th century+ AD): enclosure systems, burials (human and animal), cremations (human) and a kiln/ oven, plus occupation deposits and ephemeral structural evidence.		
Significant finds (+dates)	Prehistoric: pottery, struck flint, worked bone Roman: pottery, vessel glass, Pb, Fe, Cu alloy objects, worked bone, coins, slag		
Project location			
County/ District/ Parish	Suffolk	Forest Heath	Beck Row, Holywell Row and Kenny Hill
HER for area	Suffolk		
Post code (if known)	-		
Area of site	c. 3.7ha		
NGR	TL 689 778		
Height AOD (min/max)	c. 4-5m		
Project creators			
Brief issued by	Jude Plouviez, Suffolk County Council		
Project supervisor/s (PO)	Antony RR Mustchin (previously Walter McCall and Tim Schofield)		
Funded by	Persimmon plc.		
Full title	Former Smoke House Inn, Beck Row, Mildenhall, Suffolk. Research Archive Report		
Authors	Antony RR Mustchin		
Report no.	4514	Oasis no. - archaeol7-190498	
Date (of report)	18/02/2014 (Revised 18/09/2014)		

FORMER SMOKE HOUSE INN, BECK ROW, MILDENHALL, SUFFOLK

RESEARCH ARCHIVE REPORT

SUMMARY

Between July 2010 and August 2011, Archaeological Solutions Ltd (AS) carried out an archaeological excavation on land at the former Smoke House Inn, Beck Row, Mildenhall, Suffolk (NGR TL 689 778). Planning consent for the excavation was granted by Forest Heath District Council (application F/2006/0254). The project was carried out according to a Brief compiled by Suffolk County Council (dated 05/03/2010) and a Written Scheme of Investigation compiled by AS (dated 08/07/2010) and approved by Suffolk County Council.

*The site had previously been subject to an archaeological trial trench evaluation by the Suffolk County Council Archaeological Service Field Team (SCCAS-FT; SHER Site Code MNL 618), which identified “substantial and important evidence of...Roman period occupation” (Craven 2009, 66). This was akin to previously excavated evidence from neighbouring sites (i.e. SHER entries MNL 502, MNL 570, MNL 598 and MNL 608; *ibid.*).*

The excavation revealed an extensive Romano-British rural landscape comprising a dense concentration of features dated between the 1st and late 4th centuries+ AD, as well as more ephemeral evidence of prehistoric and medieval/ post-medieval activity. The Roman occupation, represented by seven distinct sub-phases, was chiefly characterised by a substantial and evolving system(s) of boundaries and enclosures, including a ‘ladder’ system dated to the mid-3rd to early 4th centuries. The recovered artefactual/ ecofactual assemblage is equally rich. The site forms a major element of a large Romano-British agricultural/ settlement landscape which also includes previously excavated sites in the vicinity.

1 INTRODUCTION

Between July 2010 and August 2011 Archaeological Solutions Ltd (AS) carried out an archaeological excavation on land at the former Smoke House Inn, Beck Row, Mildenhall, Suffolk (centred on NGR TL 689 778; Figs. 1-3; Plate 1). The project was commissioned by Persimmon plc. ahead of proposed residential redevelopment of the site. Planning consent for the excavation was granted by Forest Heath District Council (application F/2006/0254).

The excavation was undertaken in accordance with a brief issued by Suffolk County Council (dated 05/03/2010) and a Written Scheme of Investigation compiled by AS (dated 08/07/2010). The project adhered to the Institute for Archaeologists’ (previously the Institute of Field Archaeologists’; IfA) *Standard and Guidance for Archaeological Excavations* (revised 2008), *Standards for Field Archaeology in the East of England* (Gurney 2003), and English Heritage’s *Management of Archaeological Projects*, 1991 (MAP2). The monitoring followed a desk-based

assessment and trial trench evaluation conducted by the Suffolk County Council Archaeological Service Field Team (Craven 2009).

The principle objective of the project as stated in the Written Scheme of Investigation was:

- To preserve the archaeological evidence contained within the site by record and to attempt a reconstruction of the history and use of the site.

The research priorities of the project, as set out in the Written Scheme of Investigation were to:

- Place the Roman and prehistoric settlement activity into context with the known activity of these dates in the surrounding area.
- Contribute to a model of prehistoric and Roman activity within this part of Mildenhall.
- Characterise the activity present within the current site and attempt to identify zones of activity (the focus of occupation; associated agricultural activity; evidence for ritual structures/ deposits; the presence of any industrial practices).
- Identify topographical/ geological/ geographical influences on the layout and development of activity present within the current site and in the surrounding area.
- Attempt environmental reconstruction.

2 DESCRIPTION OF THE SITE

The site is located in north-west Suffolk within the parish of Beck Row, Holywell Row and Kenny Hill, immediately north of RAF Mildenhall and c. 20km north-west of Bury St Edmunds (NGR TL 689 778; Fig. 1). Lakenheath is c. 5.5km to the north-east and Newmarket is c. 14.5km to the south-west.

Prior to excavation the site was largely derelict land, formerly the location of the Smoke House Inn. Most of the buildings surrounding the former hotel had been demolished, although a small group remained, including *The Sycamores*, a Grade II listed property with 18th century origins (LB 275893; Craven 2009, 3). The car park of a derelict commercial property was present to the west of Sycamore Drive, whilst an area of hardstanding fronted The Street and Sycamore Drive in the south-west of the site. The northern part of the site had comprised an area of grass until 2008 (*ibid.*).

3 THE EVIDENCE

3.1 Topography, geology and soils

The site comprises flat land (c. 4-5m AOD) a short distance south of Mildenhall Fen-edge on the south-eastern periphery of the Wash Fenlands (Hall 1996, 2, fig.1; Fig. 4). The River Lark runs c. 3.5km to the south, the Little Ouse is c. 8km to the north and the Great Ouse, the fourth longest river in the United Kingdom, passes c. 13km to the west. Soils at the site are predominantly of the Isleham 2 association, described as humic-sandy gley soils which are predominantly sandy, developing chiefly in aeolian or glaciofluvial deposits but which have a humose or peaty topsoil (Soil Survey of England and Wales 1983, 20). These soils are prone to winter flooding and wind erosion (*ibid.*). Soils in the north and east of the site are of the Swaffham Prior association, being typical brown calcareous earth (soils in which pedogenic processes have produced dominantly brownish or reddish subsurface horizons with no prominent mottling or greyish colours (gleying) above 40cm depth). These soils are found mostly on permeable materials, at elevations below c. 300m and mostly in agricultural areas (www.soilsworldwide.net). The underlying geology is chalk drift and Cretaceous Lower Chalk with variable thicknesses of sand cover and peat hollows.

The level topography of the site prior to archaeological works was atypical of the naturally undulating local fen-edge (Craven 2009, 5). Craven (*ibid.*) has suggested that the flatness of the site was the result of ploughing and development since the medieval period. Version 3 of the *Suffolk Historic Environment Characterisation Map* (www.suffolk.gov.uk/assets/suffolk.gov.uk/Libraries) depicts the immediate landscape as a mix of former common arable or heathland, or former marsh or fenland that was subject to enclosure during or following the 18th century. The *Suffolk Landscape Character Assessment* (Suffolk County Council) further states that Mildenhall Fen, formerly Mildenhall Common Fen, was subject to piecemeal enclosure prior to the 1759 Drainage Act. A 2006 archaeological evaluation on Washington Street (the PIK Housing site; MNL 570), immediately to the west of the present site, reported various sections through what was interpreted as a large peat-filled hollow (Craven 2006, 4-5), characteristic of this 'settled fenland' landscape. Three substantial peat-filled hollows were also investigated during the excavation of MNL 502, the site of a Romano-British maltings directly to the north-east of the current site (Bales 2004, 3; Figs. 2 and 4).

3.2 Archaeological and historical background (Fig. 4)

Owing to the large number of previous archaeological investigations, both on and around the current site, and the multi-period nature of the archaeology encountered, evidence from the Beck Row area will be first discussed here by Suffolk Historic Environment Record (SHER) number, rather than by chronological period. MNL 608 and MNL 618 are most relevant as they comprise work carried out within the confines of the present site, while the Maltings (MNL 502), the USAF Photographic Utility site (MNL 508), the PIK Housing site (MNL 570), 70 The Street (MNL 589) and the Skelton's Drove site (MNL 598) are contiguous. Other sites of relevance situated within a 1km radius will be discussed by chronological period.

The Maltings (MNL 502) (Figs. 2 and 4)

Of the adjacent archaeological sites, the Maltings (MNL 502) is the only one published to date. The site, excavated by SCCAS between 1998 and 1999 (Bales 2004, 1-2), borders the north-western edge of the current site and comprises an area of 1.7ha. Four main periods of activity were identified spanning the early Bronze Age to the post-medieval period. Period I comprised sparse evidence of early Bronze Age settlement, including archaeological features, Beaker and other pottery, and worked/ burnt flint, while residual Mesolithic flint blades and flakes were also present (*ibid.* 3-7). The Iron Age (Period II) occupation evidence included c. two possible structures, two phases of enclosures and assorted postholes and pits (*ibid.* 7). The late Iron Age and Romano-British occupation (Period III) was further divided into three distinct sub-phases. The main occupation phase (Period III.2) included a series of enclosures and a large mid-2nd century AD post-built aisled building (Building 1), measuring c. 24 x 10m (externally; *ibid.* 11ff). Period III.3 saw the replacement of Building 1, which had apparently burned down, with another large post-built structure (Building 2), measuring c. 30 x 10m; a series of ditched enclosures were also assigned to this period (*ibid.*). The site went out of general use around the mid-3rd century AD (Craven 2009, 5), and Period IV comprised 16th/ 17th century field boundaries (Bales 2004, 19).

MNL 618 (former Smoke House Inn – evaluation) (Figs. 2 and 4)

In 2009 an archaeological trial trench evaluation was carried out at the site of the former Smoke House Inn; of the 29 trenches set out, 22 contained archaeological remains, predominantly relating to the Romano-British occupation (c. 2nd century AD onwards; Craven 2009, 11). The density of deposits and presence of a preserved Roman soil horizon running through many of the trenches indicated a focus of domestic activity (*ibid.* 62-3). This was supported by a sizeable finds assemblage including a statuette, a complete copper alloy bowl and a large collection of coins (*ibid.* 56). A widespread complex of ditches and pits indicated broader agricultural and/ or domestic activity surrounding this focal area. Scattered evidence was also identified of earlier prehistoric activity, most likely early Iron Age in date. The main finds and features are described below.

The northern part of the site contained Trenches 1-3 and 18-21. Trench 1 was located close to the spoilheap of an earlier evaluation (MNL 598), to the east (below). It contained a dense spread of cut features or archaeological deposits including a pit, a north-west to south-east aligned ditch, a north-east to south-west aligned gully and two ditches running north to south, one of which yielded Roman CBM (ceramic building material); a Roman coin was recovered from the spoilheap (*ibid.* 11). Trench 2 was similar in content to Trench 1 and contained two ditches, respectively aligned north-west to south-east and north-east to south-west. One yielded 46 pottery sherds, while the other yielded 27 sherds; both were dated to the 2nd/ 3rd century AD (*ibid.* 12). Trench 3 contained no archaeological features/ deposits of any kind (*ibid.*), while Trench 18 contained an occupation layer sealing a dense spread of features including two ditches, respectively aligned north-west to south-east and north-east to south-west (*ibid.* 17). Trench 19 contained a similarly dense spread of features but was not excavated (*ibid.* 18). Both Trenches 20 and 21 were also thought to contain Romano-British occupation layers. Trench 20 revealed

a buried occupation soil and yielded three unstratified coins including one of Theodosius (AD 388-402), and a lead waste fragment (*ibid.*). A north-east to south-west aligned ditch within this trench contained 1st/ 2nd century pottery. Trench 21 produced four Roman coins and a copper alloy statuette (recovered from the spoil; *ibid.*).

The western part of the site, comprising an area of former buildings and hardstanding, contained Trenches 24 to 29 inclusive. Despite heavy truncation by modern services, Trench 24 contained a mix of occupation deposits and unstratified finds including a Roman coin and other metalwork (*ibid.* 19). Trench 25 revealed disturbed modern activity and a natural hollow (containing buried soils and medieval pottery) plus one or more cut features (*ibid.* 20). Trench 26 revealed only modern disturbance (*ibid.*). Trench 27 contained archaeological features and a layer of sand interspersed by areas of modern disturbance; finds from this trench included 2nd century AD and prehistoric pottery (*ibid.*). In addition to a continuation of the sand layer identified in Trench 27, Trench 28 contained several cut features including an east to west oriented ditch which yielded a single Roman pot sherd (*ibid.* 20-1). Trench 29 contained only a natural infilled hollow (*ibid.* 21).

The central area of the site contained Trenches 8 and 14-17, predominantly within an area of former buildings and hardstanding. Archaeological deposits were chiefly encountered within the northern part of Trench 8, and comprised four broadly parallel ditches (aligned north-east to south-west) which yielded prehistoric and Roman pottery (*ibid.* 14). A fifth ditch was recorded following a north-west to south-east alignment, while to the south, a boundary ditch formed by three separate cuts or re-cuts yielded 27 sherds of Roman pottery (*ibid.*). Trench 14 contained an intact subsoil horizon and archaeological layers, as well as one pit and seven ditches (aligned either north-east to south-west or north-west to south-east); the latter yielded a small assemblage of Roman pottery (*ibid.* 16). Trench 15 revealed a single large ditch beneath a modern service trench (*ibid.*). Two hollows containing occupation deposits were recorded within Trench 16, the westernmost of which contained a Roman coin, pottery, CBM and animal bone. Two pits, jointly yielding two sherds of Roman pottery, were also recorded in this trench (*ibid.*). Features in Trench 17 included two east to west aligned ditches, one yielding a single sherd of Roman pottery, and a similarly aligned gully truncated by a small pit or posthole (*ibid.* 17).

The eastern area of the site contained Trenches 4-7, 9 and 10. Trench 4 contained a north-west to south-east aligned ditch, yielding a single sherd of Roman pottery (*ibid.* 12). A second possible ditch, aligned north-east to south-west, was present in the northern end of the trench (*ibid.*). Trench 5 contained a total of seven archaeological features, in addition to considerable modern disturbance (*ibid.* 12-3). A medieval lead token was recovered from one modern feature, while Roman pottery, including a single 3rd/ 4th century example, was recovered from two of three parallel (north to south aligned) ditches encountered (*ibid.*). Trench 6 revealed a series of features, including five north-east to south-west aligned ditches, one containing a Roman coin, and single north-west to south-east aligned ditch terminus (*ibid.* 13); two pits and a curvilinear gully were also identified. An unstratified Roman coin was recovered from the spoilheap (*ibid.*). Trench 7 was devoid of archaeological features (*ibid.* 14), while Trench 9 contained numerous features

including three ditches, aligned north-west to south-east (*ibid.* 14). Notable finds from Trench 9 included Roman and prehistoric pottery (*ibid.* 14-5). Trench 10 was positioned over a natural infilled hollow containing four prehistoric pot sherds (recovered from the basal fill; *ibid.* 15). A pit and two east to west aligned ditches were also present, one yielding a Roman coin and single pot sherd (*ibid.*).

The southern part of the site contained Trenches 11-13, 22 and 23. Trenches 11, 12, 13 and 23 were devoid of archaeological material. Although the features in Trench 22, located in the garden of *The Sycamores*, were 'unexcavated', an intact bronze bowl (*ibid.* 19 and 57, plate 1) was recovered. A former re-deposited chalk surface may also have existed to the north-west below the topsoil (*ibid.* 19). Nine Roman coins and a lead weight were recovered from the spoilheap.

MNL 608 (earlier excavation within the current site) (Figs. 2 and 4)

This site, measuring some 1150m² (Craven 2011, 5) is located in the area of the former hotel buildings. It was excavated in between August and September 2008 (*ibid.*) immediately following evaluation work adjoining nearby Skelton's Drove (MNL 598; below), at the request of Judith Plouviez (Archaeological Officer, Suffolk County Council). Demolition of the hotel buildings and the grubbing out of foundations had revealed a heavily truncated assortment of archaeological deposits, similar in date to evidence exposed by evaluation work adjacent to Skelton's Drove (MNL 598) and on the current site (Craven 2011, 47). Ephemeral prehistoric (early Bronze Age and late Bronze Age to middle Iron Age) evidence, including a crouched inhumation and Beaker, was indirectly superseded by a complex of ditches spanning the Romano-British period (*ibid.* 47-8), whilst post-Roman activity was evidenced by sparse, intrusive finds (*ibid.* 48).

Land adjoining Smoke House Inn and Skelton's Drove (MNL 598), 70 The Street (MNL 589) and 68 The Street (MNL 243) (Figs. 2 and 4)

An archaeological evaluation was carried out in 2008 on 5.1ha of land adjoining Skelton's Drove (MNL 598), immediately to the east of the former Smoke House Inn. The work identified a substantial phase of late Iron Age/ Romano-British occupation (Craven 2008, ii). Of the 28 evaluation trenches, 14 contained archaeological deposits (*ibid.* 6). Trenches 1-4, 18 and 25 revealed a dense assortment of features forming a network of ditches and scattered pits, clearly contemporary to the settlement landscape exposed at the Maltings (MNL 502, above; *ibid.*). An absence of features in the southern trenches indicated a probable south-eastern boundary to this occupation area (*ibid.*). A north-west to south-east aligned ditch, present in Trenches 18 and 28, yielded a single sherd of Roman pottery, while three sherds of pottery were recovered from Trench 20, in addition to an articulated juvenile pig (*Sus scrofa*) skeleton of probable medieval/ post-medieval date (*ibid.* 10 and 23). The evaluation also identified sparsely scattered undated features, some possibly medieval or later in date (*ibid.* 24).

A subsequent archaeological excavation was conducted across 1.3ha in the northern half of the Skelton's Drove site (Craven 2011, summary). Work identified a low-level scatter of early prehistoric material (*ibid.* 25-6) amidst elements of the surviving natural topography of dunes and hollows (see Section 3.1). The latter were thought

to represent elements of the pre-Roman fen-edge landscape (*ibid.* 103). The early Iron Age comprised the first formal occupation phase, encompassing an assortment of cut features, although the Iron Age pottery assemblage was predominantly made up of residual material from Romano-British contexts (*ibid.* 25-6). The Roman period was the main phase of activity, which appeared to peak during the 2nd to 3rd centuries AD (*ibid.* 26). A principal activity area, dated to the late Iron Age/ early Romano-British period, had been later delineated by a large boundary ditch (*ibid.* summary). Three tentative structures were located to the north of this boundary (*ibid.*). The finds assemblage was representative of rural occupation and agricultural activity (*ibid.*).

A 2007 programme of archaeological monitoring and recording at 70 The Street (MNL 589) identified a pair of north-west to south-east aligned ditches (Caruth 2007, 2). One ditch was dated to the Romano-British period and the other was stratigraphically later; these probably represented continuations of features identified at the Skelton's Drove site (MNL 598). At 68 The Street (MNL 243), just to the south-west of the latter, an inhumation(s) with glass bead necklace and bronze finger rings was found during building works (after Craven 2010).

The PIK Housing site (MNL 570) (Figs. 2 and 4)

An archaeological evaluation was carried out in 2006 across 0.97ha of land on Washington Street (the PIK Housing site; MNL 570), immediately to the south-west of the former Smoke House Inn (Craven 2006). Twelve trenches were excavated, revealing evidence of late Iron Age and Roman occupation (Trenches 2-4 and 8-12), principally comprising ditch systems and occasional pits. A possible cremation was found in Trench 10. The high level of activity encountered was thought to represent a continuation of the settlement landscape identified at the Maltings (MNL 502), to the north-east (Craven 2006, 2; above). Once again, the evaluation revealed a peat-filled hollow, typical of the local fen-edge landscape (*ibid.* 4). There was no indication of any recent waterlogging and the peat deposits were desiccated and of limited potential for environmental analysis (*ibid.*).

An archaeological excavation was carried out at the PIK Housing site in 2007 (SCCAS 2012). The excavation revealed substantial evidence of late Iron Age/ early Roman activity related to that at the nearby Maltings (MNL 502; *ibid.*). Recorded features chiefly comprised elements of intercutting ditches and occasional pits. A single male inhumation was present in one late Iron Age/ early Roman ditch and part of a male skull came from another ditch of later Roman date (*ibid.*). Owing to the lack of structural evidence and the high number of linear features, the site was interpreted as representing part of a broader agricultural landscape close to possible nearby settlement (*ibid.*).

Holmsey Green Road (MNL 619), 65 The Street (MNL 576) and the USAF Photographic Utility (MNL 508)

Two further archaeological evaluations have taken place on sites fairly close to the former Smoke House Inn. Trial trenching was carried out on 0.76ha of land adjoining the south side of MNL 598 (the Skelton's Drove site), approximately 200m south-east of the current site, adjacent to The Street and Holmsey Green Road

(MNL 619; Craven 2009; Fig. 4). A small number of features were identified as prehistoric or Roman, which were similar to the widely dispersed features seen in the southern evaluation trenches of MNL 598, indicating only limited activity on the fringes of the main areas of prehistoric and Roman occupation (the Maltings site (MNL 502) and the former Smoke House Inn (MNL 618)). To the south of Holmsey Green Road, a 0.69ha area at 65 The Street was also subject to archaeological evaluation (MNL 576). Colluvial deposits up to 1.1m deep were present over much of the site, sealing post-medieval pits and ditches identified in four out of ten trenches; a single sherd of medieval pottery was recovered (Everett 2007). A watching brief at the USAF Photographic Utility (MNL 508), to the south of the former Smoke House Inn, identified features including a ditch and two pits but recovered no finds.

Additional sites¹

Prehistoric: 500,000 to 700 BC

Further to the above sites, a fairly large number of prehistoric sites exist close to the historic fen-edge (Fig. 4). The highest concentration was recorded during the Fenland Survey in an area around Rhedshore Farm, approximately 500m north-north-west of the former Smoke House Inn. A patch of burnt flint was found at the site close to a Bronze Age lithic scatter including quern fragments, scrapers, a barbed and tanged arrowhead and early Bronze Age grog tempered pottery (MNL 408a and 408b). A further scatter of Bronze Age worked flint (MNL 201) was found c. 700m north of the current site. Prehistoric finds have also been made to the west in the area of RAF Mildenhall. An archaeological evaluation c. 1km to the south-west identified seven ditches and three pits; one of the latter was prehistoric (MNL 526).

Iron Age: 700 BC to AD 43

The distribution of Iron Age sites is similar to the earlier prehistoric (Fig. 4). Early Iron Age settlements and burials were identified over 1km to the south-west of the former Smoke House Inn during car park improvements at RAF Mildenhall (MNL 491a). An archaeological evaluation during the construction of a carwash in the same area identified sequences of ditches and pits, and a possible late prehistoric occupation layer (MNL 596a). Along the fen-edge, scatters of Iron Age pottery have been reported from the early Bronze Age occupation site of Rhedshore Farm (MNL 408c), and further to the north beyond Beech Drove (MNL 129a).

Romano-British: AD 43 – 410 (Fig. 4)

Extensive scatters of Roman pottery, CBM and occasional other finds have been reported to the north of the Maltings site (MNL 502), extending towards Mildenhall fen-edge and indicating a continuation of the Romano-British settlement landscape away from the current site (MNL 065d, 066, 078b, 096c and 129b). There is also evidence for large scale settlement across a 3.7ha site at Washington Square, c.

¹ Figure 4 shows the distribution of various site types surrounding the former Smoke House Inn

1km to the south-west of the current site. The earliest phase comprised numerous re-cut ditches on a north-east to south-west alignment, representing a sequence of late Iron Age/ early Roman enclosures interspersed with possible water holes (MNL 639). Three subsequent phases saw an apparent shift in the alignment of the enclosures, one of which was associated with an extensive field system. Large quantities of refuse, mainly comprising 3rd to 4th century Roman pottery, indicates that people were living on or very close to the site, while four crouched burials, including at least one of Roman date, were also found. This site was thought to be part of the same settlement identified in excavations at Heritage Park (MNL 532). Roman activity and burials were identified continuing on from the Iron Age site at RAF Mildenhall (MNL 491b). Abundant evidence of large scale Roman occupation has been reported beneath buildings at RAF Mildenhall (MNL 505, 509, 524, 596b and 610).

Medieval: AD 1150 to 1500

Together, Holywell Row and Wild Street form the historic core of Beck Row (MNL 576) and colluvial deposits sealing medieval finds have been identified at 65 The Street (MNL 675). However, medieval finds from around the former Smoke House Inn are sparse; only Trenches 9 and 25 of the earlier evaluation (MNL 618) yielded medieval material (Craven 2009, 14 and 20).

3.3 Beck Row and the broader Romano-British landscape

It is clear from the above (Section 3.2) that the Romano-British period witnessed the apex of past settlement activity around Beck Row. As such, it is important to briefly review the regional Romano-British evidence in order to better understand the current site within its broader social and economic context. Particular emphasis is given here to the Wash Fenlands, a regionally key economic resource during the Romano-British era. Geologically (Section 3.1), the site of the former Smoke House Inn sits close to the junction of two distinct zones with the chalky soils of the Sandlings and Breckland to the south and east giving way to the wet peaty soils of the Fenlands to the north and west (Martin 1999a, 20-1). This location comprises the interface between chalk bedrock, predominant across much of Suffolk, and the older clays and greensand underlying the fen-edge/ skirtland and Fenlands proper (Wymer 1999a, 16-7; Wymer 1999b, 18-9). The confluence of these zones and the contrasting ecological environments they help to define would have offered a broad resource base for Romano-British settlement with cereal cultivation possible on the higher, drier ground and grazing along the fen-edge (and seasonally within the fens), supplemented by a range of natural/ wild resources (Davies 2009, 194; Gurney 1986a, 48, 147; Thirsk 2002, 171; see below). Evidence of salt production is also abundant within the northern Fenlands (Galloway 1983, 26; Gurney 1986a, 144). The obvious attraction of the fen-edge has long been recognised as an important regional characteristic of Romano-British settlement (Gurney 1986a, 147; Pevsner and Wilson 2002, 35), with many sites positioned to exploit this diverse landscape (Gurney 1986a, 147).

The established pattern of Romano-British settlement along the fen skirtland is one of dispersed villas or rich farms, perhaps even private estates (Salway 2001, 435), separated by substantial tracts of agricultural land (Gurney 1986a, 1), the latter

remaining largely unexcavated. In Norfolk, although scattered rural settlements are ubiquitous, it is only in the far west of the county, along the route of the Icknield Way (close to the fen-edge) that substantial villas occur in any number (Pevsner and Wilson 2002, 35). An example of such was excavated at Feltwell, some 13.5km to the north of Beck Row. This site comprised a modest 'corridor'-type structure and associated bath-house located between the fens and chalk upland (Gurney 1986a, 2). Although simply furnished, the complex is thought to represent a 'cottage-type' (masonry-built) villa at the centre of a larger agricultural estate (Gurney 1986a, 1, 45, 46), with finds including elephant ivory alluding to a high degree of material prosperity, at least in the later Roman period (Gurney 1986a, 47). This settlement pattern persists to some extent in Suffolk (Plouviez 1999, 42-3); the location of a possible villa at Thistley Green (MNL 064), some 2km to the south-west of Beck Row, fits this distribution well and may represent the centre of an agricultural estate to which the current site belonged. However, the reported location of a tessellated Roman floor (MNL 487), approximately 3.6km to the south-east of Beck Row, is suggestive of other high-status buildings in the vicinity. Taylor (2011, 190) states that rural British villas are usually associated with landscapes that 'saw large scale facilities for the processing, storage and display of arable surpluses'. This fen-edge villa landscape, although densely settled and prosperous, is thought to have been periphery to a (possible) imperial Fenland estate, the suggested western limit of which was Car Dyke near modern Peterborough (Whitwell 1982, 124).

Since the early work of Stukeley (1776; after Hall and Coles 1994, 121) and Richmond (1955, 130-1), subsequently developed by Salway (1970; after Millett 1992, 120), the Roman Fenlands have been traditionally considered an imperial estate. *The Victoria History of the County of Cambridgeshire and the Isle of Ely* (Salzman 1938, 3) also makes reference to this system of landholding. Extending from Denver, Norfolk, into Lincolnshire and west to Car Dyke in Cambridgeshire (Fincham 2004, 16; Whitwell 1982, 124; Fig. 4), drainage works associated with this estate are thought to have been instigated by the Emperor Hadrian on his visit to Britain in c. AD 122 (Burnham and Watcher 1990, 39; Jones 1998, 200; Potter 1996, 678). However, although the origins and extent of the 'estate' are generally agreed, its administrative centre has proved more ambiguous. While some favour the fen-edge towns of *Dvrovigtvm* (Godmanchester) or *Durobrivae* (Water Newton; Burnham and Watcher 1990; 38-9), others suggest the southern Fenland site of Stonea near March (Hanley 2000, 37; Hall and Coles 1994, 121; Potter 1996, 686; Upex 2008, 189; Fig. 4). An alternative interpretation of the latter is that the site, which includes the remains of a substantial tower, represents a sanctuary or Romano-Celtic temple complex dedicated to the goddess Minerva (Gurney 1986a, 92; Malim 2005). Although recent work largely rejects the concept of an all-encompassing imperial or otherwise private landholding dominating this landscape (Fincham 2004, 16), the Fenlands portray certain characteristics often associated with Roman state control.

Foremost is the fact that all *virgin* land was automatically the property of the emperor (Millett 1992, 120). An inscription reading *public[um]* or 'public property' was found at Sawtry, Cambridgeshire, where Ermine Street passes closest to the Fens, and is thought to refer to the division of private and public land (Cook and Williamson 1999, 114). Furthermore, it is unlikely that the monumental task of draining and managing the Fens, thus reclaiming land that had not been settled for some five centuries, was

'undertaken piecemeal' (Parker and Pye 1976, 26). Salway (1970) argues that the magnitude and complexity of the scheme, both in terms of drainage and infrastructure was indicative of government intervention (after Millett 1992, 120). The Car Dyke, for example, ran along the western fen-edge for some 140km between the Rivers Ouse and Witham, retaining runoff from the chalk uplands and channelling it in to the sea (Wacher 2000, 122). The Northernmost stretch of this dyke or canal, between the River Nene and Lincoln, is thought to have been navigable (Newton and Peachey 2012, 145). The marginalisation of villas to the Fen skirtlands has also been seen as supporting the existence of a Fenland imperial estate (Hall and Coles 1994, 121), with settlement within the Fens proper (bar the substantial site at Stonea; above) being limited to dispersed, possibly leased, farmsteads (Millett 1992, 120). A plausible alternative to umbrella imperial jurisdiction however, is that part of the Fenland was held as *ager publicus*, being occupied by the native British population in exchange for taxes and/ or rents in the form of necessary commodities (Mattingly 2007). Conversely, the creation of an imperial estate may have been in direct response to the Boudiccan uprising of AD 60/ 61, being imposed as a means of subduing the local dissident populous. Cunliffe (1973, 447) makes a similar case for Cranbourne Chase in Wiltshire (after Hostetter 1997, 377).

Whatever the system of landholding in the Roman Fenland, the area certainly comprised an essential resource base. While seasonal exploitation of the fens for grazing is widely suggested, others, e.g. Drummond and Nelson (1994, 93), see animal husbandry as the primary economic function of this landscape, with the Fenland villages acting [in part] as bases for meat processing and packing. Salt production, widely attested in the northernmost reaches of the fens on sites including Denver (Gurney 1986a, 93ff; Fig. 4), is widely considered an imperial monopoly (Hanley 2000, 37; Millett 1992, 120), and would have been essential to large-scale meat and/ or fish preservation, and for the tanning industry (Davies 2009, 194; Upex 2008, 178). The role of salt in cheese making has also been noted in appraisals of the regional Romano-British economy (Upex 2008, 178). Any system of animal husbandry likely predominated during the wetter conditions of the 3rd and 4th centuries, while cereal agriculture would have been better suited to the drier climate prevailing during the early Romano-British period and into 2nd century (Upex 2008, 178). Spelt wheat was the predominant regional crop (e.g. Ballantyne 2004, 200; Fryer 2004, 50; Stevens 2009a, 110) and would have been broadly cultivated at this time (Galloway 1983, 26). Some believe that the Wash Fenlands represented an important source of grain for military forces in northern Britain (Galloway 1983, 26). The Fens would also have offered a wide variety of natural/ wild resources such as fish (including eels), wildfowl, reeds and peat (Davies 2009, 194; Gurney 1986a, 48; Salway 2001, 435; Upex 2008, 178).

Appreciating the potential role of fen-edge sites in the coordination and utilisation of Fenland resources is of some importance, especially when considering the location of the current site. Whatever the principal economic forces at play within the Fens, peripheral sites are likely to have played some part in them, for example, in the overwintering and/ or processing of livestock or the processing and storage of cereal grains. The possible 'maltings' (MNL 502; Bales 2004) to the immediate north of the current site is a prime example of cereal processing on an industrial scale. Even if not economically integrated to such an extent, fen-edge sites must have made some use of the wetland landscape next to which they were so deliberately sited.

Together with Roman engineering expertise, dryer and warmer climatic conditions during the first two centuries following the Conquest facilitated the settlement and exploitation of the Wash Fenlands (Jones 1998, 200; Pevsner and Wilson 2002, 35). However, a recorded rise in water levels from the mid-3rd century has been linked to a retraction of Fenland settlement, and by the end of the Roman period this area was in decline (Stevens 2009b, 84, after Potter 1981, 132). Higher water levels were likely due to increased river silting, perhaps resulting from deforestation, and shifts in the 'relative level between sea and land' (Jones 1998, 200). Drainage schemes are thought to have been inadequate to deal with the runoff from increased precipitation, and may actually have exacerbated the situation by undermining natural drainage systems (*ibid.*). It appears that many Fenland sites were abandoned after only a short period of use (*ibid.*).

The clay uplands to the west of the fens were also subject to Romano-British settlement, with excavations at sites like Lower Cambourne (Wright *et al.* 2009), some 40km west-south-west of Beck Row, adding considerably to our knowledge of rural settlement and economy at this time. Unlike Roman Suffolk however, although chiefly agricultural, this area also boasted larger urban centres including the walled town of *Durobrivae* (Water Newton), on Ermine Street in the lower Nene Valley (Upex 2008, 61ff).

A rural settlement pattern, albeit less dominated by villas, continued to the east of Beck Row. In contrast to neighbouring Norfolk, Roman Suffolk did not contain any large urban centres, but rather a network of smaller, essentially unplanned towns, doubtless serving as economic hubs for surrounding rural communities (Plouviez 1999, 42). The nearest of these to Beck Row is Icklingham, approximately 9km to the south-east. This roadside settlement, defined chiefly by non-intrusive survey, comprises evidence of plot boundaries, pits and general disturbance, surrounded by field systems and trackways (IKL 167). A comparable settlement existed at Pakenham, some 23km to the south-east of the current site, which includes the site of a camp or fort to the north of Pakenham Windmill (PKM 005). Roman roads are also reported in the area (PKM 032 and 033). Excavations at Pakenham and the contemporary Roman towns of Hacheston, Coddensham and Scole have revealed evidence of brewing, potting and the metallurgical industries (Plouviez 1999, 42). The greatest concentrations of pottery production sites, however, are around the modern villages of Rickingham and Wattisfield (*ibid.*), respectively c. 35km and 30km to the east-south-east of Beck Row. The centre of the Horningsea pottery industry (centred on NGR TL 497 635; Evans 1991, 33; Newton and Peachey 2012, 143-4) lies across the Fenlands c. 24km to the south-west of the current site.

4 DESCRIPTION OF RESULTS

Introduction

In the event the excavation revealed a complex Romano-British agricultural landscape dating from the late 1st/early 2nd centuries AD, as well as more ephemeral evidence of other periods. The latest Roman activity appears to date to the mid to late 4th century+. Seven chronological sub-phases of Roman occupation have been interpreted based on the recorded stratigraphy and an evaluation of the datable

pottery assemblage. The Romano-British Period (Period II) was preceded by a comparatively poorly represented prehistoric phase (Period I) and was succeeded, indirectly, by sparse medieval/ post-medieval evidence (Period III). A summary of the phasing is presented in Table 1.

Chronological Phase	Sub-Phase	Date
Period I (pre-Roman)		c. 2100 BC to AD 43
Period II (Romano-British)	Roman Sub-Phase 1	Late 1 st – early 2 nd century AD
	Roman Sub-Phase 2	Early – mid/ late 2 nd century AD
	Roman Sub-Phase 3	Late 2 nd – early 3 rd century AD
	Roman Sub-Phase 4	Early – mid-3 rd century AD
	Roman Sub-Phase 5	Mid-3 rd – early 4 th century AD
	Roman Sub-Phase 6	Early – mid/late 4 th century AD
	Roman Sub-Phase 7	Mid – late 4 th century+ AD
Period III (post-Roman)		c. AD 1150 – 1750

Table 1: Chronological phasing

4.1 Period I (pre-Roman)

Summary

Prehistoric activity at the former Smoke House Inn (Figs. 5-10) was represented by features dating broadly to the Bronze Age and Iron Age (c. 2100 BC to AD 43). Some features that did not contain diagnostic material were assigned to this phase based on their stratigraphic relationships and/ or their similarities to/ location in respect of dated features. Pre-Roman features were found scattered across much of the site, predominantly in the northern, south-eastern and south-western quadrants. A single prehistoric gully (F3572) was also identified in the western quadrant. Much pre-Roman evidence had undoubtedly been lost, however, due to truncation by later features and/ or post-medieval and modern (predominantly agricultural) activity (cf. Craven 2009, 5). In addition to scattered linear features, including parts of at least two tentative enclosures, Period I contained a fragment of ring-ditch, representing a possible roundhouse (Structure 1), a possible four-post structure (Structure 2) and a cluster/ alignment of pits and postholes.

Period I ditches and gullies

Bar those associated with Structure 1 (below), eleven ditches and gullies were assigned to Period I (Table 2). Of these, four were datable to the Bronze Age (F3891 (Grid Square L7 & M7-M8)), Bronze Age/ Iron Age (F1675 (Grid Square N18-N19)) or Iron Age (F3572 (Grid Square G3 - G4) and F3363 (Grid Square Q10-R10)). North-west to south-east aligned Ditch F1675 appeared to be a recut of earlier Gully F1677 (Grid Square N19) and formed a possible enclosure (?Enclosure 1) in the northern quadrant with Gully F2651 (Grid Square P18), which ran perpendicular to the former c. 9m to the east (Fig. 7). Both features displayed shallow, concave profiles and contained similar fills. Ditch F1675 yielded one sherd (10g) of Bronze Age/ Iron Age pottery and trace animal bone.

A second possible enclosure (?Enclosure 2) was identified approximately 42.5m south-south-west of ?Enclosure 1. ?Enclosure 2 comprised Ditch F1304 (=1447; Grid Square K14-L15 & L15-L14) which ran c. 15m north-east to south-west (partly extrapolated) across the northern quadrant before making a broad south-eastward turn and continuing for c. 4m (Fig. 8). The orientation of this enclosure roughly

matched that of ?Enclosure 1 and they may have originally formed part of a continuous enclosure system. The fill of F1304 (=1447; L1305) was not dissimilar to material recorded from F1675 and F2651 and the profile of this ditch was also partly comparable. F1304 (=1447) cut earlier Ditch F1585 (Grid Square K15-L15; aligned north-west to south-east) close to the northern corner of the 'enclosure' (Fig. 8). The matching orientations of Ditch F1585 and the short returning section of the enclosure ditch suggests that the latter may have represented a recut of an earlier boundary on the same alignment; this interpretation is tentative however. The only material from F1304 (=1447) comprises 22g of animal bone.

Feature	Type	Grid Square	Orientation	Size (m)	Plan	Profile	Base
1304=1477	Ditch	K14-L15 & L15-L14	NE-SW & NW-SE	7.99 x 0.73 x 0.45	Linear	Steep	Flat
1585	Ditch	K15-L15	NW-SE	2.77 x 2.4 x 0.23	Linear	Moderate	Concave
1590	Gully	K15-K16	NNW-SSE	0.69 x 0.38 x 0.13	Linear	Moderately steep	Concave
1675	Ditch	N18-N19	NW-SE	3.27 x 0.72 x 0.12	Linear	Moderate	Concave
1677	Gully	N19	N-S?	0.98 x 0.75+ x 0.05+	Linear	Moderate	Concave
2651	Gully	P18	NW-SE	>2.00 x >0.20 x 0.12	Linear	Moderate	Concave
3363	Gully	Q10-R10	Unknown	9.09 x 0.36 x 0.10	Linear	Gentle	Concave
3572	Gully	G3-G4	N-S	7.60 x 0.64 x 0.41	Linear	Steep	Flat
3891	Gully	L7 & M7-M8	NNE-SSW	12.87 x 0.30 x 0.10	Linear	Steep	Concave
3998	Gully	L8-M8	WSW-ESE	12.99 x 0.20 x 0.10	Linear	V-shaped	Concave
4030	Gully	K8	E-W?	3.00 x 0.53 x 0.20	Linear	Moderately steep	Concave

Table 2: Period I ditches and gullies

The only other stratigraphically related linear features assigned to Period I were Gullies F3891 (Grid Square L7 & M7-M8) and F3998 (Grid Square L8-M8). Gully F3998 ran roughly west-south-west to east-north-east across the south-western quadrant and cut F3891 which was oriented north-north-east to south-south-west (Fig. 5). F3891 yielded two sherds (20g) of Bronze Age pottery, while F3998 was devoid of finds. It is likely that these features were related, possibly forming a remnant of enclosure/ field boundary.

The remaining Period I linear features, comprising Iron Age Gullies F3363 (Grid Square Q10-R10) and F3572 (Grid Square G3-G4) and less closely dated Gullies F1590 (Grid Square K15-K16) and F4030 (Grid Square K8) were comparatively isolated (Fig. 5). F4030 was cut by Pit F4028 (Grid Square K8) but the precise nature of their relationship remains unclear. The fills of the two Iron Age gullies (F3363 (L3364) and F3572 (L3574)) each yielded two sherds of pottery, while the former also contained trace animal bone. Gully F3572 ran north to south across the south-eastern corner of the western quadrant (Fig. 5) and was the westernmost pre-Roman feature identified at the site. The orientation of this isolated gully was distinct from other Period I linear features.

More complete examples of prehistoric enclosures were identified in Periods II (Iron Age) and III.1 (late Iron Age and Roman occupation) at the nearby Maltings site (MNL 502; Bales 2004, 8, fig. 4 and 10, fig. 5). Similar features were also found at Skelton's Drove (MNL 598), and at lesser sites in the immediate area, e.g. Catchwater Drain (MNL 479; Caruth 1996, 14, 34). It is highly likely, based on their shared orientation and proximity to similar local features, that ?Enclosures 1 and 2 at the current site comprised discrete elements of a once continuous 'system' of later prehistoric boundaries directly related to the more complete Iron Age landscape identified to the north. No obvious continuation of ?Enclosure Ditch F1675 was

obvious at the Maltings site, a *short distance* to the north-west of this feature (see Craven 2011, 10, fig. 5).

Ring-Ditch F4032 (Structure 1)

A short section of curvilinear ditch (F4032; Table 3), displaying steep sides and a flat base, was encountered in the south-western quadrant of the site (Fig. 7). Extrapolated, this feature had a diameter of c. 5.5m and may have tentatively represented the remains of a roundhouse drip-gully or barrow. A pair of postholes (F4096 and F4098; Grid Square J8; Table 3) were located within the projected area of the 'ring-ditch', c. 1.5m to the north of heavily truncated Period I Gully F4034 (Grid Square J8). The relationship of the latter to F4032 remains unclear. Although encompassed by Ditch F4032, the postholes did not appear to be in any way structural, nor did they resemble primary deposits that one might associate with a prehistoric funerary monument (below). However, both postholes and Ditch F4032 contained similar fills and it is possible that they were contemporary. No further deposits, domestic, funerary or otherwise, were found associated with F4032 and the fill of this feature (L4033) yielded only a single sherd (4g) of intrusive Roman pottery and trace animal bone.

Feature	Type	GS	Orientation	Size (m) ²	Plan	Profile	Base
4032	Ring-Ditch	J8-K8	Curvilinear	7.90 x 0.35 x 0.22	Curvilinear	Steep	Flat
4096	Posthole	J8	-	0.16 x 0.030+ x 0.13	Circular	Steep	Flat
4098	Posthole	J8	-	0.24 x 0.17 x 0.12	Oval	Steep	Concave

Table 3: Structure 1 and associated features

Possible four-post structure (Structure 2)

A single cluster of five postholes (Table 4) was found in the northern quadrant of the site (Grid Square M18 & N18-N19), immediately south-west of Period I Ditch F1675 (Fig. 6). Two of the postholes (F1779 and F1781) were intercutting, one apparently superseding the other, perhaps representing the replacement or resetting of the associated post. The features conformed to a quadrilateral arrangement, c. 1.5m x 3.5m, thought to possibly represent the footings of a prehistoric four-post structure (Structure 2). Such structures are generally accepted as having comprised raised store houses intended to protect perishable commodities such as grain, dairy products and dried meat/ fish from moisture and rodent attack (Cunliffe 2010, 411; Cunliffe and Poole 1991, 115).

Feature	GS	Size (m)	Plan	Profile	Base
1779	M18	0.23 x 0.20 x 0.11	Oval	Moderate	Concave
1781	M18	0.30 x 0.28 x 0.07	Oval	Moderate	Concave
1783	M18	0.32 x 0.30 x 0.31	Oval	Very Steep	Flat
1785	N19	0.32 x 0.31 x 0.12	Oval	Moderate	Flat
1787	N18	0.43 x 0.38 x 0.21	Oval	Moderate	Concave

Table 4: Structure 2

Linear pit cluster

A linear cluster of pits and postholes (Table 5; Figs. 6-7) was encountered towards the south-eastern edge of the site. This cluster comprised 15 features in total, split

² Feature dimensions are given throughout this report as *length x width x depth*

into two, loose sub-groups and following a north-east to south-west alignment. The features making up this cluster were varied in size, plan and profile and all but four lacked datable material. Pits F4320, F4322 and F4326, the south-westernmost features of the cluster (Grid Square T7; Fig. 6), were all shallow (between 0.15 and 0.22m) and contained similar individual fills. All three yielded Bronze Age pottery, the largest assemblage of which (14 sherds; 133g) was yielded by Pit F4320 (L4321). This feature also contained two pieces (108g) of struck flint and 8g of burnt flint. Pit F4977 (L4978; Fig. 7) yielded a single sherd (4g) of Bronze Age pottery and a one piece (1g) of struck flint. The only other features in this cluster to yield finds were Pits F4979 (Grid Square T8-U8), F5027 (Grid Square U8-V8) and F5075 (Grid Square U8), all of which contained trace quantities of struck or burnt flint. The only other notable feature in this group was Pit F5077 (Grid Square U8), the primary fill of which (L5079) – a firm, charcoal-rich silty sand – was interpreted on site as ‘fire waste’ (this material was not sampled).

Feature	Type	GS	Size (m)	Plan	Profile	Base
4200	Posthole	T7	0.80 x 0.75 x 0.33	Circular	Moderate	Flattish
4318	Posthole	T7	0.70 x 0.60 x 0.19	Circular	Moderate	Flattish
4320	Pit	T7	1.28 x 0.80 x 0.22	Sub-rectangular	Moderately steep	Flattish
4322	Pit	T7	0.69 x 0.44 x 0.15	Oval	Moderately steep	Concave
4326	Pit	T7	1.76 x 0.49 x 0.18	Oval	Moderate	Flattish
4979	Pit	T8-U8	0.60 x 0.40 x 0.25	Oval	Steep to vertical	Concave
4977	Pit	U8	0.70 x 0.60 x 0.16	Sub-square	Vertical	Flat
4984	Pit	U8	0.25 x 0.25 x 0.09	Circular	Moderate	Concave
4986	Pit	U8	0.58 x 0.54 x 0.19	Sub-circular	Vertical	Concave
4988	Pit	U8	1.05 x 0.94 x 0.58	Sub-circular	Very Steep	Flat
4991	Pit	U8	0.46 x 0.30 x 0.18	Sub-circular	Moderate	Concave
4993	Pit	U8	1.22 x 0.56 x 0.31	Oval	Vertical	Concave
5027	Pit	U8-V8	1.75 x 0.45 x 0.28	Oval	Steep	Concave
5075	Pit	U8	0.95 x 0.82 x 0.46	Sub-circular	Steep	Concave
5077	Pit	U8	0.51 x 0.44 x 0.21	Circular	Steep	Concave

Table 5: Period I pit cluster

Similar early Bronze Age pit clusters have been reported from Church Hill, Saxmundham, Suffolk (Newton forthcoming), where the excavated evidence suggested intermittent or seasonal ‘occupation’ by one or more groups of individuals. Unlike Beck Row, the Saxmundham features included pits containing Beaker pottery (*ibid.*). Like Pit F5077 however, the Saxmundham features also included possible fire pits (*ibid.*). Nearer to the current site, 11 mid to late Iron Age pit clusters were recorded at Ingham Quarry Fornham St Genevieve (Newton and Mustchin forthcoming). Pit Cluster 1 from this site comprised a north-east to south-west alignment of seven pits and parallel outliers (*ibid.*). Their size, form and, in some cases, their fills suggested that many of the Ingham pits were used for the subterranean storage of grain; none appeared to contain ‘special’ or curated deposits of any kind (*ibid.*). Such large pits have long been considered characteristic of the southern British Iron Age (Cunliffe 1992, 69; Reynolds 1979, 71) and, since the early work of Bersu (1940), whose findings were corroborated by subsequent experimentation (Reynolds 1979, 74-76), have been generally considered to represent subterranean grain stores (after Newton and Mustchin forthcoming). Grain storage pits usually have flat bases and vertical or bell-shaped sides (e.g. Cunliffe 2010, 412, fig. 16.2). The form and size of Pits F4988 and F5075 (Table 4; Fig. 7) was reminiscent of such features, though no further evidence of a storage function was apparent. It cannot be discounted, however, that evidence of grain was entirely removed from these pits prior to their abandonment and backfilling.

Isolated Bronze Age Pit F4303

The remaining Bronze Age pit (F4303; Grid Square K9 and K10-L10; Table 6; Fig. 5) was relatively isolated, lying approximately 12m south-south-west of its nearest Period I neighbour (Iron Age Pit F4570; Grid Square L11). Finds from the primary fill of F4303 (L4531) include two sherds (105g) of pottery and one piece (5g) of struck flint; subsequent fills were devoid of finds. This pit did, however, yield 3468g of animal bone, the largest amount (by weight) yielded by any Period I feature, and the only Bronze Age faunal assemblage of any size. This comprises elements of cattle (*Bos taurus*), horse (*Equus caballus*), sheep/ goat (*Ovis aries/ Capra hircus*), red deer (*Cervus elaphus*) and large terrestrial mammal³, and includes evidence of butchery and canid gnawing (Cussans 2012). Furthermore, environmental sampling of L4531 recovered cereal grains and fragments of cereal (oat (*Avena* sp.) and wheat/ barley (*Triticum/ Hordeum* sp.)) awn, as well as a small number of likely arable weed species (Summers this report). The finds and environmental evidence from Pit F4303 suggest the disposal of possible agricultural/ domestic waste, though its relatively large size might indicate a different primary function for this feature; possibly quarrying.

Feature	GS	Size (m)	Plan	Profile	Base
4303	K9 & K10-L10	3.45 x 2.31 x 0.37	Oval	Steep	Flat

Table 6: Isolated Bronze Age Pit F4303

Possible late Bronze Age/ early Iron Age pit pair

Shallow (0.30 to 0.36m) Pits F3387 (Grid Square R9-R10) and F3527 (Grid Square Q8; Table 7) were found c. 15m apart in the south-western site quadrant (Fig. 6). Both were sub-circular in plan with steep sides and concave bases, and both contained similar fills. Finds from these features include small quantities of pottery, collectively spanning the late Bronze Age to early Iron Age (43g in total), while Pit F3387 also contained a single pig (*Sus scrofa*) jaw fragment (Cussans 2012). The small number of finds from these features precludes speculation regarding their function(s), though their morphological similarity suggests that they were related in some way.

Feature	GS	Size (m)	Plan	Profile	Base
3387	R9-R10	1.40 x 1.28 x 0.30	Sub-circular	Steep	Concave
3527	Q8	1.20 x 0.72 x 0.36	Sub-circular	Steep	Concave

Table 7: Possible late Bronze Age/ early Iron Age pit pair

Remaining Iron Age pits

Pits F4506 (Grid Square K11) and F4570 (Grid Square L11; Table 8) were located 9.5m apart in the south-western quadrant. F4506 formed part of a c. north to south aligned trio of similar features with Pits F4502 and F4522 (Grid Square K11). However, the fill of F4506 (L4507) was dissimilar to the fills of both F4502 (L4503) and F4522 (L4523). Pit F4506 was also the only one of the three to produce notable finds, comprising 2020g of animal bone and six sherds (259g) of middle Iron Age pottery. The faunal assemblage comprises elements of cattle, horse, pig, large

³ Not identifiable to species (cattle/ horse sized)

terrestrial mammal and medium terrestrial mammal⁴, and includes evidence of canid gnawing (Cussans 2012).

Larger Iron Age Pit F4570 (Grid Square L11) contained two consecutive fills (L4571 (primary) and L4572 (secondary)), the earlier of which yielded 1348g of animal bone, nine sherds (356g) of Iron Age pottery and 105g of burnt stone. Besides pig and large terrestrial mammal, the faunal assemblage from L4571 comprises an almost complete cattle skull displaying evidence of canid gnawing and butchery around the base of the horncores and on the frontal bone (from skinning) (Curl and Cussans this report; Cussans 2012). It is possible that this represents a special or ritualistic deposition, or perhaps the straightforward disposal of an economically poor skeletal element. Environmental sampling of L4571 also yielded charcoal fragments (>2mm) and trace heather charcoal, though economically significant floral remains were absent (Summers this report).

Feature	GS	Size (m)	Plan	Profile	Base
4506	K11	0.70+ x 0.75+ x 0.45	Oval	Moderate	Concave
4570	L11	2.20 x 1.20+ x 0.98	Oval	U-shaped	Flattish

Table 8: Other Iron Age pits

Remaining Period I pits

The remaining Period I pits (F4028 (Grid Square K8), F4474 (Grid Square K9), F4610 (Grid Square S14-T14), F4967 (Grid Square T11) and F5136 (Grid Square U9 - V9)) were broadly dispersed across the northern, south-eastern and south-western quadrants and were mostly isolated; F4028 cut earlier Gully F4030. None of these features yielded pottery and only Pit F4474 yielded finds of any note – a single end scraper (SF134) of possible earlier Neolithic date (Peachey this report). Pits F4474 and F4610 also yielded modest quantities of animal bone, including a naturally shed roe deer (*Capreolus capreolus*) tine from Fill L4473 displaying evidence of working (Curl and Cussans this report).

Layer L4525

Layer L4525 was the only context of its kind assigned to Period I. The original extent of this layer was obscured by later activity; it was 0.20m deep. L4525 was cut by Pit F4506 (Grid Square K11) and was tentatively phased based on this relationship. L4525 yielded no finds.

Foci of pre-Roman activity

Weights of Period I finds (pottery and struck flint) were plotted by area (Figs. 9-10) in order to identify potential foci of pre-Roman activity. Although limited by the small number of Period I features, this exercise appeared to highlight two distinct 'zones' of activity. The first of these, in the area immediately north of Structure 1 (Grid Square K9-K11) yielded modest levels of struck flint and an elevated weight of Iron Age pottery (from Pits F4506 (L4507; Grid Square K11) and F4570 (L4571; Grid Square L11)). It is possible that these finds allude to domestic activity, perhaps associated with nearby Structure 1.

⁴ Not identifiable to species (sheep/ pig sized)

The second area of note was around the linear pit/ posthole cluster in the south-eastern quadrant. Bronze Age Pits F4320, F4322 and F4326 yielded elevated weights of pottery and struck flint, the latter including a redeposited earlier Neolithic blade from F4320 and possibly *in situ* blade-like debitage from F4322 (Peachey this report). Due to the overall paucity of Bronze Age features, it is possible that this activity area resulted from a single episode of intermittent or seasonal 'occupation'.

Inter-site feature relationships

None of the Period I linear features appeared to relate to similarly dated ditches or gullies recorded on adjacent sites.

The nature of pre-Roman activity

The paucity of prehistoric features at the former Smoke House Inn site prevents any detailed analysis of human activity prior to the Roman Conquest, although evidence from neighbouring sites and further afield assists in forming a generalised picture of later prehistoric settlement and land use. ?Enclosures 1 and 2 at the current site, spaced c. 42.5m apart, may have formed part of a broader enclosure system. Similar systems are reported from neighbouring sites. At the Maltings site (MNL 502), a pair of north to south aligned Iron Age enclosures was found in association with possible circular structures (Bales 2004, 7-8, fig. 4). At least two late Iron Age/ early Romano-British ditched enclosures were also found at the Catchwater Drain site (MNL 479; Caruth 1996, 14, 34), a short distance to the west-south-west. The close proximity of the current site to the Maltings site raises the possibility that ?Enclosures 1 and 2 formed elements of a broader Iron Age agricultural landscape.

It is possible that the Iron Age ?enclosures would have been associated with livestock management and/ or the cultivation of crops. Although small, the Period I animal bone assemblage contains examples of all the major 'farmyard' ungulates, cattle, horse, sheep/ goat and pig (Curl and Cussans this report). The remains also attest to the butchery of carcasses, including skinning and the removal of horns from a cattle skull in Pit F4570 (*ibid.*). Furthermore, fragments of deer antler from Period I features, including evidence of working (*ibid.*), suggests the utilisation of non-domestic species. Although environmental sampling produced negligible evidence of pre-Roman cereal cultivation (Summers this report), the storage of grain or other plant-based foodstuffs is implied by the presence of Structure 2, a possible four-post store house or 'granary' within the northern site quadrant.

Further structural evidence comprised a possible Iron Age roundhouse drip-gully (F4032; Structure 1) in the south-western quadrant. In the absence of associated 'occupation' deposits, the interpretation of Structure 1 was based chiefly on the existence of comparable local and regional examples, including late Iron Age ring-ditch structures at the nearby Maltings site (Bales 2004, 7-8, fig. 4). A late Bronze Age/ early Iron Age post-built roundhouse was also found closer to the fen edge (MNL 536; Craven 2010, 57), less than 250m to the north of the current site. A possible focus of pre-Roman domestic activity was identified immediately to the north of Structure 1, indicated by elevated weights of pottery and struck flint recovered from Grid Squares K9-11 and L11.

Evidence of forerunning Bronze Age activity was limited to a small number of datable features, four of which were associated with a linear pit/ posthole cluster in the south-eastern site quadrant. These features comprised a second apparent focus of pre-Roman activity, chiefly evidenced by greater weights of pottery and struck flint from Pits F4320, F4322 and F4326 (Grid Square T7); the latter included residual Neolithic material. Pit F4320 yielded the largest Period I pottery assemblage (by sherd count and weight), comprising 14 Bronze Age sherds weighing 133g. The lack of associated occupation evidence, the small size of the pits/ postholes and the overall paucity of Bronze Age features, suggests that the cluster resulted from a single episode of transient, possibly seasonal activity. Pre-Bronze Age evidence was negligible.

4.2 Period II (Romano-British)

The Romano-British period at the former Smoke House Inn spanned the late 1st to late 4th centuries+ AD and comprised seven distinct chronological sub-phases (Table 1). A hiatus between the late Iron Age and early Roman occupation of the site is indicated by the pottery record (Peachey this report – *The prehistoric and Roman pottery*), although no such gap was reported at the neighbouring Maltings (MNL 502; Bales 2004). Period II features appeared predominantly agricultural in nature being foremost characterised by a series of complex, ditched enclosure systems. These rectilinear enclosures first appeared in the northern quadrant of the site with activity to the south and west developing later. The enclosures included a ‘ladder’ system and associated trackways dated to the mid-3rd to early 4th centuries AD, reminiscent of other regional/ national examples, which was in turn superseded by one very large and several smaller enclosures prior to the end of the Romano-British period.

Ten structures were assigned to Phase II, all of which appeared to form ancillary/ agricultural buildings, shelters or pens and were predominantly pre-Roman in form, possibly alluding to a lack ‘Romanisation’ within the local populace. This is no more apparent than in the occurrence of a possible 4th century roundhouse (Structure 10) in the western site quadrant. Other prehistoric structural forms included at least four post-built store houses or ‘granaries’ (Structures 4-7) located in the south-eastern quadrant and dated between the mid-3rd and late 4th centuries; such structures are more typical of late Iron Age sites (e.g. Cunliffe 2010, 411). The only clearly ‘Romanised’ structure encountered was a possible aisled building (Structure 3) dated to the early to mid-3rd century. Little evidence for the function of this building was forthcoming, although it may have been similar to the larger aisled buildings reported from the adjacent Maltings site (MNL 502; Bales 2004, 13ff).

The overwhelming majority of Period II environmental samples (74% representing all seven sub-phases) contained cereal remains (Summers this report – *The charred plant macrofossils and charcoal*). Wheat and barley grains predominated, along with lesser quantities of oat and rye, while other potential cultivars included flax from Roman Sub-Phases 2 and 6 and indeterminate large legumes from Roman Sub-Phases 1 and 6 (*ibid.*). Evidence of fodder crops was recovered from Roman Sub-Phase 3 and arable weed species were present throughout Period II (*ibid.*). The gathering of uncultivated foodstuffs was also evidenced while fuel wood species were present in the Period II charcoal assemblage (*ibid.*).

With the environmental evidence, the Period II animal bone assemblage attests to a mixed Romano-British agricultural economy in the local area. Cattle was the most prolific domestic species present throughout Period II, followed by sheep/ goat (with both species clearly identified) (Curl and Cussans this report – *The animal bone*). All three species represent viable sources of meat, while an increase in the number of juvenile/ neonatal ovicaprid remains in Roman Sub-Phase 6 may allude to an increased importance of dairying in the 4th century AD (*ibid.*). The economic importance of pigs also increased during the later Romano-British period, although the utilisation of this species for meat is indicated throughout (*ibid.*). The on-site breeding of cattle was evidenced and observable bone pathologies indicate the use of some individuals for traction (*ibid.*). Dog remains are ubiquitous and range in size from small, toy or ‘lapdogs’ to larger wolfhound-sized animals. The assemblage also produced a range of animal burials including a deposit of at least six fowl, the latter suggestive of possible ‘ritual’ treatment. Evidence of the utilisation of non-domestic animal species was also encountered, and includes debris from antler, bone and horn-working activities.

Despite the apparent lack of domestic structures, the Period II finds assemblage includes several examples of domestic items, including toilet instruments and items of personal adornment. The latter include five copper alloy brooches collectively dating between the pre-Conquest period and 2nd century AD, and four hairpins, two of copper alloy and two of bone (Cooper this report – *The small finds*). Other items included iron fittings and fitments, Roman bottle glass (deriving from early forms) and items associated with the processing of crops and textile production, specifically spindle-whorls, a possible weaving tool and quernstone fragments (*ibid.*). A collection of 45 Roman coins was also recovered from the site, including a possible hoard or purse group (Davies this report – *The coins*).

The rich Period II pottery assemblage reflects consumption/ deposition between the 2nd and 4th centuries AD, and possibly later, based from the outset on an established supply network (Peachey this report – *The prehistoric and Roman pottery*). The complexity and longevity of activity evidenced is no doubt a consequence of the site’s location within a productive rural landscape – defined by farmsteads, villas and small towns – with strong communications and trade links to the coast and the rest of East Anglia (*ibid.*). The pottery assemblage represents a significant addition to those recorded from adjacent sites, which together indicate local Romano-British activity from the mid 1st century AD (*ibid.*).

4.2.1 Roman Sub-Phase 1 (late 1st to early 2nd century AD)

Summary

Roman Sub-Phase 1 activity at the former Smoke House Inn (Figs. 11-18) encompassed the late 1st and the early 2nd centuries AD. Typologically, however, the pottery record only firmly attests Roman activity from the first quarter of the 2nd century. Roman Sub-Phase 1 features, mainly ditches and gullies, were most concentrated in the northern quadrant (Fig. 11) and formed at least one definable ditched enclosure (Enclosure 3). Features were also present, to a lesser extent, in the western and south-western quadrants. No structural evidence was encountered. The northern quadrant was bounded on two sides by previous excavations (The

Maltings (MNL 502; Bales 2004), the PIK Housing site (MNL 570) and land adjoining Smoke House Inn and Skelton's Drove (MNL 598)); site MNL 608 sat within the excavation limits. It is highly likely that ditches and gullies in this earliest Roman sub-phase represented elements of landscape divisions/ feature alignments identified by earlier work both within and surrounding the current site⁵.

None of the Roman Sub-Phase 1 pottery attests to Conquest-era or early Roman activity (mid to late 1st century AD; Peachey this report – *The prehistoric and Roman pottery*). Pottery production/ consumption at the site did not appear to peak until later (*ibid.*). Small finds of note from this sub-phase comprise a worked bone awl or weaving tool (SF133) from Ditch F4435 (L4436; Grid Square M9-M10), a fragment of gritstone quern (SF105) from Gully F3201 (L3202 (Seg.B)); Grid Square R16-R17) and a fragment of lava quern from Pit F3272 (L3273; Grid Square R18). Activity during this Roman Sub-Phase 1 appears to have been predominantly agricultural in nature.

Roman Sub-Phase 1 ditches and gullies

The Roman Sub-Phase 1 ditches and gullies were chiefly aligned c. north-west to south-east/ north-east to south-west (Fig. 11). The major exceptions to this rule (Table 9) were north-north-east to south-south-west aligned Ditch F1145 (Grid Square D8-D10), east to west aligned Gully F1385 (Grid Square J15-K15), north to south aligned Ditches F1575 (Grid Square L7) and F1673 (Grid Square N17-N19), and intercutting curvilinear Gullies F3199 (Grid Square Q16-Q17) and F3201 (Grid Square Q16-R17). Bar the latter pair, these six features were broadly dispersed. F3201 yielded the most diverse finds assemblage of the six, comprising a fragment of coarse gritstone quern (SF105) from Fill L3202 (Seg.B) with an estimated diameter of 400mm (Cooper this report – *The small finds*), 35 sherds (620g) of Roman pottery, animal bone (250g), CBM (249g), burnt stone (1750g) and Fe fragments (43g). Relatively isolated Ditch F1145 (Grid Square D8-D10) yielded the largest pottery assemblage of the six, comprising 53 1st to 2nd century sherds (1066g). Unusual alignments were also displayed by several lesser ditches and gullies, e.g. F1038 (Grid Square B7-C7) and F3719 (Grid Square V16).

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1145	Ditch	D8-D10	NNE-SSW	12.00 x 1.10 x 0.36	Linear	Moderate	Pointed
1385	Gully	J15-K15	E-W	9.57 x 0.80 x 0.17	Linear	U-shaped	Concave
1575	Ditch	L7	N-S	7.85 x 1.35+ x 0.21	Linear	Gentle	Concave
1673	Ditch	N17-N19	N-S	22.61 x 1.40 x 0.45	Linear	Gently Moderate	Concave
3199	Gully	Q16-Q17	Curvilinear	8.32 x 0.90 x 0.30	Linear	Moderately steep	Concave
3201	Gully	Q16-R17	Curvilinear	16.11 x 1.52 x 0.70	Linear	Moderate	Concave

Table 9: Misaligned Roman Sub-Phase 1 ditches and gullies

Possible Roman Sub-Phase 1 enclosures

A substantial sub-circular, ditched enclosure (Enclosure 3; Table 10; Figs. 13-14), was identified on the western edge of the northern quadrant. Ditches F1310 (Grid Square J13-K15) and F1347 (=F2051; Grid Square M15-M14 and M14-N14) were curvilinear in plan, though broadly conformed to the north-west to south-east/ north-east to south-west linear alignments characteristic of this sub-phase. The course of

⁵ Possible links between sites are discussed as and when appropriate

F1310 may have been continued to the north-east by truncated Ditch F1376 (Grid Square K14-L16; recut by Roman Sub-Phase 6 Ditch F1374) and Ditch F1571 (Grid Square K17-L16), although these displayed gentle to moderately sloped sides and flat bases at odds to the U-shaped profiles of F1310 and F1347 (=F2051). However, all four features contained broadly equivalent fills. Enclosure 3 was partly extrapolated and roughly sub-circular in plan, measuring c. 20.5m (north-west to south-east). The south-east to north-west section of Ditch F1347 (=2051) had been lost due to truncation by later features (principally Roman Sub-Phase 5 Ditch F1429 (=1814)). The south-western extent of Enclosure 3 was represented by intercutting Ditches F1318 and F1322 (Grid Square J14-L13; Figs. 13 and 15); the former cut the southern extent of Ditch F1310 (L1311). The only contemporary features within Enclosure 3 were Stakeholes F1289, F1291 and F1293, and Posthole F1295 (all in Grid Square K14); these were functionally ambiguous however (see below). Ditch F1347 (=2051) contained 66g of animal bone, one sherd (3g) of Roman pottery and 213g of CBM. Similar finds were recovered from Ditches F1376 and F1571.

Ditches F1318 and F1322, forming the western edge Enclosure 3 (Figs. 13 and 15), post-dated Enclosure Ditch F1310 but probably by very little. Gully F1280 (Grid Square J14- K14) ran parallel to F1318 immediately to the north of the latter (at its north-western extent), but was itself cut by F1310. Other features in this linear grouping comprised Ditches F1306 (Grid Square J13- L13) and F1308 (Grid Square J13- L13; Fig. 15). The four larger parallel ditches (F1306, F1308, F1318 and F1322) contained practically identical fills but differed in their profiles. F1306 and F1318 displayed moderately sloping profiles and were the earliest features, being respectively recut by F1308 and F1322; the later pair had generally steeper sides. The alignment of this grouping may have been continued to the south-east by Ditches F2494 and F2496, located on the boundary of the northern and south-western quadrants (Grid Square M12-M13; Fig. 11). Besides sparse Roman pottery, the fills of these features yielded little of interest. The largest animal bone assemblage (by weight; 288g) is from Ditch F1308 (L1309) and comprises elements of cattle, sheep/ goat, large terrestrial mammal and medium terrestrial mammal (Cussans 2012; Curl and Cussans this report – *The animal bone*). One cattle femur head displays signs of eburnation, indicative of overuse/ old age, and butchery was recorded on several cattle head (skull/ mandible) fragments (*ibid.*). Environmental sampling of Ditch Fill L1323 (F1322) yielded cultivars including wheat (sp.) and barley (sp.) as well as indeterminate large legumes (Fabaceae indet.), all in relatively low numbers, and a possible uncultivated food plant – black mustard (*Brassica cf. nigra*; Summers this report – *The charred plant macrofossils and charcoal*). Given the close set linear arrangement of these features and their relationship with Enclosure 3, it is possible that they formed a narrow livestock droveway/ race or double-ditched boundary. The former interpretation is tentative however as both ends of the alignment were heavily truncated and no postholes, potentially indicative of hurdles or gates, were present. However, plant and animal remains from these features clearly indicate the early Romano-British agricultural exploitation of the immediate landscape.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1310	Ditch	K13-K15	Curvilinear	7.63 x 0.65 x 0.27	Curvilinear	U-shaped	Concave
1318	Ditch	J14-L13	WNW-ESE	16.74 x 1.40 x 0.44	Linear	Moderate	Concave
1322	Ditch	J14-L13	WNW-ESE	18.17 x 1.90 x 0.60	Linear	Steep	Concave
1347=2051	Ditch	M15-M14 & M14-N14	Curvilinear	4.71 x 1.05 x 0.45	Linear	V-shaped	Concave
1376	Ditch	K14-L16	NNE-SSW	10.27 x 0.82 x 0.40	Linear	Moderate	Flat
1571	Ditch	K17-L16	Curvilinear	11.28 x 0.88+ x 0.38	Linear	Gentle	Flat

Table 10: Features forming Enclosure 3

Other ditch remnants on a similar alignment to the above 'droveway' or boundary were identified within the northern quadrant (Table 11). These comprised Gully F1468 (=1848=2067; Grid Square M18- Q16), Ditch F1671 (Grid Square N18-Q17), Ditch F2906 (Grid Square Q19-R19 and Q19-S18) and, to a lesser extent, Gully F1927 (Grid Square M16-N15). The latter was located approximately 29m north-east of F1322 and c. 7.6m north-east of F2051 (Fig. 13). Ditch F1671 and Gully F1468 were positioned 16.5 to 19m further on still and Ditch F2906 lay c. 20m to the north-east of this pair. Despite the distance separating these features, their fills were largely similar. All yielded Roman pottery, the greatest assemblage being 112 sherds (2625g) from Ditch F1671 (predominantly from basal Fill/ Dump L2027). F1671 also yielded the greatest weight of animal bone (817g), comprising elements of cattle, sheep/ goat, pig, large terrestrial mammal and medium terrestrial mammal (Cussans 2012), in addition to Fe fragments (27g), also from L2027. It is very likely that these features comprised elements of an extended enclosure system, only one part of which – Enclosure 3 – was clearly discernible; viewed north-east to south-west, these linear ?boundaries appeared to divide up the landscape into 20 to 25m 'plots'.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1468=1848 =2067	Gully	M18-Q16	NW-SE	17.89 x 1.13 x 0.30	Linear	U-shaped	Concave
1575	Ditch	L17	NE-SW	7.85 x 1.35+ x 0.21	Linear	Gentle	Concave
1994	Ditch	P16	NE-SW	11.16 x 0.54 x 0.35	Curvilinear	Steep	Concave
1671	Ditch	N18-Q17	NW-SE	23.86 x 1.02 x 0.51	Linear	Moderate	Concave
1927	Gully	M16-N15	NE-SW	11.25 x 0.65 x 0.20	Linear	U-shaped	Concave
2077	Ditch	N17-P18	NE-SW	11.14 x 0.50 x 0.10	Linear	U-shaped	Concave
2906	Ditch	Q19-R19 & Q19-S18	NW-SE	25.51 x 0.93 x 0.35	Linear	Moderate	Concave
3199	Gully	Q16-Q17	NE-SW	8.32 x 0.90 x 0.30	Linear	Steep	Concave
3201	Gully	R16-R17	NE-SW	16.11 x 1.52 x 0.70	Linear	Moderate	Concave
4594	Ditch	T14-T15	NW-SE	5.02 x 0.37 x 0.15	Linear	Gentle	Concave
4614	Ditch	R13-S14	NW-SE	10.27 x 0.71 x 0.48	Linear	Moderate	Concave

Table 11: Linear features aligned with Enclosure 3 (1 of 2)

Bar Ditches F1310 (Grid Square J13-K15) and F1347 (=2051; Grid Square M15 and M14-N14), few substantial north-east to south-west aligned linear features survived that may have been associated with the possible Roman Sub-Phase 1 enclosure system. One exception was Ditch F1994 (Grid Square P16); this feature was cut by F1468 (=1848=2067; Grid Square M18-Q16) and F1671 (Grid Square N18-Q17), and may have formed a 'return' to these features. F1994 was only recorded in section however and yielded no finds. Other exceptions included Ditches F1571 (Grid Square K17-L16), F1575 (Grid Square L17) and F2077 (Grid Square N17-P18), curvilinear Gullies F3199 (Grid Square Q16-Q17) and F3201 (Grid Square R16-R17), and the north-easterly 'return' of north-west to south-east aligned Ditch F2906 (Grid Square Q19-R19 and Q19-S18). Two apparently associated north-east to south-west aligned ditches (F4594 (Grid Square T14-T15) and F4614 (Grid Square R13-S14)) were present c. 27m south-east of the possible enclosure system, although were heavily truncated by Roman Sub-Phase 2 Ditches F4592 (Grid Square S14-U15) and F4598 (Grid Square R13-S14). Nonetheless, due to the

considerable temporal overlap between Roman Sub Phases 1 and 2, it is likely that these later features formed a straightforward development of the Roman Sub-Phase 1 enclosure system.

A less extensive group of similarly aligned features was present in the south-western quadrant (Table 12; Fig. 11). F4036 (Grid Square L8-M9) and F4338 (Grid Square L9-M10) comprised short, linear sections of broad ditches (up to 2m wide), aligned north-east to south-west. Gully F4427 (Grid Square L9) ran north-west to south-east and appeared to relate directly to F4338; their surviving termini were directly adjacent, albeit truncated by Period III Gully F4336. Narrow Gully F4334 (Grid Square L9-M9) ran adjacent to F4036 although was cut at its north-eastern end by F4338; Gully F4305 was similarly truncated by the north-eastern terminus of F4036. Ditch F4036 also cut narrow unphased Gully F3970 (Grid Square J7-L8), which followed the same north-east to south-west alignment. Similarly aligned Gully F4100 (Grid Square J8-K9) was located c. 10.6m west of F4036. Heavily truncated Gully F4307 (Grid Square M9) and Ditch F4435 (Grid Square M10) may also have formed part of this 'complex'. These features sat c. 36m+ south of F1306 and F1308 (and Enclosure 3) though they may have been functionally similar. With the exception of Gully F4307, all of these features yielded small amounts of Roman pottery and most contained animal bone, the greatest assemblage comprising 1993g from F4338 (Cussans 2012). One small find of particular note, a worked bone awl or weaving tool (SF133; see Cooper this report – *The small finds*), was recovered from Fill L4436 of Ditch F4435 (Seg.B). Such finds are common in the late Iron Age (*ibid.*), possibly indicating a pre-Conquest origin for this example. F4100 yielded small amounts of slag (ten fragments; 43g) and burnt flint.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
4036	Ditch	L8-M9	NE-SW	14.33 x 2.04 x 0.21	Linear	Gentle	Flattish
4100	Gully	J8-K9	NE-SW	9.42 x 1.00 x 0.32	Linear	Moderately steep	Concave
4305	Gully	M9	ENE-WSW	2.34 x 0.35 x 0.33	Linear	Moderately steep	Concave
4307	Gully	M9	NW-SE	0.87 x 0.45 x 0.13	Linear	Moderately steep	Flat
4334	Gully	L9-M9	NE-SW	7.53 x 0.65 x 0.17	Linear	Moderate	Concave
4338	Ditch	L9-M10	NE-SW	10.30 x 1.80 x 0.67	Linear	Moderately steep	Flattish
4427	Gully	L9	NW-SE	4.09 x 0.60+ x 0.30	Linear	Moderately steep	Flattish
4435	Ditch	M9-M10	NE-SW	7.24 x 1.60+ x 0.55	Linear	U-shaped	Concave

Table 12: Linear features aligned with Enclosure 3 (2 of 2)

Possible Roman Sub-Phase 1 'pens'

A rectilinear arrangement of seven north-west to south-east/ north-east to south-west aligned ditches and gullies was identified in the north-western corner of the northern quadrant (Grid Square J15-J17 and K15-K17; Table 13; Fig. 16). The alignments of these features matched those of several ditches recorded at the Maltings site (MNL 502), a short distance to the north, including Period III.2 (mid 1st to mid 3rd century) Ditches 0124 and 0129 (Bales 2004, 11). The latter belonged to a group averaging 0.50m in depth, comparable to Ditches F1349 and, possibly, F1480 of the current group (Fig. 16) and yielded Roman pottery dating up to the 3rd century AD (*ibid.*). However, no continuations of individual features could be identified between the two sites.

The features of this group were similar in profile, mostly having gentle to moderately sloping sides and concave bases (Fig. 16), and all, bar Ditch F1480 (Grid Square J16-K17), contained more-or-less identical fills. Finds from these features are limited

however, comprising only a few sherds of Roman pottery (not closely datable) and trace animal bone; Ditch F1480 also yielded 5g of plaster. As such, any interpretation of these features, their relationship and function(s), rests largely on their morphology. Gullies F1325 (Grid Square J16-K15), F1391 (Grid Square J16-K15), F1393 (Grid Square J15), F1476 (Grid Square J16-K16) and F1509 (Grid Square K16) ran north-west to south-east and appeared (largely) regularly spaced; F1476 and F1509 were separated by only 0.5m however. The north-western extent of this group (disregarding Ditch F1480) was marked by north-east to south-west aligned Ditch F1349 (Grid Square J16), whilst the south-eastern extent was lost to later truncation. A possible access point was visible to the south-west between the termini of Gullies F1391 and F1393. Based on the limited space between these features (a maximum of 3.7m) it is possible that they formed 'pens' or similar, possibly associated with the corralling or sorting of livestock. The narrow space between Gullies F1509 and F1476 may have functioned in the channelling of animals from or to nearby Enclosure 3, located 8.5m to the south-east, although this interpretation remains tentative owing to the limited survival of both features.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1325	Gully	J16-K15	NW-SE	5.30 x 0.52 x 0.09	Linear	Gentle	Concave
1349	Ditch	J16	NE-SW	5.69 x 0.85 x 0.25	Linear	Moderate	Concave
1391	Gully	J15-K15	NW-SE	4.50 x 0.30 x 0.12	Curvilinear	Gentle	Concave
1393	Gully	J15	NW-SE	2.50 x 0.23 x 0.07	Linear	U-shaped	Concave
1476	Gully	J16-K16	NW-SE	5.68 x 0.38 x 0.16	Linear	Moderate	Concave
1509	Gully	K16	NW-SE	1.78 x 0.40 x 2.30	Linear	Gently Moderate	Concave
1480	Ditch	J16-K17	NE-SW	8.55 x 1.18 x 0.51	Linear	U-shaped	Concave

Table 13: Features comprising the possible Roman Sub-Phase 1 'pens'

Similar early Romano-British livestock pens were identified at Cambourne New Settlement, represented by short ditch sections within a larger enclosure (enclosure f; phase 2c; Wright *et al.* 2009, 22).

Less coherent Roman Sub-Phase 1 ditches and gullies

Numerous shorter sections of north-west to south-east/ north-east to south-west aligned Roman Sub-Phase 1 ditches and gullies were also identified, particularly in the northern quadrant (Fig. 11). These were possibly associated with the more substantial boundary/ enclosure ditches and gullies in this quadrant, though few direct relationships between features were apparent. Two examples were Gullies F2713 (Grid Square P19-Q19) and F2721 (Grid Square Q19), found close to the north-western corner of Ditch F2906 (Grid Square Q19-R19 and Q19-S18). The termini of both gullies had survived (c. 1.70m apart) and possibly represented some form of corner entrance or access point between separate 'areas'. Roman Sub-Phase 1 Pit F2723 (Grid Square Q19) was located nearby. A longer section of north-west to south-east aligned gully (F3793; Grid Square W13-X12) was also encountered but was too far from F2713 and F2721 to be directly relatable. Nonetheless, its orientation was exactly mirrored by later (possibly recut) Roman Sub-Phase 2 Gullies F3795 (Grid Square W13-X13) and F3797 (W13-X12), and other nearby linear features. It seems likely therefore that Gully F3793 formed part of the early Roman enclosure system outlined above, and that this system was subsequently recut/ remodelled. The large number and density of Roman Sub-Phase 2-4 ditches identified in the northern quadrant of the site may support this interpretation.

Two groups of possibly associated linear features were encountered in the central part of the western quadrant (Fig. 11). The first group, comprising Gullies F1179 (Grid Square F9-F10) and F1213 (Grid Square F9-F10), and Ditches F1197 (Grid Square E8-F9), and F1215 (Grid Square F10), basically conformed to the north-west to south-east/ north-east to south-west alignments predominant across Roman Sub-Phase 1. North-north-east to south-south-west aligned Ditch F1145 (Grid Square D8-D10) was located c. 10-14m west of this group. These features varied in their profiles but, with the exception of F1145, contained similar fills. Finds from this group include sparse pottery and animal bone; Ditch F1215 was devoid of finds. Ditch F1145, however, yielded a comparatively large assemblage of Roman pottery (53 sherds; 900g) and animal bone (268g), once again distinguishing it from neighbouring linear features.

The second group of linear features encountered in the western quadrant comprised Gully F2183 (Grid Square F8) and Ditches F2185 (Grid Square F7-F8), F2189 (Grid Square F8) and F2214 (Grid Square F8-G8). Unlike the above group, a short distance to the north-west, these features displayed identical profiles and similar fills. Although severely truncated by later features, this group also appeared to be aligned approximately north-west to south-east/ north-east to southwest. Only two of these features (F2189 and F2214) yielded finds, once again comprising small quantities of animal bone and Roman pottery (not closely datable).

Ditch F2442 (GS G9; Fig. 11) was located a short distance east of the above linear feature groups (in the western quadrant) and was aligned c. north-east to south-west. This ditch was again severely truncated by later features and its relationship to nearby Roman Sub-Phase 1 features remains uncertain. However, it truncated broadly contemporary Ditch F2444 (Grid Square G9) and yielded two sherds (14g) of Roman pottery and a single piece of residual struck flint. Ditch F2444 was devoid of finds and was only tentatively assigned to this sub-phase based on its stratigraphic relationship with F2442.

Ditch F1038 (Grid Square B7-C7), the south-westernmost Roman Sub-Phase 1 linear feature, was somewhat removed from contemporary ditches/ gullies in the western quadrant. The surviving section of this ditch was aligned east to west and its two fills were dissimilar to those of other nearby Roman Sub-Phase 1 features. The finds assemblage from this feature is also distinctive, comprising a comparatively large weight of animal bone (748g) as well as six sherds (119g) of Roman pottery. The faunal assemblage comprises elements of large and medium terrestrial mammal (Cussans 2012).

Roman Sub-Phase 1 feature clusters and pairs

Like the Period I pits and postholes, those of Roman Sub-Phase 1 displayed some tendency toward clustering. A cluster of five intercutting pits (Table 14) was identified in the southern corner of the western quadrant (Fig. 12). The earliest of these (F1057; Grid Square B5) was cut by larger Pit F1059. Two successive recuts of this feature were apparent, F1062 and F1064, the earlier of which yielded one sherd (54g) of Roman pottery (not closely datable) and 650g of animal bone. The latest feature in this group, Pit F1044, partially truncated the south-eastern edge of F1059 and yielded five sherds (123g) of late 1st to mid-2nd century pottery, 5g of

struck flint and 1870g of animal bone. The fills of these pits mostly comprised compact clayey sands, with the exception of L1047 and L1066 (the upper fills of F1044 and F1064 respectively), which comprised humic material. Bar F1057, the shape and profile of these five features were also broadly similar.

Feature	GS	Size (m)	Plan	Profile	Base
1044	B5	2.20 x 1.60 x 0.60	Sub-circular	Steep	Concave
1057	B5	0.50 x 0.98+ x 0.25	Sub-circular	Steep	Concave
1059	B5	2.25 x ? x 0.45	Sub-circular	Gentle	Concave
1062	B5	1.71 x ? x 0.37	Sub-circular	Gentle	Concave
1064	B5	1.19 x ? x ?	Sub-circular	Gentle	Concave

Table 14: Roman Sub-Phase 1 pit cluster (1 of 2)

The animal bone assemblage from Pit F1044 (L1045) is the second largest from any Roman Sub-Phase 1 feature. It comprises elements of cattle, horse, pig, sheep/goat, large terrestrial mammal and medium terrestrial mammal, and is characteristic of a midden-like material; several elements display signs of butchery (Cussans 2012). Cattle bones are also present in the smaller assemblage from L1063 (F1064) in addition to two red deer limb bones (*ibid.*). Environmental samples from the fills of F1044 and F1062 yielded nothing of note.

A second apparent 'cluster' of pits was recorded in the northern quadrant (Grid Square N18; Table 15). These features were intercutting and two (F1807 and F1809) were only recorded in section; the latest feature of the three (F1800) was severely truncated by Roman Sub-Phase 1 Ditch F1673 (Grid Square N17-N19) which also cut Roman Sub-Phase 1 Ditch F1468 (=1848=2067; Grid Square M18-N18) and Gully F1671 (Grid Square N18-Q17) to the south. It is possible therefore that these pits were contemporary with the use of an enclosure system partly formed by the latter two features. Pit F1800 yielded the only finds, comprising 442g of animal bone and the group was phased based on its stratigraphic relationship with Ditch F1673.

Feature	GS	Size (m)	Plan	Profile	Base
1800	N18	3.49 x 2.73 x 0.91	Sub-oval	U-shaped	Concave
1807	N18	1.20 x 1.04 x 0.27	Unknown	U-shaped	Concave
1809	N18	1.15+ x 0.45 x 0.33	Sub-rectangular	U-shaped	Flat

Table 15: Roman Sub-Phase 1 pit cluster (2 of 2)

An intercutting pair of Roman Sub-Phase 1 pits (F1841 and F1844; Table 16) was also present in the northern site quadrant (Grid Square Q16-Q17). The stratigraphically later of the two, F1841, was irregular in plan and profile and was the largest Roman Sub-Phase 1 pit encountered. It truncated smaller Pit F1844 and was itself cut by Roman Sub-Phase 1 Ditch F1671 (Grid Square N18-Q17). Pit F1841 was also the only one of the two to contain finds, comprising five sherds (67g) of Roman pottery (not closely datable) and 678g of animal bone. The faunal assemblage comprises elements of cattle, goat (*Capra hircus*), sheep/goat, pig, large terrestrial mammal and medium terrestrial mammal, and includes evidence of canid gnawing (Cussans 2012). The identified goat bone is a horn-core (*ibid.*). The function of F1841 remains uncertain although it may have originally been a quarry pit; it is unlikely to have primarily constituted a refuse pit, being so large and containing such a small assemblage of finds. The material from this pit likely represents casual discard of items into an available 'open' feature; similar practice was noted in period III.2 pit 0471 at the nearby Maltings site (Bales 2004, 11).

Feature	GS	Size (m)	Plan	Profile	Base
1841	Q16-Q17	3.70 x 3.12 x 1.00	Sub-circular	Irregular	Concave
1844	Q16-Q17	0.66 x 0.58 x 0.37	Oval	Irregular	Flat

Table 16: Roman Sub-Phase 1 pit pair

Another possible feature cluster, comprising Stakeholes F1291, F1293 and F1289, and Posthole F1295, was located within the confines of Enclosure 3 (Grid Square K14; Table 17; Figs. 12-13). Originally, these features were recorded as part of an extensive cluster of similar features numbering more than 80 and conforming to loose linear arrangements, though the majority of these contained no datable material and were re-recorded as solution hollows. Those features assigned to Roman Sub-Phase 1 were either circular or oval in plan and ranged in size from 0.13 x 0.13m to 1.20 x 0.90m. All displayed steep or near-vertical sides and three had flat(ish) bases; these features were between 0.05m and 0.70m deep. Despite their obvious morphological dissimilarities, the fills of these features were alike. Stakeholes F1298, F1291 and F1293 each yielded individual sherds of Roman pottery (not closely datable). No other finds were present and environmental sampling yielded only modern contaminants.

Feature	GS	Size (m)	Plan	Profile	Base
1289	K14	1.20 x 0.90 x 0.70	Oval	Steep	Pointed
1291	K14	0.13 x 0.13 x 0.06	Circular	Steep	Flat
1293	K14	1.13 x 1.13 x 0.05	Circular	Steep	Flat
1295	K14	0.32 x 0.26 x 0.25	Oval	Near vertical	Flattish

Table 17: Possible Roman Sub-Phase 1 posthole/ stakehole cluster

Roman Sub-Phase 1 Postholes F3193, F3195 and F3197 were spaced less than 1m apart in the northern quadrant of the site (Grid Square Q16; Table 18; Fig. 12). These features formed a skewed triangular arrangement and were all cut by Roman Sub-Phase 1 Gully F3199 (Grid Square Q16-Q17). These features also contained identical, 'sterile' fills and were morphologically comparable. It is possible that the postholes represented some form of three-post structure. None yielded finds of any sort.

Feature	GS	Size (m)	Plan	Profile	Base
3193	Q16	0.25 x 0.25 x 0.35	Sub-circular	Very steep	Concave
3195	Q16	0.23 x 0.24 x 0.30	Sub-circular	Very steep	Concave
3197	Q16	0.20 x 0.15+ x 0.25	Sub-circular	Very steep	Concave

Table 18: Triangular arrangement of Roman Sub-Phase 1 postholes

Dispersed Roman Sub-Phase 1 pits and postholes

The remaining Roman Sub-Phase 1 pits and postholes were broadly distributed across the site. Seven of these (Table 19) were close to or cut by Roman Sub-Phase 1 ditches/ gullies. Only five contained finds, collectively comprising small quantities of pottery, animal bone and shell. Environmental remains from Pit F1776 (Grid Square M18-N18), c. 3m north-east of Gully F1468 (=1848=2067) in the northern quadrant, are of particular note however. Fill L1777 of this feature yielded a cereal assemblage dominated by wheat and, to a lesser extent, hulled barley; oat was also represented along with a range of arable weed species (Summers this report – *The charred plant macrofossils and charcoal*). The identified taxa are indicative of an unprocessed crop, possibly burnt accidentally and subsequently deposited in a single event (*ibid.*). This context also contained mineralised remains characteristic of very organic material, which may have been associated with the

presence of faecal matter (*ibid.*). As such, F1776 might have been a cess pit or similar, probably also used for the discard of other items.

Feature	GS	Size (m)	Plan	Profile	Base
1217	F9	0.50 x 0.45 x 0.07	Oval	Moderate	Concave
1438	K15	0.60 x 0.60 x 0.35	Circular	Moderately steep	Concave
1594	K15	0.68 x 0.52 x 0.28	Oval	Moderately steep	Concave
1776	M18-N18	0.96 x 0.90 x 0.36	Oval	Steep	Flat
2062	P17	2.96 x 1.45 x 0.33	Oval	Gentle	Flat
2723	Q19	0.80 x 0.78 x 0.55	Sub-circular	Steep	Concave
3205	Q15	0.60+ x 1.10 x 0.53	Sub-oval	Near vertical	Concave

Table 19: Dispersed Roman Sub-Phase 1 pits ?associated with linear features

Of the seven remaining Pits assigned to this sub-phase (Table 20), only F3727 (Grid Square V14) and F3272 (Grid Square R18) yielded significant finds. The former contained 11 sherds (93g) of Roman pottery (not closely datable), 1122g of animal bone and 116g of shell. The faunal assemblage comprises elements of cattle, horse, sheep/ goat, large terrestrial mammal and medium terrestrial mammal; sheep/ goat (likely sheep) horncores within the assemblage may represent juvenile individuals (Cussans 2012). Fill L3273 of Pit F3272 yielded one find of particular interest: a single fragment of quernstone in Mayen lava, similar to examples from Roman Sub-Phases 5 and 6 with an extrapolated diameter of 380mm (Cooper this report – *The Small Finds*). This feature was cut by Roman Sub-Phase 3 Ditch F2913. None of the dispersed Roman Sub-Phase 1 postholes (F1522 (Grid Square K15), F1839 (Grid Square N17) and F3348 (Grid Square R16)) yielded finds of any description and their function remains uncertain.

Feature	GS	Size (m)	Plan	Profile	Base
2709	P20	0.95 x 0.64 x 0.37	Sub-rectangular	Moderate	Concave
3272	R18	0.50 x 0.86 x 0.27	Sub-circular	Near vertical	Concave
3667	T16	0.55 x 0.54 x 0.80	Sub-circular	Steep	Concave
3727	V14	3.10+ x 0.36+ x 0.60	Sub-oval	Steep to very steep	Irregular
3875	W14	? x ? x 0.62	Sub-circular	Irregular	Concave
4236	K9	0.98 x 0.65 x 0.43	Sub-oval	Moderately steep	Concave
4433	J9-J10	0.72+ x 0.76+ x 0.11	Oval	Moderate	Flat

Table 20: Other dispersed Roman Sub-Phase 1 pits

Roman Sub-Phase 1 spreads

Roman Sub-Phase 1 included four spreads within the northern area of the western quadrant (L2229, L2230, L2231 and L2234; Grid Square G12-G13), all of which were heavily truncated by later activity. The only finds from any of these layers comprise five sherds (318g) of Roman pottery from L2230. The interpretation of these spreads is hampered by their comparative isolation from other contemporary features, although they appeared to have formed above shallow Roman Sub-Phase 1 Pit F2232 (Grid Square G12-G13); Spread L2231 is thought to have comprised redeposited natural sand.

Focuses of Roman Sub-Phase 1 activity

The weights of recovered CBM and pottery were plotted (Figs. 17-18) in order to identify any focussed areas of activity within Roman Sub-Phase 1. It is widely acknowledged that 'ceramic weight' can be employed to examine site formation processes and the relative distribution of material across sites (e.g. Voss and Allen 2010, 1). In this instance it was hoped to identify any particular areas of increased

discard. It was also anticipated that any very large assemblages of CBM might potentially indicate the original presence of otherwise archaeologically 'invisible' structures. The greatest weights of CBM (between 251g and 300g) were recorded in the northern quadrant of the site with lesser quantities present immediately to the south (Fig. 17). One such assemblage was recovered from features forming Enclosure 3 (Grid Square M14). In the southern quadrants, CBM weights diminished significantly, reflecting the scarcity of early Roman features in this area. Between 151g and 200g of CBM was also recovered from the western quadrant. No structural remains were identified within this sub-phase and the weights of recovered CBM were too small to suggest the original presence of masonry buildings. It is possible that the assemblage represents the inclusion of surface material that arrived on site via secondary processes, e.g. manuring.

Plotted weights of Roman Sub-Phase 1 pottery appear more evenly distributed across the site, bar in the south-east quadrant which was totally devoid of early Roman activity. The greatest assemblages (801g+) were spread across the northern, south-western and western quadrants, though were not directly associated with any definite 'boundaries'. The linear features forming Enclosure 3 yielded only modest weights of pottery. The greatest area of pottery discard was the central and western part of the northern quadrant (Fig. 18), where seven grid squares yielded between 201g and 801g+; the surrounding grid squares yielded lesser weights. The Roman Sub-Phase 1 pottery assemblage was dominated by long-lived coarse ware fabric groups of the Wattisfield/ Waveney Valley and Horningsea industries (Peachey this report – *The prehistoric and Roman Pottery*). The greatest weight of pottery recovered from any one Roman Sub-Phase 1 feature comprises 2625g (101 sherds) from Ditch F1671 (Grid Square N18-Q17), almost entirely derived from a single large jar of undefined type (*ibid.*).

The nature of early Romano-British activity

Roman Sub-Phase 1 comprised 'broken' elements of a ditched enclosure system mostly confined to the northern site quadrant. A single sub-circular enclosure (Enclosure 3) was encountered towards the western edge of this quadrant. Enclosure 3 was bounded by a section of possible narrow trackway or double-ditched boundary to the south-west, with a smaller area of possible livestock pens recorded to the north-west. Although more fragmented, the remaining Roman Sub-Phase 1 ditches and gullies are likely, at least in part, to have formed elements of additional enclosures. With the exception of the south-eastern quadrant, early Roman linear features were present in all areas of the site.

Early Romano-British activity at the former Smoke House Inn appears to have been predominantly agricultural in nature. Of the 14407g (565 pieces) of bone from this sub-phase the majority was butchered cattle bone, including food waste and evidence of skinning (Curl and Cussans this report – *The animal bone*). Sheep/ goat – a primitive variety reminiscent of the modern Soay – was identified from a few contexts, while horse and pig remains were present in much lower numbers (*ibid.*). Two breeds of dog were identified, including the smallest individual from the site, and canid gnawing was identified throughout the Roman Sub-Phase 1 assemblage (*ibid.*). Remains of wild species were sparse but included a single example of red deer and a few bird bones (*ibid.*).

Carbonised plant remains from Roman Sub-Phase 1 features include cereals and non-cereal food species, such as black mustard and other seeds of *brassica/Sinapsis*, used either for oil, spice or as a vegetable (Summers this report – *The charred plant macrofossils and charcoal*). Fill L1777 of Pit F1776 yielded the highest density of plant remains including wheat and barley, possibly representing a fully processed product (*ibid.*). However, the low overall density of cereal remains from this sub-phase points towards mixed accumulations of debris from waste disposal rather than concentrated deposits of carbonised material (*ibid.*). Cereal cultivation as part of a mixed agricultural economy is certainly attested however, with identified arable weed species indicating an autumn crop sown on well manured ground (*ibid.*).

Small finds of note from this sub-phase comprise quern stone fragments from Gully F3201 and Pit F3272 (Cooper this report – *The small finds*), indicative of small-scale cereal processing. A bone awl or possible weaving tool was also recovered from Ditch F4435, a constituent feature of Enclosure 3 (*ibid.*).

4.2.2 Roman Sub-Phase 2 (early to mid/ late 2nd century AD)

Summary

Roman Sub-Phase 2 at the former Smoke House Inn witnessed a large-scale intensification of activity, chiefly characterised by three successive systems of ditched enclosures (numbering 11 in total). The linear features forming these were, once again, chiefly confined to the northern quadrant, although an increased level of activity was also recorded in the south-eastern and south-western quadrants (Fig. 19). The Roman Sub-Phase 2 linear features appeared to have been cut, recut and/ or superseded continually within a relatively small area and over a short period of time. Once again, these ditches and gullies probably represented part of the agricultural Romano-British landscape encountered elsewhere in the immediate landscape (e.g. Bales 2004). Fourteen layers/ spreads and a single grave were also assigned to this second Roman sub-phase, further attesting to an intensification of local activity, although no obvious structural remains were present.

The Roman Sub-Phase 2 enclosures

The complex arrangement of Roman Sub-Phase 2 ditches and gullies in the northern quadrant of the site comprised three stratigraphically distinct enclosure systems. The ditches and gullies comprising these systems were largely aligned north-west to south-east/ north-east to south-west, although exceptions to this rule were present, e.g. curvilinear Ditch F2932 (=3139). Ditches and gullies towards the south-western edge of this quadrant appeared to obey a somewhat radial layout, tending towards a north-north-east to south-south-west/ west-north-west to east-south-east alignment. Several possible trackways were also identified as well as a number of smaller enclosed spaces. Those linear features within the southern part of the excavation appeared to slightly postdate Roman Sub-Phase 2 activity in the north, though displayed strong affinities to the stratigraphically latest of the northern enclosure systems, suggesting a southerly expansion from the 'core' of activity during the mid to late 2nd century AD. Within the temporal confines of Roman Sub-Phase 2, relatively little recutting of linear features was evident in the southern part of the site. However, the majority of ditches and gullies did not contain multiple fills, possibly

indicating that the boundaries they formed were ephemeral or short-lived. The sandy/ silty nature of the natural geology at the site is likely to have resulted in a constant need for maintenance and/ or recutting of boundary features, as evidenced by the succession of ditched enclosure systems identified in the northern quadrant of the site.

Roman Sub-Phase 2 Enclosure System 1

The principal boundary features forming Roman Sub-Phase 2 Enclosure System 1 are summarised in Table 21. The earliest enclosure within this sequence (Enclosure 4) was formed by Ditch F1266 (=1387; Grid Square J13-K16) and Ditch F1493 (=1909=2083; Grid Square K17-P15) (Figs. 20-23). The surviving elements of this rectilinear enclosure surrounded earlier Enclosure 3 in this part of the site, and encompassed an area of at least 1295m² (if sides of roughly equal length are assumed). The two surviving corners of the enclosure were rounded and the slight southward angling of Ditch F1266 (=1387) at its southern-western extent may well have formed the beginnings of a third corner (supporting the above estimate of internal area). Finds from Enclosure 4 comprise animal bone (totalling 693g) and 57 sherds (839g) of Roman pottery, including 2nd to mid/ late 3rd century examples from Fill L1910 (F1493=1909=2083). This feature also yielded the only other finds from this group, comprising 40g of burnt flint. A roughly north to south aligned ditch (F1331=1659; Grid Square L13-M15), an apparent recut of earlier Ditch F1282, was seen to sub-divide the internal area Enclosure 4 into two equal parts. Further to the north-east, Ditch F1907 (Grid Square M16-M17) loosely continued the alignment of F1331 (=1659) although the fill of this feature was cut by Ditch F1493 (=1909=2083). A further ditch (F1770; Grid Square L16-M17) ran approximately parallel to F1907, conceivably forming a c. 5m-wide trackway with the latter, extending north-eastwards and immediately predating Enclosure 4. Gully F1879, c. 21m to the north-east of F1907 (Grid Square P18-Q19) (Figs. 24-5), was aligned with this ditch and may well have formed a further surviving element of ditched 'trackway'. The three features forming this possible trackway yielded 206g of animal bone and 20g of ?pumice.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1266=1387	Ditch	J13-K16	NNW-SSE	9.71 x 1.58 x 0.51	Linear	Moderate - steep	Concave
1282	Ditch	L13-L14	N-S	5.44 x 1.25 x 0.55	Linear	Gentle	Concave
1331=1659	Ditch	L13-M15	NNW-SSE	7.30 x 1.05 x 0.50	Linear	Steep	Concave
1366	Gully	K16-L16	Curvilinear	11.19 x 0.80 x 0.32	Curvilinear	U-Shaped	Rounded
1493=1909=2083	Ditch	K17-P15	NW-SE	37.92 x 1.34+ x 0.35	Linear	U-Shaped	Concave
1770	Ditch	L16-M17	NE-SW	10.92 x 0.98 x 0.40	Linear	Gentle	Concave
1879	Gully	P18-Q19	NE-SW	16.50 x 0.34 x 0.19	Linear	Gentle	Concave
1907	Ditch	M16-M17	NE-SW	10.70 x 0.94 x 0.39	Linear	Gentle	Concave
2932=3139	Ditch	Q17-R18	Curvilinear	8.19 x 1.58 x 0.46	Linear	Moderate	Rounded

Table 21: Principal features forming Roman Sub-Phase 2 enclosure system 1

Enclosure 4 encircled F1297 (=1341; Grid Square K14-L13), an irregular gully aligned approximately north-west to south-east and partially truncating the southern terminus of Ditch F1282 (Grid Square L13-L14). This gully shared an alignment with Gully F1286 (Grid Square J14-K14) and part of curvilinear Gully F1366 (K16 - L15), narrow linear features truncated by the cutting of enclosure Ditch F1266 (=1387; Grid Square J13-K16); only two sherds (25g) of Roman pottery were recovered from these features. Similarly aligned Ditch F1864 (Grid Square M16-M17) was located c. 19m to the north-east of Gully F1366, and survived to a length of c. 4.6m. F1864 was truncated at its north-western end by Ditch F1770 (Grid Square L16-M17). It is

possible, albeit tentatively, that these four features represented the remnants of an earlier system of smaller Roman Sub-Phase 2 enclosures, post-dating Roman Sub-Phase 1 Enclosure 3 and pre-dating Enclosure 4. A further possibility is that curvilinear Gully F1366 (if 'open') was incorporated into the larger squared enclosure, and together with the north-western section of Ditch F1493 (=1909=2083; Grid Square K17-P15) formed the rounded end of an integral sub-rectangular area measuring some 539m² (internally).

The north-western edge of Enclosure 4 also truncated Gully F1378 (Grid Square J15-K15) (Figs. 20 and 22). This in turn cut the southern terminus of Gully F1363 (Grid Square K15-K16), while F1366, a short distance to the east, truncated Pit F1506 (Grid Square K16). The only finds of any sort from these features comprise animal bone (610g) and CBM (186g) from Gully F1378 (L1379). It is possible that F1378 and F1363 (and possibly F1286), given their location and early stratigraphic position, related to the Roman Sub-Phase 1 ?pens in Grid Squares J15-J16 and K15-K16 (above), albeit secondary to the original arrangement. Attempts to reconcile the earlier and later features forming these 'pens' within a single Roman sub-phase were unsuccessful however. To the east, within the confines of Enclosure 4, Gully F1772 (Grid Square L15-L16) was recorded (in section only; Fig. 23) below Roman Sub-Phase 3 Ditch F1372 (Grid Square K15-L15). This feature was oriented west-north-west to east-south-east, adjacent to the south-western end of F1366, and may (tentatively) have been associated with Roman Sub-Phase 2 Enclosure System 1; F1772 was devoid of finds.

The far western corner of Enclosure 4 was heavily truncated by later Roman features, though a short (5.5m) section of apparently contemporary gully (F1497; Grid Square K17; Figs. 20 and 23) was visible extending north-westwards. Although no relationship survived between this feature and Enclosure Ditch F1493 (=1909=2083; Grid Square K17-P15), 1m to the east, it putatively formed a continuation of the same enclosure system. Gully F1497 truncated Ditch F1602 (Grid Square K17-L18) which in turn cut Ditch F1483 (=1604; Grid Square J16-L17). These interleaved features also mirrored the alignments of other early Roman Sub-Phase 2 features in this part of the site, i.e. F1770 and F1907, and most probably related to these in some way.

Approximately 21m north-east of Enclosure 4 Ditch F1493 (=1909=2083) and 2m south-east of Gully F1879, an intercutting group of curvilinear ditches and gullies (F2932=3139, F2936 and F2938=3136; Grid Square P18 and Q17-Q19) was identified. It is possible, at least in the case of F2932 (=3139), that these features formed successive recuts of a sub-rectangular enclosure (Enclosure 5) oriented north-west to south-east, only the north-western limits of which survived (Figs. 24-25). Heavily truncated Gully F3180 (Grid Square Q17-Q18) was physically encircled by Ditch F2932 (=3139) (Fig. 24), though yielded no finds and was functionally ambiguous.

The final 'pair' of linear features assigned to Roman Sub-Phase 2 Enclosure System 1, Gullies F2594 and F2608, was located in Grid Squares P21-Q21 (Figs. 24-25). Although aligned with stratigraphically later features within this sub-phase, e.g. F2753 (Grid Square P21-Q20) and F3212 (Grid Square Q20-R19), little of these gullies survived to aid their interpretation. However, their closely-spaced parallel

alignments might have formed the south-eastern end of a ditched track or droveway running into the north-western baulk. The only finds from these gullies comprise 58g of animal bone and 8 sherds (69g) of Roman pottery (not closely datable) from the secondary Fill (L2610) of F2608.

Roman Sub-Phase 2 Enclosure System 2

The principal boundary features assigned to Roman Sub-Phase 2 Enclosure System 2 are summarised in Table 22. Although more poorly defined than its predecessor, this second system of early to mid/ late 2nd century AD enclosures included the surviving southern corner of a (possible) rectilinear enclosure (Enclosure 6) traversing the western part of the northern quadrant (Fig. 26). Enclosure 6 comprised Ditches F1334 (Grid Square L13-L14), F1395 (Grid Square J15-K15) and F1441 (=1449; Grid Square K15), the south-easternmost of which (F1334) was a recut of earlier Roman Sub-Phase 2 Ditch F1331 (=1659; Grid Square L15 - M15). The orientation of Enclosure 6 broadly matched that of forerunning Enclosure 4, although otherwise seemed to represent a considerable reordering of the landscape. The pottery assemblage from Enclosure 6 is comparatively rich, comprising 26 mid-1st to mid-2nd century sherds (505g) from F1395, one mid/ late 1st to early 2nd century sherd (68g) from F1441 (=1449) and 43 late 1st to early/ mid-2nd century sherds (1223g) from F1334. It seems therefore that an increase in activity in Roman Sub-Phase 2 was emulated by a similar increase in ceramic consumption/ discard at the site (see Peachey this report – *The prehistoric and Roman pottery*). Other finds from these features include CBM (165g) and animal bone (410g).

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1334	Ditch	L13-L14	N-S	7.61 x 1.05 x 0.40	Linear	Gentle	Concave
1395	Ditch	J15-K15	NNW-SSE	5.75 x 0.80 x 0.30	Linear	Moderate	Concave
1441=1449	Ditch	K15-L14	NNW-SSE	19.00 x 1.00 x 0.36	Linear	U-Shaped	Rounded
1550	Gully	M18-N19	NE-SW	6.82 x 0.56 x 0.22	Linear	Gentle	Concave
1866	Ditch	M16-M17	NE-SW	10.96 x 0.65 x 0.35	Linear	Gentle	Concave
2047	Gully	N16-P17	NE-SW	13.50 x 0.57 x 0.40	Linear	Moderate	Concave
2592	Gully	Q20-Q22	NNW-SSE	15.75 x 0.85 x 0.32	Linear	Steep	Flattish

Table 22: Principal features forming Roman Sub-Phase 2 enclosure system 2

Likely contemporary enclosure remnants included Ditch F1866 (Grid Square M16-M17) and Gullies F1550 (Grid Square M18-N19), F2047 (Grid Square N16-P17) and F2592 (Grid Square Q20-Q22) (Fig. 27). These four features were broadly aligned north-east to south-west and were dispersed across the northern quadrant of the site. At least two of these features may have represented a development of the Roman Sub-Phase 2 Enclosure System 1 'trackway' defined by F1770 (Grid Square K13-L16), F1879 (Grid Square P18-Q19) and F1907 (Grid Square M16-M17) (above). Gully F1550 was aligned with earlier Ditch 1302 (=1552=1770; Grid Square K13-L16), although was situated slightly further to the north-west, while the extrapolated south-westward course of Gully F2592 and earlier Gully F1879 mirrored the relationship between 1302 (=1552=1770) and F1907; the latter pair ran either side of Ditch F1866 (Grid Square M16-M17). It is possible therefore that a common route through this part of the landscape remained (more-or-less) unaltered between the abandonment/ remodelling of Roman Sub-Phase 2 Enclosure System 1 and the development of Enclosure System 2. It is equally likely however that Ditch F1866 and Gullies F1550, F2047 and F2592 comprised discontinuous elements of a rectilinear enclosure also encompassing Ditch F1882 (Grid Square P18-Q18) and Gully F1886 (Grid Square P18-R17; see below).

Ditch F1882 (Grid Square P18-Q18) and Gully F1886 (Grid Square P18-R17) ran perpendicular to Ditch F1866 (Grid Square M16-M17) and Gullies F1550 (Grid Square M18-N19), F2047 (Grid Square N16-P17) and F2592 (Grid Square Q20-Q22) in the northern quadrant. Ditch F1882 either represented a recut of Gully F1886 or the two formed some manner of double-ditched boundary traversing earlier Enclosure 5. Despite the 'disarticulated' nature of these six features, a single rough estimation of enclosure size is possible. It is conceivable that parallel Gullies F1550 and F2047 represented the north-western and south-eastern limits of a rectilinear enclosure (Enclosure 7), the north-eastern boundary of which comprised F1882/F1886 (Fig. 27). If the north-eastern terminus of Ditch F1866 is taken to represent the south-westernmost extent of this enclosure, then an internal area of approximately 391m² is calculable. No meaningful measurement of Enclosure 6 is possible however. Ditch F1882 of this group yielded the greatest finds assemblage, comprising five sherds (47g) of mid-2nd to 4th century pottery, CBM (21g), shell (59g), worked stone (139g) and animal bone (974g). The faunal assemblage comprises elements of cattle, horse, sheep/ goat, large terrestrial mammal and medium terrestrial mammal, as well as a single element of possible badger (*Meles meles*; Cussans 2012). The cattle remains were mostly head bones and displayed 'chop' marks consistent with decapitation (*ibid.*). Intercutting Gully F1886 yielded the largest ceramic assemblage of this group, comprising 21 sherds (476g) of Roman pottery including six intrusive 3rd century sherds. Fill L1887 of this feature also yielded elements of a copper alloy repousse disc plate brooch of probable 2nd century date (Cooper this report – *The small finds*).

Three further linear features appeared associated with Roman Sub-Phase 2 Enclosure System 2; Gully F2021 (Grid Square L16) and Ditches F1491 (Grid Square K17-L16) (Fig. 20) and F3223 (Grid Square Q17-R17) (Fig. 27). The latter survived to a length of c. 5m and may have formed a north-east to south-west return of Gully F1886 (Grid Square P18-R17; see above). Broad Ditch F1491 was heavily truncated by later features, though possibly represented a recut of earlier Gully F1497 in the northern corner of Enclosure 4 (see above). Ditch F1996 (Grid Square P15) was identified in section, cut by F1999 (Grid Square P16-R15; Roman Sub-Phase 2 Enclosure System 3) and may tentatively have been part of Roman Sub-Phase 2 Enclosure System 2. No small finds of any particular note were recovered from F1491 or F3223. Conversely, the assemblage from F1996 included 202g of possible pumice and 1891g of animal bone. The faunal assemblage comprises elements of cattle, horse, red deer and large terrestrial mammal, and includes evidence of canid gnawing (Cussans 2012). Gully F2021 was devoid of finds and was phased based solely on its stratigraphic relationship with later Roman Sub-Phase 2 Ditch F1451 (=1860; Grid Square L16-M17).

Roman Sub-Phase 2 Enclosure System 3

The third system of Roman Sub-Phase 2 enclosures in the northern quadrant of the site survived more fully and appeared more rectilinear than the preceding Roman Sub-Phase 2 Systems. It comprised at least five enclosures (numbered 8 to 12), apparently established with little or no regard for the position of earlier boundaries, although the overall alignment of the earlier systems was broadly adhered to. The major constituent features of this Enclosure System 3 are outlined in Table 23. The most coherent element of this third system was located in the far northern corner of

the site, where a series of uniform rectilinear enclosures were represented (Figs. 27-30). Further to the south-west, the features appeared more ephemeral; no doubt a result of later disturbance.

Enclosure 8 was delineated by Ditch F2917 (Grid Square Q19-R20), Ditch/ Gully F2701 (=2904; Grid Square N20-Q19) and Gullies F2069 (Grid Square P18-R21), F2753 (Grid Square P21-Q20) and F3212 (Grid Square Q20-R19). Disregarding a contradictory relationship with Ditch F2917, F2069 appeared to be a later addition to this arrangement. The relationship between F2069 and F2917 was redressed during post-excavation analysis in order to rationalise the relationships of both with Gully F3212. In its original form Enclosure 8 appears to have had at least two access points, the first between the opposing termini of Ditch F2917 and Ditch/ Gully F2701 (=2904; Grid Square Q19) and the second between the south-eastern terminus of Gully F2753 and the north-western terminus of Gully F3212 (Grid Square Q20). Although the northern limits of this enclosure lay beyond the excavated area, its interior can be said to have measured at least 310m². The subsequent digging of Gully F2069 blocked the south-eastern 'entrance'; F2069 appeared to supersede F2917 as the south-eastern enclosure boundary. This Gully also extended beyond the surviving north-eastern terminus of F2917 (Grid Square Q19), running beyond the excavation limit and effectively creating a boundary between two further (possible) enclosures (Enclosures 9 and 10). Finds from these features are mostly unremarkable; F2069 and F2701 (=2904) yielded modest quantities of Roman pottery, including 12 undiagnostic coarseware sherds from L2702 (F2701), in addition to animal bone (1414g combined) and trace CBM. The combined faunal assemblage comprises elements of cattle, horse, sheep/ goat, large terrestrial mammal and medium terrestrial mammal, as well as domestic dog (*Canis familiaris*) and rabbit/ hare (*Oryctolagus cuniculus/ Lepus capensis*) (Cussans 2012). Recovered cattle and sheep/ goat jaws display infection-related pathologies (*ibid.*). Of particular note however is a fragment of a copper alloy Colchester one piece brooch (SF36) recovered from Fill L3213 of Gully F3212 (Cooper this report – *The small finds*). Gully F2753 was devoid of finds.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1302=1552	Ditch	K13-L16	N-S	27.00+ x 0.46 x 0.22	Linear	Moderate	Flat
1451=1860	Ditch	L16-M17	c. NE-SW	15.00 x 0.76 x 0.42	Curvilinear	Steep	Concave
1470	Ditch	M18-Q17	WNW-ESE	40.45 x 1.70 x 0.60	Linear	Moderate	Concave
1495=1564	Gully	K17-L16	NW-SE	9.06 x 0.80 x 0.24	Linear	U-Shaped	Concave
1579	Ditch	K17-L17	NW-SE	10.39 x 0.69 x 0.34	Linear	Steep	Concave
1681	Ditch	K17	NW-SE(?)	1.93 x 1.40 x 0.41	Linear	U-Shaped	Flattish
1723	Ditch	P15-Q15	NW-SE	4.02 x 0.64 x 0.20	Linear	Gentle	Flat
1999	Ditch	P16-R15	NW-SE	22.82 x 2.40 x 0.68	Linear	Moderate	Concave
2039	Ditch	N17-Q19	NE-SW	24.00+ x 1.43 x 0.44	Linear	Moderate	Concave
2069	Gully	P18-R21	NE-SW	38.00 x 1.18 x 0.41	Linear	Moderate	Concave
2253=2319=3601	Ditch	P13-Q15	NE-SW	21.00 x 2.10 x 0.41	Linear	Moderate	Rounded
2388=2491=3595	Ditch	P14	NE-SW	7.75 x 1.00+ x 0.67	Linear	U-shaped	Concave
2701=2904	Ditch/Gully	N20-Q19	NW-SE	28.78 x 0.95 x 0.34	Linear	Moderate	Concave
2753	Gully	P21-Q20	NW-SE	12.60 x 0.63 x 0.65	Linear	U-Shaped	Concave
2917	Ditch	Q19	NE-SW	11.18 x 1.50 x 0.36	Linear	Moderate	Concave
2944	Gully	R19-S20	NE-SW	7.91 x 1.30 x 0.35	Linear	Steep	Concave
2948=2960	Gully	R19	NW-SE	6.42 x 0.27 x 0.70	Linear	Gentle	Rounded
3172	Gully	Q16-S18	ENE-WSW	25.16 x 1.96 x 0.55	Linear	Moderate	Concave
3212	Gully	Q20-R19	NW-SE	10.46 x 0.85 x 0.36	Linear	Moderate	Concave

Table 23: Principal features forming Roman Sub-Phase 2 enclosure system 3

The north-western interior of Enclosure 8 encompassed an intercutting series of three gullies: F2579 (=2703; Grid Square N20-P20), F2705 (Grid Square N20-P20)

and F2977 (Grid Square P20). These formed an inverted 'T'-shaped arrangement and may have functioned as internal partitions (Fig. 27). F2977 ran parallel to F2701 (=2904; Grid Square Q19) and F2753 (Grid Square P21-Q20), equidistant between the two. The north-western extent of F2977 and the north-eastern end of F2579 (=2703) were truncated by Roman Sub-Phase 4 Ditch F2573 (Grid Square N20 - Q20).

Enclosure 9 was delineated to the south-west by Gullies F2753 (Grid Square P21-Q20) and F3212 (Grid Square Q20-R19), and shared an entrance/ access with Enclosure 8 (Fig. 27). No meaningful estimate of internal size is calculable for Enclosure 9 based on its two surviving elements. To the immediate south-east, Gully F2069 formed the north-western boundary of a second possible enclosure (Enclosure 10) (Fig. 27), demarcated to the south-west by Gully 2948 (=2960; Grid Square R19) and the south-eastern section of Gully F3212. An approximately 1m-wide access between these two features may have existed, linking Enclosures 10 and 11 (Fig. 27). This possible 'entrance' may have been subsequently blocked by the digging of Gully F2944 (Grid Square R19-S20), an irregular feature which truncated the south-eastern terminus of F3212. Like Enclosure 9, too little of Enclosure 10 survived to permit measurement, although it appeared to encompass Gullies F2958 (Grid Square S19-S20) and F3659 (Grid Square S20). The only finds from Gully F2948 (=2960) are six sherds (69g) of Roman pottery, while F2958 yielded 16 sherds (238g) of early 2nd to mid-3rd century pottery. F3659 was devoid of finds. The latter was truncated by Roman Sub-Phase 4 Ditch F1992 (=2590=2950) and in turn cut Roman Sub-Phase 2 Layer L3651 (see below); this feature was tentatively assigned to this sub-phase based on these relationships.

The outline of Enclosure 11 survived to some extent on all four sides (Fig. 27). To the north-west, it was defined by Ditch F2039 (Grid Square N17-Q19) and Gully F2069 (Grid Square P18-R21)/ Ditch F2917 (Grid Square Q19); it is likely that Enclosure 11 was originally accessible from Enclosure 8. The south-eastern and south-western boundaries of Enclosure 11 comprised Gully F3172 (Grid Square Q16-S18) and Ditch F1470 (Grid Square M18-Q17) respectively. It is possible that the enclosure originally had three or more access points (the first is described above). The second was (tentatively) to the north-east between Gullies F3212 (Grid Square Q20-R19) and F2948 (=2960; Grid Square R19), while the third may have been a c. 5.5m wide gap between the termini of Ditch F1470 and Gully F3172. Finds from F1470 comprise 34 sherds (590g) of Roman pottery, worked stone (956g) and animal bone (2865g). The faunal assemblage comprises elements of cattle, horse, sheep/ goat, pig, dog, large terrestrial mammal and medium terrestrial mammal, and includes evidence of pathology, burning, and canid gnawing, plus possible working on one cattle scapula (Cussans 2012). Of particular note are a cone-shaped piece of lead (SF39; 38g), possibly a weight, from Fill L3173 of Gully F3172 and a torn, folded fragment of copper alloy sheet (SF48) from the same context (Cooper this report – *The small finds*). The only other lead weight recovered is from Roman Sub-Phase 4 Ditch F2567 (=2919=3150), while a fragment of copper alloy sheet was also recovered from Roman Sub-Phase 5 Ditch F5086 (*ibid.*).

The interior of Enclosure 11 measured some 540m² and completely enclosed the area occupied by earlier Enclosure 5. Also within the confines of this enclosure were Gully F3152 (Grid Square R18-S18) and Ditch F2911 (Grid Square P18-P19).

These appeared (stratigraphically) to form part of Roman Sub-Phase 2 Enclosure System 3, though their alignments bore little relation to the contemporary boundary features. F2911 may have been an earlier demarcation of Roman Sub-Phase 3 Ditch F2913 (Grid Square R17-R19; see below). Gully F2711 (Grid Square P19-R19; Fig. 27) was also at odds to the general orientation of features within Roman Sub-Phase 2 Enclosure System 3. This feature truncated Gully F2069 (Grid Square P18-R20) and ran broadly east to west. Finds from F2711 include 20 sherds (769g) of late 1st to early 2nd century pottery. Gully F3152 also yielded modest quantities of Roman pottery, while F2911 was devoid of finds.

Boundary Ditch F1470 (Grid Square M18-Q17) continued to the north-west, clearly defining part of a fifth enclosure (Enclosure 12) with Ditch F2039 (Grid Square N17-Q19) and Ditch/ Gully 2701 (=2904; Grid Square Q18-Q19; Fig. 27). The internal area of Enclosure 12 was at least 270m², though no access was identified. Ditch F1705 and Gully F1709 (Grid Square N19) partly traversed the interior of this enclosure, though were difficult to interpret due to their severely truncated nature. Finds from F1705 comprise five sherds (130g) of Roman pottery (not closely datable), animal bone (373g), shell (6g), elements of an iron structural fitting(s) (Cooper this report – *The small finds*) and one piece of residual struck flint. This assemblage is consistent with a midden-like material. F1709 was devoid of finds. Gully F1737 (Grid Square P18) was probably also associated with this enclosure, though was again heavily truncated. This feature cut Natural L1002 and was truncated at its western extent (visible in section only) by Ditch F1707. Finds from F1737 comprise three sherds (36g) of mid-2nd to 4th century pottery, animal bone (513g), CBM (100g) and Fe fragments (5g).

Towards the south-west of the northern quadrant, Roman Sub-Phase 2 Enclosure System 3 was far less coherent; possible north-east to south-west boundaries were represented by Ditches F1451 (=1860; Grid Square L16-M17), F2253 (=2319=3601; Grid Square P13-Q15), F2388 (=2491=3595; Grid Square P14), and the south-westernmost part of F2039 (Grid Square N17-Q19), while those aligned north-west to south-east comprised Ditches F1579 (Grid Square K17-L17), F1723 (Grid Square P15-Q15) and F1999 (Grid Square P16-R15), possible Ditch Terminus F1681 (Grid Square K17), and Gully F1495 (=1564; Grid Square K17-L16) (Figs. 20 and 27). A short section of c. east to west aligned gully (F1792; Grid Square N17) was also present; the western section of this feature was truncated by Roman Sub-Phase 3 Pit F1789 (Grid Square N17) and Ditch F1812 (Grid Square N17; Fig. 20). Another short truncated section of gully (F1744; Grid Square M15-M16) may have formed a continuation of the north-east to south-west alignment marked by F2039 though this remains tentative. Gully F2513 (Grid Square N12-P13; visible in section only) was cut by F2253. This feature may have been loosely contemporary to F2253 or part of an earlier system of enclosures. No other stratigraphic relationships existed although likely access points are postulated: the first (c. 1m-wide) between the south-eastern terminus of Ditch F1579 and the north-westward curvature of F1451 (=1860; Grid Square L17; Fig. 20), the second (c. 8m-wide) between the opposing termini of Ditches F2253 (=2319=3601) and F1999 (Grid Square Q15) and a smaller access point (c. 0.5m-wide) between the opposing termini of Ditches F1723 and F2253 (=2319=3601; Grid Square Q15) (Fig. 27).

Ditch F1457 (Grid Square M17-M18) was visible in section only. This feature was recorded as being successively recut by Roman Sub-Phase 3 Ditches F1464 (Grid Square M18-P17) and F1460 (Grid Square M18-P16), and was assigned to Roman Sub-Phase 2 accordingly. This feature was physically closest to and most likely associated with features forming elements of Roman Sub-Phase Enclosure System 3, i.e. Ditches F1470 (Grid Square M18-Q17) and F2039 (Grid Square N17-Q19). Finds from this heavily truncated feature comprise 22 sherds (261g) of Roman pottery (not closely datable), animal bone (4969g), CBM (376g), Fe fragments (59g) and shell (64g). The sizable faunal assemblage comprises elements of cattle, horse, sheep/ goat, dog, large terrestrial mammal and medium terrestrial mammal, and includes evidence of canid gnawing and butchery (Cussans 2012). F1457 was itself a recut of Roman Sub-Phase 2 Gully F1514 (Grid Square M17-M18). The latter yielded just 348g of animal bone and, though likely an earlier demarcation of F1457, cannot be confidently associated with any of the Roman Sub-Phase 2 enclosure systems. A further (possible) ditch cut was recorded below F1514 and, like this gully, cannot be confidently placed within the Roman Sub-Phase 2 sequence of enclosures. The single fill of F1613 yielded no finds of any description and it was tentatively phased based on its stratigraphic relationships.

The dispersed nature of ditches and gullies in the south-western part of the northern quadrant prevented identification of discrete enclosures, though it is reasonable to suggest that the surviving features represented a continuation of the rectilinear System 3 layout outlined above (Enclosures 8-12; Fig. 27). Roughly parallel Roman Sub-Phase 2 Ditches F2253 (=2319=3601; Grid Square P13-Q15) and F2388 (=2491=3595; Grid Square P14) may have formed a short section of trackway or small enclosed space, though this remains tentative. Similarly, Ditch F1723 (GS P15-Q15) displayed a possible relationship with both F2253 (=2319=3601) and F1999 (Grid Square P16-R15), potentially forming a small livestock corral or similar, though the contemporaneity of these features was questionable. The 'corral' measured at least 52m² (internally). Intercutting Ditches F1911 (Grid Square P15), F1935 (Grid Square P15) and Gully F1915 (Grid Square P15) were present to the west of Ditch F1723, though were heavily truncated and largely devoid of finds. F1935 yielded a single sherd of Roman pottery (not closely datable) and a modest amount of CBM. Most other Enclosure System 3 features in this area yielded few finds. The combined animal bone assemblage from these boundary features corresponds to those from other ditches and gullies within Roman Sub-Phase 2 Enclosure System 3.

Thirteen smaller features in the far north of the northern quadrant were interpreted as having been contemporary to Roman Sub-Phase 2 Enclosure System 3. Three of these, Gullies F1713 (Grid Square L15), F1715 (Grid Square L15) and F2003 (Grid Square M15-M16), ran parallel to boundary Ditch F1302 (=1552; Grid Square K13-L16) immediately to the south and may have been directly associated with the latter. Ditch F1669 (Grid Square L14-M15) was also noted to the south of these gullies, truncated at its north-western end by Gully F1381 (Grid Square K15-M15; Roman Sub-Phase 3), and may have been functionally similar. Gully F3597 (Grid Square Q14) was identified a short distance to the south-east of Ditch F2253 (=2319=3601; Grid Square P13-Q15), though yielded few finds and was functionally indistinct. The south-eastern section of Gully F2326 was cut by Ditch F2253 (=2319=3601); this feature yielded 2 sherds (18g) of Roman pottery, CMB (393g) and animal bone

(111g). The nature of the remaining ditches and gullies in this area remains equally uncertain; none yielded finds of any particular note.

Possible Roman Sub-Phase 2 double-ditched boundary and associated ditches/gullies

Four identically aligned boundary ditches (Table 24) were located c. 18 to 29m south-east of Roman Sub-Phase 2 Ditches F2253 (=2319=3601; Grid Square P13-Q15) and F1999 (Grid Square P16-R15; Roman Sub-Phase 2 Enclosure System 3), in the south-east corner of the northern quadrant (Figs. 31-32). Contiguous Ditches F4592 (Grid Square S14-U15) and F4598 (Grid Square R13-S14) ran north-east to south-west for approximately 34m, barely separated by a narrow break at their midpoint. This likely represented access between areas separated by these ditches and was emulated by Ditches F4587 (Grid Square S14-T15) and F4600 (Grid Square R14-S14) immediately to the north-west. Although the respective gaps between these features were small, their arrangement was clearly purposeful. It is possible that the narrowness of the gap between these features was deliberate so as to allow human movement but restrict that of livestock, like a modern stile or cattle grid. It is also possible that a bridge of some description traversed this point; both interpretations remain tentative however. The shorter ditches slightly truncated the north-western edges of their longer counterparts and were also different in profile. They may therefore have been secondary to the original boundary, or perhaps formed a double-ditched boundary flanking the north-west to south-east 'access'. This clear boundary was aligned with Enclosure System 3 Gully F3172 (Grid Square Q16-S18), approximately 29m to the north-west, and may well have formed part of a large rectilinear enclosure with this feature. Furthermore, Ditches F4592 and F4598 respectively truncated similarly aligned Roman Sub-Phase 1 Ditches F4594 (Grid Square T14) and F4614 (Grid Square R13-S14), attesting to some continuity of landscape divisions between Roman sub-phases.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
4587	Ditch	S14-T15	NE-SW	6.09 x 0.95 x 0.58	Linear	Steep	Flat
4592	Ditch	S14-U15	NE-SW	14.86 x 0.98 x 0.14	Linear	Gentle	Rounded
4598	Ditch	R13-S14	NE-SW	59.11 x 1.94 x 0.56	Linear	U-Shaped	Concave
4600	Ditch	R14-S14	NE-SW	9.99 x 1.70 x 0.52	Linear	Moderate	Flattish

Table 24: Possible Roman Sub-Phase 2 double-ditched boundary

A group of six, largely intercutting, Roman Sub-Phase 2 ditches and gullies were recorded following a c. north-west to south-east alignment along the north-eastern edge of the northern quadrant (Table 25; Figs. 31-32). Among the earliest of these was Ditch F3721 (Grid Square V16-W14), the north-western section of which lay approximately 13.4m to the north-east of boundary Ditch F4592 (Grid Square S14-U15). It seems likely that these features formed the north-eastern edge of a large rectilinear enclosure, delineated to the north-west by the above (possible) double-ditched boundary, and encompassing Roman Sub-Phase 2 Spread L3718 (Fig. 31). The southernmost features of this group, Gullies F3795 (Grid Square W13-X13) and F3797 (Grid Square W13-X12), represented successive recuts of Roman Sub-Phase 1 Gully F3793 (Grid Square W13-X12), again demonstrating continuity of boundary locations over time. The six features were morphologically comparable and their (largely individual) fills were similar. Given the nature of their fills, it appears likely that these features were cut, filled and recut successively within a relatively short time span; this might account for the somewhat piecemeal nature of this boundary.

Parallel Ditches F3725 (Grid Square V14-W13) and F3877 (Grid Square W14) were later within the stratigraphic sequence and may have represented a short section of track or double-ditched boundary.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
3721	Ditch	V16-W14	NW-SE	22.16 x 1.15 x 0.42	Linear	Moderate	Flat
3723	Ditch	V15-V16	NW-SE	11.76 x 0.59 x 0.31	Linear	Moderately steep	Flattish
3725	Ditch	V14-W13	NW-SE	15.81 x 1.25 x 0.53	Linear	Moderately steep	Concave
3795	Gully	W13-X13	NW-SE	5.93 x 0.35+ x 0.30	Linear	Moderate	Concave
3797	Gully	W13-X12	NW-SE	9.43 x 0.40+ x 0.29	Linear	Moderate	Flattish
3877	Ditch	W14	NW-SE	7.38 x 1.50 x 0.50	Linear	Moderate to steep	Concave

Table 25: North-west to south-east aligned boundary features running along the north-eastern edge of Areas 3 and 4

Only three of the features making up this probable enclosure boundary yielded finds. Ditches F3721, F3723 and F3725 all contained Roman pottery, including Late 1st to 2nd century sherds, and animal bone. The greatest faunal assemblage (by weight; 1459g) came from Ditch F3725 and comprises elements of cattle, horse, medium terrestrial mammal and large terrestrial mammal, the latter including a large number of ribs and vertebrae (Cussans 2012). This feature also yielded CBM (64g) and burnt stone (93g) in addition to sparse shell and Fe fragments.

Roman Sub-Phase 2 ditches and gullies in the south-eastern and south-western quadrants

Three distinct groupings of Roman Sub-Phase 2 ditches and gullies were identified in the south-eastern and south-western quadrants. Although these groupings no doubt formed parts of the same landscape system(s) defined by Roman Sub-Phase 2 Enclosure Systems 1 to 3 (see above), they were stratigraphically isolated from these and will be individually considered.

Southern Roman Sub-Phase 2 Linear Group 1

The eastern-most of these groups (Table 26) lay c. 23m south-west of Roman Sub-Phase 2 Gully F3797 (Grid Square W13-X12) and comprised 11 features entirely within the south-eastern quadrant (Figs. 33-34). These formed the boundaries of at least two individual enclosures, the first of which, Enclosure 13, was rectilinear and defined by Gullies F4873 (Grid Square T10-U11) and F4877 (Grid Square T12-U11). The north-western part of this enclosure fell partially within MNL 608 (excavated by SCCAS) but was otherwise obscured by a tree preservation area. That part exposed within the current site measured c. 136m² (internally) and included a tentative 'entrance' marked by the south-western terminus of Gully F4873 (Grid Square T10); any potentially corresponding ditch/ gully terminus was obscured by the tree preservation area.

Gully F4957 (=5047; Grid Square T10-U12) ran north-east to south-west across Enclosure 13 and truncated Gully F4877 (Grid Square T12-U11). This later ditch may have served to sub-divide the interior of Enclosure 13. The north-eastern end of F4957 (=5047) cut the edge of Ditch F4964 (Grid Square U11-U12) which followed a similar alignment. Ditch F5025 (Grid Square T11-U11) was truncated by the midpoint of F4957 and ran south-eastwards, possibly forming an earlier boundary or incomplete division of space. Only Gully F4957 (=5047) yielded finds,

comprising three sherds (42g) of Roman pottery (not closely datable), 14g of animal bone and 78g of slag; these features were phased based on their stratigraphic relationship to overlying Roman Sub-Phase 3 features.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
4271	Gully	U7	NE-SW	2.98 x 0.50 x 0.18	Linear	Steep	Concave
4873	Gully	T10-U11	NE-SW & NW-SE	13.00+ x 0.90 x 0.38	Curvilinear	Shallow	Concave
4877	Gully	T12-U11	NW-SE	8.00+ x 0.76 x 0.26	Linear	Moderate	Flattish
4957=5047	Gully	T10-U12	NE-SW	17.50+ x 0.75 x 0.39	Linear	Moderate	Flattish
4964	Ditch	U11-U12	NE-SW	9.10+ x 0.92 x 0.43	Linear	Moderate	Concave
4971	Ditch	T11	NW-SE	2.54+ x 0.55 x 0.18	Linear	Moderate	Concave
5025	Ditch	T11-U11	NW-SE	1.35 x 0.24 x 0.13	Linear	Steep	Concave
5029	Ditch	T9-U8	NW-SE	6.50 x 1.10+ x 0.60	Liner	Steep	Flat
5073	Gully	U10-V10	NE-SW	9.55+ x 0.70 x 0.30	Linear	Moderate	Concave
5117=5148	Gully	U9-V9	Curvilinear	12.20 x 0.82 x 0.26	Curvilinear	Moderate	Flattish
5160	Gully	V9	NNW-SSE	5.15+ x 0.30 x 0.11	Linear	Gentle	Concave

Table 26: Southern Roman Sub-Phase 2 linear feature grouping 1

Gully F5073 (Grid Square U10-V10) was found approximately 7m to the south-east of Gully F4873 (north-east to south-west aligned section; Grid Square T10-U11), and ran parallel to the latter (Fig. 33). It is possible that this feature represented part of the same Roman Sub-Phase 2 enclosure system encompassing F4873, though this cannot be proven. This feature was heavily truncated by later activity and its north-eastern extent was completely obscured by Roman Sub-Phase 5 Ditch F5071 (Grid Square U10-V10). Gully F5073 yielded no finds.

Still further to the south-east, Ditch F5029 (Grid Square T9-U8) and Gullies F5117 (=5148; Grid Square U9-V9) and F5160 (Grid Square V9) appeared to represent an open-ended sub-square enclosure (Enclosure 14), partially obscured by the excavation edge (Fig. 33). Curvilinear Gully F5117 (=5148) followed an east to west/north-west to south-east alignment; truncated Gully F5160 may have formed a short continuation of this boundary before also terminating c. 3.5m to the south-east. Ditch F5029 was located approximately 9.5m to the south-west of F5117 (=5148) and followed a parallel course before terminating in Grid Square U8. Bar the north-western section of truncated Gully F5160 (Grid Square V9) all three features had survived relatively intact, and partially enclosed an area of c. 112m². Relatively few later features were present in the area immediately to the south and it is likely that the excavated portion of Enclosure 14 was essentially representative of its original layout; the south-western termini of all three constituent features were present. Finds from F5029 and F5117 (=5148) jointly comprise a single sherd (3g) of Roman pottery, 48g of animal bone and 493g of possible smithing hearth bottom (Newton this report – *The slag*).

A final outlier of this group, Gully F4271 (Grid Square U7), was located c. 18.5m to the south of Ditch F5029 (Fig. 33). This short feature was oriented north-east to south-west and was partially truncated at its south-western end by Roman Sub-Phase 3 Gully F4269 (Grid Square U7). The single fill of F4271 yielded no finds and its Roman Sub-Phase 2 date remains tentative. However, although varying quite considerably in profile, the above features were all consistently aligned and contained uniform fills. Consequently, it is highly likely that they represented broadly contemporary features within Roman Sub-Phase 2.

Southern Roman Sub-Phase 2 Linear Group 2

The second southern grouping of Roman Sub-Phase 2 ditches and gullies (Table 27) was located on the eastern edge of the south-western quadrant (Figs. 35-36). All of the features in this group contained comparable fills and, bar Gully F3489 (Grid Square P8-Q8), were aligned c. north-east to south-west or north-west to south-east. Only two of these features (Ditches F3443 (Grid Square P9-Q8) and F3469 (Grid Square N10 and P11-Q11) yielded notable finds, including 21 sherds (246g) of Roman pottery (not closely datable) from the fill of F3469 (L3470). Other finds from this group include 379g of slag, also from L3470, and 438g of animal bone from Ditch F3406. The fill of Gully F3943 (L3944) produced a small but eclectic assemblage of residual struck flint (one piece; 12g) and intrusive medieval pottery (two sherds; 29g), the source of which remains unclear. Residual early Iron Age pottery, also of uncertain origin, was recovered from Gully F3363 (Grid Square Q10-R10). The tree preservation area, immediately to the east of these features, potentially concealed activity that would have accounted for these finds.

The uniformity of these features and similarities between their respective fills makes it likely that they functioned in unison as part of an enclosure system. No single enclosed area had survived in a measurable state however, although evenly spaced north-west to south-east oriented features F3390 (Grid Square Q10-R9), F3406 (Grid Square Q9) and F3443 (Grid Square P9-Q8; c. 5 to 5.5m apart) may have denoted closely-set boundaries or sub-divisions of space within a larger unidentified enclosure or field. Short Gully F3414 (Grid Square R9) was truncated at its north-eastern end by Gully F3390 and potentially represented a 'return' to this possible boundary feature. However, F3414 was also truncated by Roman Sub-Phase 3 Gully F3392 (Grid Square Q9-R9) and its original extent could not be determined.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
3363	Gully	Q10-R10	NE-SW	4.09 x 0.36 x 0.10	Linear	Gentle	Rounded
3390	Gully	Q10-R9	NW-SE	9.05 x 0.36 x 0.12	Linear	Gentle	Rounded
3396	Gully	Q9-Q10	NW-SE	2.55 x 0.32 x 0.16	Linear	Gentle	Rounded
3406	Ditch	Q9	NW-SE	8.62 x 0.63 x 0.25	Linear	Moderate	Rounded
3410	Gully	P10-Q10	NE-SW	8.49 x 0.36 x 0.26	Linear	Moderate	Rounded
3414	Gully	R9	NE-SW	1.24 x 0.24 x 0.60	Linear	Moderate	Rounded
3443	Ditch	P9-Q8	NW-SE	7.50+ x 0.73 x 0.51	Linear	Steep	Concave
3469	Ditch	N10 & P11-Q11	NW-SE	25.99 x 0.53 x 0.17	Linear	Steep	Flat
3489	Gully	P8-Q8	E-W	1.57 x 0.15 x 0.08	Linear	Gentle	Rounded
3943	Gully	Q10-Q11	NE-SW	5.11 x 0.40 x 0.14	Linear	Steep	Concave

Table 27: Southern Roman Sub-Phase 2 linear feature grouping 2

Gully F3410 (Grid Square P10-Q10) and Ditch F3469 (Grid Square N10 and P11-Q11), within the northern part of this grouping, may have represented two substantial elements of a rectilinear enclosure. Unfortunately however, the eastern extremities of both were obscured by the tree preservation area. The extrapolated courses of these features would have met at a slightly acute angle c. 2.7m to the east of the excavation edge. The profiles of these features were different however, potentially undermining any functional association between them. Although mainly recorded in section, the course of F3469 was traced to the west, emerging once more on a north-north-east to south-south-west alignment in Grid Square N10. This feature was heavily disturbed by later activity. None of these ditches and gullies aligned convincingly with those to the east of the tree preservation area (Southern Roman

Sub-Phase 2 Linear Group 1) or those of Southern Roman Sub-Phase 2 Linear Group 3, to the west.

Southern Roman Sub-Phase 2 Linear Group 3

The third group of Roman Sub-Phase 2 ditches and gullies in the south of the site was the largest, comprising nineteen individual features (Table 28) within the south-western quadrant (Figs. 37-39). However, this grouping was also arguably the least coherent, incorporating as it did a large number of differently aligned and intercutting features. Among the stratigraphically earliest of these were short intercutting Gullies F4058 and F4060 (Grid Square K8). These features yielded only small quantities of animal bone (184g combined) and both were assigned to Roman Sub-Phase 2 on stratigraphic grounds. Later Gully F4038 (Grid Square J8-M9) followed a regular course across this area of the site, parallel to Gully F4092 (Grid Square J8-J9) and truncated the western end of Gully F4060. F4092 yielded just one sherd (44g) of undiagnostic Roman pottery. The orientation of Gully F4038 was broadly mirrored by other Roman Sub-Phase 2 features in the vicinity, including Gullies F3907 (Grid Square L8), F3949 (Grid Square K7-M9) and part of Ditch F4052 (Grid Square L8-L9) to the south, and Gullies F4228 (=4309; Grid Square L9), F4373 (Grid Square K10) and Ditch F4130 (Grid Square M10) and part of Ditch F4389 (Grid Square J10-K10) to the north. Although dispersed across the south-western quadrant, the somewhat similar orientation of these ditches and gullies was strongly suggestive of their contemporaneity. The fills of these features were less similar however. It is tentatively possible that these features formed a c. 35m long section of broad trackway or droveway (c. 8.5m wide) running approximately north-east to south-west across the south-west quadrant (Fig. 37). The north-eastern extent of this possible route was wholly truncated by modern building foundations however, whilst its south-western course continued beyond the excavated area.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
3907	Gully	J9-J10	NE-SW	6.99 x 0.27 x 0.15	Linear	Moderate	Concave
3949	Gully	K7-M10	NE-SW	4.53 x 0.44 x 0.35	Linear	Steep	Concave
4010	Gully	J9-K8	NNW-SSE	9.73 x 0.55 x 0.24	Linear	Steep	Flattish
4038	Gully	J8-M9	ENE-WSW	35.00 x 0.88 x 0.15	Linear	Gentle	Concave
4052	Ditch	L8-L9	Curvilinear	7.65 x 0.95 x 0.35	Curvilinear	Steep	Concave
4058	Gully	K8	E-W	2.61 x 0.25+ x 0.16+	Linear	Moderate	Flattish
4060	Gully	K8	Curvilinear	2.61 x 0.45 x 0.17	Curvilinear	Moderate	Flattish
4065	Gully	J9-J10	Curvilinear	14.43 x 1.20 x 0.33	Curvilinear	Moderate	Concave
4067	Gully	J9	NNW-SSE	2.96 x 0.21+ x 0.32	Linear	Very steep	Concave
4088	Gully	K8	ENE-WSW	2.64 x 0.28 x 0.09	Linear	Steep	Flattish
4090	Gully	J8-M10	NE-SW	35.30 x 2.06 x 0.82	Linear	Steep	Concave
4092	Gully	J8-J9	Curvilinear	5.11 x 0.20+ x 0.40	Curvilinear	Very steep	Concave
4130	Ditch	M10	NE-SW	4.80+ x 0.75 x 0.25	Linear	Moderate	Flat
4228=4309	Gully	L9	NE-SW	3.58 x 0.51 x 0.13	Linear	Gentle	Concave
4246	Gully	K9-L9	NW-SE	1.80 x 0.42 x 0.15	Linear	Gentle	Concave
4373	Gully	K10	NE-SW	2.18 x 0.28 x 0.10	Linear	Gentle	Concave
4389	Ditch	J10-K10	Curvilinear	17.35 x 1.00 x 0.36	Curvilinear	Steep	Concave
4562	Ditch	K10-L11	Curvilinear	4.10 x 1.16 x 0.48	Curvilinear	V-shaped	Concave
4568	Gully	K10	NW-SE	4.58 x 0.56 x 0.38	Linear	Gentle	Concave

Table 28: Southern Roman Sub-Phase 2 linear feature grouping 3

Five of the c. north-east to south-west aligned ditches and gullies within Southern Roman Sub-Phase 2 Linear Group 3 yielded modest quantities of Roman pottery, collectively spanning the 1st to 4th centuries AD. Ditch F4389 (Grid Square J10-K10) yielded the greatest pottery assemblage, comprising 24 sherds (428g) including 18 1st to 2nd century examples. Roman pottery was also recovered from F3949 (Grid

Square K7-M10), F4038 (Grid Square J8-M9), F4130 (Grid Square M10) and F4228 (=4309; Grid Square L9). The latter also yielded 2043g of animal bone comprising elements of cattle, large terrestrial mammal and a possible example of young crane (*Grus* sp.) (Cussans 2012). One element of cattle skull from F4228 (=4309) displays possible scorching (*ibid.*). An environmental sample of L3949 yielded nothing of significance. Other finds from these eight features include modest quantities of CBM, Fe, shell and residual flints; Gullies F3907 (Grid Square J9-J10) and F4373 (Grid Square K10), and Ditch F4052 (Grid Square L8-L9) were devoid of finds.

Seven features within this group were oriented c. north-west to south-east. These comprised Gullies F4010 (Grid Square J9-K8), F4065 (Grid Square J9-J10), F4067 (Grid Square J9), F4246 (Grid Square K9-L9), F4562 (Grid Square K10-L11), F4568 (Grid Square K10) and the north-north-west to south-south-east 'return' of Ditch F4052 (Fig. 37). However, it remains uncertain how these related to the perpendicular features outlined above. These features were largely truncated. Finds include modest quantities of Roman pottery (not closely datable), CBM and animal bone; Gullies F4067 (Grid Square J9) and F4568 (Grid Square K10) were devoid of finds. Consequently, these ditches/ gullies were tentatively assigned to Roman Sub-Phase 2 based on their locations in respect to more closely dated/ stratified Roman Sub-Phase 2 features. Gully F4010 (Grid Square J9-K8) may have formed part of a sub-square enclosure with Gullies F3949 and F4038, though the former was stratigraphically earlier.

Gully F4090 (Grid Square J8-M10) was late within this group and traced a meandering north-east to south-west path across the south-western quadrant. Although loosely aligned with the majority of Roman Sub-Phase 2 linear features in this part of the site, the 'snaking' nature of this gully did not reflect the remainder of the group. It is possible that this feature related to curvilinear Gully F4065 (Grid Square J9-J10), also late within the immediate stratigraphic sequence. The respective termini of these gullies lay c. 6m apart, possibly forming the 'entrance' of some kind. Despite its incongruous nature, Gully F4090 yielded the largest finds assemblage of any Roman Sub-Phase 2 feature in the immediate vicinity, including 89 sherds (2659g) of Roman pottery, including 20 2nd century examples, and 5466g of animal bone, comprising elements of cattle, horse, sheep/ goat, pig, dog, large terrestrial mammal, medium terrestrial mammal and small terrestrial mammal⁶. The latter may have been from a cat (*Felis catus*; Cussans *pers. comm.*). Other finds from this feature comprise CBM (491g), Fe fragments (99g), possible tap slag (143g), pumice (299g), burnt stone (96g) and residual struck flint (20g) from Segment F, likely derived from nearby Period I features.

The strong broadly north-east to south-west alignment observed within this grouping of Roman Sub-Phase 2 ditches and gullies, would tend to suggest that they formed elements of trackways or similar running eastwards towards the enclosed rectilinear 'systems' of Southern Groups 1 and 2 (see above). The east-north-east to west-south-west alignment of extensive Gully F4038 (Grid Square J8-M9) may have been continued by Gully F2462 (Grid Square G8) to the west of modern Skelton's Drove (western-quadrant; Fig. 19), further supporting this interpretation. There was also a

⁶ Not identifiable to species (cat sized and smaller)

comparative lack of perpendicular ditches and gullies in the vicinity, suggesting that these features did not represent enclosure boundaries or similar.

Dispersed Roman Sub-Phase 2 ditches and gullies

The remaining Roman Sub-Phase 2 ditches and gullies are summarised in Table 29. Short Gully F3614 lay between the possible double-ditched boundary comprising Ditches F4587, F4597, F4598 and F4600 (see Table 24), and the intersecting Roman Sub-Phase 2 enclosure systems in the northernmost corner of the site. However, this Gully was differently aligned to neighbouring Roman Sub-Phase 2 ditches and gullies and did not appear to relate to any. This feature contained no finds and was phased based solely on its stratigraphic relationship with overlying Roman Sub-Phase 2 Layer L3609.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1048	Ditch	B5	NW-SE	6.50 x 0.90 x 0.22	Linear	Gentle	Concave
1161	Ditch	E8-E9	Curvilinear	14.23 x 0.50 x 0.20	Curvilinear	U-shaped	Concave
2355	Ditch	F8	NE-SW	3.67 x 0.35 x 0.80	Linear	V-shaped	Concave
2397	Ditch	G9-G10	NW-SE	10.58 x 1.35 x 0.53	Linear	Gentle	Concave
3029	Gully	E4-F3	NW-SE	9.81+ x 1.10 x 0.36	Linear	Gentle	Concave
3614	Gully	R15-S15	E-W	4.08 x 0.40 x 0.17	Linear	Moderate	Concave

Table 29: Dispersed and functionally indistinct linear features

Ditches F1161 (Grid Square E8-E9) and F2355 (Grid Square F8) were located c. 10m apart in the western site quadrant. The former constituted a long curvilinear feature, heavily truncated by later Roman and modern activity, while the latter was much shorter though similarly truncated. Both features contained comparable fills and yielded similarly dated small pottery assemblages (2nd century AD). However, the level of later disturbance in this area of the site made it difficult to otherwise relate these ditches or determine their function(s).

Substantial Ditch F2397 (Grid Square G9-G10), also in the western quadrant, displayed a possible relationship with Gully F2462 (Grid Square G8; see above) c. 9m to the south. Despite the distance between them, these features were aligned approximately perpendicular to one another and may tentatively have formed the corner of a large rectilinear enclosure. The fills of these features were practically identical, though only F2397 yielded finds, comprising ten sherds (283g) of Roman pottery; the diagnostic element of this assemblage dates to the early/ mid-2nd century AD. Ditch F3029 (Grid Square E4-F3) lay approximately parallel to F2397 (Grid Square G9), some 55m to the south-south-west. Unlike the latter however, F3029 yielded no finds and was assigned to Roman Sub-Phase 2 based solely on its relationships with overlying features. The association between this feature and other Roman Sub-Phase 2 ditches and gullies remains uncertain.

Another substantial Roman Sub-Phase 2 linear feature, Ditch F1048 (Grid Square B8), was present in the south-western corner of the western quadrant. Although aligned north-west to south-east (typical of many Roman Sub-Phase 2 ditches and gullies features), this F1048 was completely isolated. The only finds from this feature comprise burnt 'boiling' stones (336g) and animal bone (128g). Ditch F1048 was tentatively assigned to Roman Sub-Phase 2 based on its stratigraphic relationships with an underlying Roman Sub-Phase 1 pit cluster (1 of 2; see above).

The Roman Sub-Phase 2 pits

Of the 45 Roman pits assigned to this sub-phase, 14 appeared to form possible pairs or loose feature clusters.

Roman Sub-Phase 2 pit pair

A possible pair of Roman Sub-Phase 2 pits (Table 30) was identified in the northern site quadrant (Fig. 40). Although found adjacent to one another, Pits F1871 and F1873 (Grid Square P18) were significantly different in their overall morphology. Nonetheless, the individual fills of these features (L1872 and L1874) were identical. The pits were located within the confines of Enclosure 7 (see above), with which they were likely associated. A modest quantity of animal bone (207g) was recovered from the fill of Pit F1873 (L1874).

Feature	GS	Size (m)	Plan	Profile	Base
1871	P18	1.37 x 0.97 x 0.80	Oval	Moderate	Concave
1873	P18	2.80 x 1.24 x 0.17	Sub-rectangular	Gentle	Flat

Table 30: Roman Sub-Phase 2 pit pair (1 of 2)

The second possible pairing of Roman Sub-Phase 2 pits, F4469 and F4475 (Grid Square K9; Table 31) was found in the south-western quadrant, within the confines of Southern Roman Sub-Phase 2 Linear Group 3 (Fig. 41). These pits contained similar fills and were positioned adjacent to one another between Gullies F4065 (GS J9-J10) and F4090 (GS J8-M10). It is possible therefore, that these features were associated with the enclosure formed by these gullies. However, the combined Roman pottery assemblage recovered from these pits (six sherds; 21g) is not closely datable. Other finds from F4475 (L4476) comprise Fe fragments (25g), residual struck flint (3g) and 1504g of animal bone. Identified faunal species comprise cattle and horse and include the humerus of a (possible) small pony (Cussans 2012).

Feature	GS	Size (m)	Plan	Profile	Base
4469	K9	1.71 x 1.70 x 1.10	Oval	Steep	Flat
4475	K9	1.10 x 1.00 x 0.68	Oval	Moderate	Flattish

Table 31: Roman Sub-Phase 2 pit pair (2 of 2)

The Roman Sub-Phase 2 pit clusters

A cluster of three Roman Sub-Phase 2 pits was present in the northern quadrant (Grid Square N17-P17; Table 32; Fig. 42). These pits were of broadly comparable size and morphology, and two (F2101 and F2103) contained identical fills. Pit F2099 cut the fill of Ditch F1470 and was cut in turn by Ditch F2039 (both constituent features of Roman Sub-Phase 2 Enclosure System 3), and was therefore firmly datable. In contrast, Pits F2101 and F2103 were cut into Natural L1002 and were sealed by Period III Subsoil L1090; these features were phased based largely on their location in respect to stratigraphically secure Pit F2099. Pit F2103, however, also yielded two sherds (22g) of 2nd to early/ mid-3rd century pottery.

Feature	GS	Size (m)	Plan	Profile	Base
2099	P17	0.28 x 0.20 x 0.25	Oval	Moderately steep	Concave
2101	N17-P17	0.50 x 0.26 x 0.11	Sub-oval	Moderately steep	Concave
2103	P17	0.50 x 0.40 x 0.21	Sub-rectangular	Moderately steep	Flat

Table 32: Roman Sub-Phase 2 pit cluster 1

A cluster of seven Roman Sub-Phase 2 pits was encountered in the northern quadrant (Grid Square V14; Table 33; Fig. 43). This cluster was partially intercutting (Pit F4805 cut F4871; Pit F4818 cut F4816) and was loosely aligned west-south-west to east-north-east. The closest Roman Sub-Phase 2 features to these pits were Ditches F3721 (Grid Square V16-W14) and F3725 (Grid Square V14-W13; Table 25) and this cluster appeared to occupy the north-eastern edge of a possible rectilinear 'enclosure' partially defined by these ditches and the (possible) Roman Sub-Phase 2 double-ditched boundary outlined above (Table 24). With the exception of Pit F4871, these pits displayed similar fills and none yielded finds of any type. As such, the majority were assigned to Roman Sub-Phase 2 based on their stratigraphic relationships with overlying features, principally Roman Sub-Phase 3 Pit F4807 (VG V14) and Gully F3801 (Grid Square V14-X12). Pit F4810 was tentatively assigned to Roman Sub-Phase 2 based on its location in respect to neighbouring Pit F4816, less than 1m to the south-east. The function(s) of these pits remains uncertain.

Feature	GS	Size (m)	Plan	Profile	Base
4805	V14	1.02 x 0.78 x 0.23	Sub-circular	Gentle	Concave
4810	V14	0.10+ x 0.56 x 0.10	Unknown	Unknown	Concave
4812	V14	2.44 x 0.80 x 0.14	Sub-oval	Gentle	Flattish
4814	V14	1.20 x 0.70 x 0.20	Sub-circular	Gentle	Flat
4816	V14	1.61 x 0.80 x 0.24	Oval	Moderate	Flattish
4818	V14	1.08 x 0.32 x 0.40	Oval	Moderate	Concave
4871	V14	0.20+ x 0.60 x 0.22	Sub-circular	Steep	Flattish

Table 33: Roman Sub-Phase 2 pit cluster 2

Dispersed Roman Sub-Phase 2 pits

The remaining Roman Sub-Phase 2 pits (Table 34) were more dispersed. Twenty displayed probable associations with one or more of the three Roman Sub-Phase 2 Enclosure Systems in the northern quadrant or Southern Roman Sub-Phase 2 Linear Groups 2 or 3, though several of these relationships could not be stratigraphically validated.

The dispersed pits displaying associations with Roman Sub-Phase 2 Enclosure System 1 were F1299 (Grid Square L13), F1506 (Grid Square K16-M17) and F2105 (Grid Square N16). Pits F1506 and F2105 were respectively cut by Gullies F1366 (Grid Square K16-L16) and F1493 (=1909=2083; Grid Square K17-P15; Enclosure 4). As neither Pit cut any other Roman Sub-Phase 2 feature, they must have been either earlier than or associated with this early system of Roman Sub-Phase 2 enclosures. The only finds from either feature were recovered from L2106 (F2105) and comprise animal bone (388g), CBM (30g), pumice (100g) and two sherds (229g) of intrusive 4th century pottery, likely derived from Roman Sub-Phase 7 Ditches F1925 (Grid Square N16-P15) and F1942 (Grid Square N15-N16), c. 1.8-3.4m to the south-east. Pit F1299 (Grid Square L13) also appeared stratigraphically early within Roman Sub-Phase 2; this feature partially truncated the south-eastern terminus of Ditch F1282 (Grid Square L13-L14; Roman Sub-Phase 2 Enclosure System 1) and was located within the confines of Enclosure 4. Besides 479g of burnt stone, finds from Pit F1299 comprise just two sherds (15g) of late 1st to 2nd century pottery (SF7).

Feature	GS	Size (m)	Plan	Profile	Base
1299	L13	1.60 x 0.99 x 0.80	Sub-Circular	Gentle	Concave
1453	L16	1.29 x 0.79 x 0.10	Sub-Circular	Gentle	Concave
1474	M18	0.80 x 0.90 x 0.50	Square	Near-vertical	Flat
1506	K16-M17	0.48 x 0.20 x 0.17	Oval	Gentle	Unknown
1547	M18	1.06 x 1.50 x 0.33	Oval	Steep	Concave
1917	P15	0.45 x 0.23 x 0.45	Oval	Steep	Flat
2105	N16	1.66 x 1.97 x 0.53	Oval	Moderate	Concave
2223	G12-G13	2.13 x 0.63 x 0.40	Sur-rectangular	U-Shaped	Rounded
2535	P13	0.88+ x 0.70 x 0.16	Oval	Unknown	Concave
2725	Q20	0.75 x 0.44 x 0.50	Oval	U-shaped	Concave
2946	R20	1.19 x 1.10 x 0.15	Square	Moderate	Concave
3128	R19	1.56 x 1.80 x 0.95	Sub-oval	Steep	Flat
3142	P18	2.42 x 1.28 x 0.16	Rectangular	Gentle	Flat
3268	Q16	0.64 x 0.54 x 0.32	Sub-rectangular	Very steep	Flattish
3285	R17	1.49 x 1.48 x 0.98	Circular	Near-vertical	Unknown
3676	R15-R16 & S15-S16	3.42 x 3.36 x 1.07	Oval	Very steep	Concave
3688	S19	4.47 x 1.0 x 0.35	Irregular	Steep	Flat
3736	V15	1.87 x 1.40 x 0.78	Circular	Moderate	Concave
3759	W13-W14	2.64 x 2.15 x 0.50	Sur-rectangular	Steep	Flat
3803	P14	1.17 x 0.72 x 0.55	Oval	Steep	Concave
4020	K8	1.50 x 0.90 x 0.19	Oval	Gentle	Flat
4086	K8	0.51 x 0.40+ x 0.30	Circular	Very steep	Flat
4112	K9	0.70 x 0.35+ x 0.10	Oval	Gentle	Concave
4125	J9-K9	0.30+ x 0.10+ x 0.23	Oval	Moderately steep	Concave
4139	K9	0.92 x 0.87 x 0.23	Oval	Gentle	Concave
4214	K9	0.65+ x 0.24+ x 0.17+	Oval	Gentle	Unknown
4351	V7	0.30 x 0.30 x 0.20	Circular	Steep	Concave
4498	L12	0.55 x 0.41 x 0.26	Oval	Moderate	Concave
4512	K11	0.98+ x 0.47 x 0.41	Unknown	Steep	Concave
5162	V9	0.88 x 0.67 x 0.16	Oval	Irregular	Concave

Table 34: Dispersed Roman Sub-Phase 2 pits

The only dispersed pit displaying a possible association with Roman Sub-Phase 2 Enclosure System 2 was F3285 (Grid Square R17). This feature lay c. 1m to the east of Gully F1886 (Grid Square P18-R17; Roman Sub-Phase 2 Enclosure System 2) in the northern quadrant. Alternatively, this feature may have related to Enclosure 11 (Roman Sub-Phase 2 Enclosure System 3) within the confines of which it was located. Of the three fills encountered within this feature, only primary Fill L3288 yielded finds of any type, comprising three sherds (1055g) of Roman pottery (not closely datable). As such, this feature was only tentatively assigned to Roman Sub-Phase 2 based on its location in respect to datable features. Pit F3285 was heavily truncated by Roman Sub-Phase 4 Ditch F1735 (Seg.K; Grid Square N19-R17).

Other dispersed pits displaying possible associations with Roman Sub-Phase 2 Enclosure System 3 were more numerous: F1453 (Grid Square L16), F1474 (Grid Square M18), F1917 (Grid Square P15), F2946 (Grid Square Roman Sub-Phase 20), F3128 (Grid Square R19), F3142 (Grid Square P18), F3268 (Grid Square Q16), F3688 (Grid Square S19) and F3803 (Grid Square P14). Some of these may however have been associated with Roman Sub-Phase 2 Enclosure Systems 1 or 2, but could not be securely reconciled on stratigraphic grounds. Of these features, only F3128, F3142 and F3688 were not physically related to this system of ditches and gullies. Pits F3128 and F3688 were both located within the confines of Enclosure 11 however, and contained closely datable pottery assemblages; the former yielded 39 sherds (1568g) of late 1st to early/ mid-2nd century pottery, while the latter contained 21 sherds (495g) of Roman pottery including six late 1st to mid-2nd century examples. Pit F3688 (Grid Square S19) also yielded 1443g of animal bone comprising elements of cattle, large terrestrial mammal and medium terrestrial mammal; the cattle and large terrestrial mammal bones are all skull fragments and

the assemblage displays clear evidence of butchery (Cussans 2012). Despite lacking finds, Pit F3142 (Grid Square P18) was located in the western corner of Enclosure 10. F3142 respected the south-eastern edge of Gully F2069 (Grid Square P18-R21) and was possibly associated with activity within this enclosure. Pit F3803 (Grid Square P14) was truncated on its south-eastern edge by Ditch F2388 (=2491=3595) and lay approximately 2.5m north-west of Ditch F2253 (=2319=3601). As such, it was only tentatively associated with the latter. Finds from F3803 (L3804) include two sherds (36g) of intrusive 3rd to 4th century pottery, potentially from nearby Roman Sub-Phase 4 Gully F2478 (Grid Square P4).

With the exception of Pit F2946 (Grid Square R20), the remaining pits associated with Roman Sub-Phase 2 Enclosure System 3 were cut by ditches or gullies forming parts of this system. F2946 truncated Gully F2944 (Grid Square R19-R20) in the northern quadrant and was tentatively phased based on this relationship. Pit F1453 (Grid Square L16) was cut by Ditch F1451 (=1860), Pit F1474 (Grid Square M18) was cut by Ditch F1470 and Pit F1917 (Grid Square P15) was cut by Gully F1915. The latter was devoid of finds, while F1453 and F1474 both yielded modest quantities of Roman pottery. Pit F1474 also yielded a number of Fe fragments (SF's 11 - 16). Pit F3268 (Grid Square Q16) was wholly truncated by Roman Sub-Phase 2 Ditch F1999 (Grid Square P16-R15) and was recorded in section only. Finds from this pit comprise just 31g of animal bone and its date remains tentative.

To the south-east of Roman Sub-Phase 2 Enclosure Systems 1-3, Pit F3759 (Grid Square W13-W14) was found truncated by Roman Sub-Phase 2 Ditch F3725 (GS V14-W13); this ditch formed part of a possible enclosure boundary running along the north-eastern edge of the northern quadrant. Although comparatively isolated, Pit F3759 possibly constituted an outlier of Roman Sub-Phase 2 Pit Cluster 2 (Table 35), c. 8.2m to the north-west; this remains uncertain however. Finds from this feature comprise just 9g of animal bone. Pit F3759 was tentatively phased based on its relationship with Ditch F3725.

Six pits displayed possible relationships with the Southern Roman Sub-Phase 2 Linear Groups in the south-western quadrant. Of these, five were associated with Group 3 and one (F5162; Grid Square V9), was associated with Group 2. Pit F5162 (Grid Square V9) was truncated by the southern terminus of Roman Sub-Phase 2 Gully F5160 (GS V9) and yielded just a single sherd (8g) of Roman pottery (not closely datable). Of the five pits interspersed with Group 3, only one (F4139; Grid Square K9) was not physically related to any feature within this group. Pit F4139 was found a short distance north-west of Roman Sub-Phase 2 Gully F4090 (Grid Square J8-M10), and contained no finds. However, this pit truncated the fill of Roman Sub-Phase 1 Ditch F4100 (Grid Square J8-K9) and was tentatively assigned to Roman Sub-Phase 2.

Each of the remaining pits associated with Southern Roman Sub-Phase 2 Linear Group 3 displayed primary relationships with constituent features of that group. Pits F4112 (Grid Square K9) and F4214 (Grid Square K9) were both truncated by Roman Sub-Phase 2 Gully F4090 (Grid Square J8-M10). F4112 yielded two sherds (21g) of late 1st to 2nd century pottery, while Pit F4214 was devoid of finds and was phased based on its stratigraphic relationship with the overlying gully. Pit F4020 (Grid Square K8) was cut by the south-western section of Roman Sub-Phase 2 Gully

F3949 (Grid Square K7-M9) and was phased accordingly; this feature contained only 93g of animal bone. Nearby pit F4086 (Grid Square K8) yielded a single sherd (12g) of Roman pottery (not closely datable) but was stratigraphically secure within this sub-phase. This feature cut Roman Sub-Phase 2 Gully F4060 (Grid Square K8) and was cut in turn similarly dated Gully F4038 (Grid Square J8-M9).

Ten Roman Sub-Phase 2 pits displayed no firm associations with contemporary linear features. Of these, Pits F4125 (Grid Square J9 - K9), F4351 (Grid Square V7) and F4498 (Grid Square L12; Table 34) were devoid of finds and were assigned to Roman Sub-Phase 2 based solely on their stratigraphic relationships with overlying Roman Sub-Phase 3 features. Two pits however, F3676 (Grid Square R15-R16 and S15-S16) and F3736 (Grid Square V15), contained tightly datable pottery assemblages; F3676 is discussed in detail below. Roman Sub-Phase 2 Pits F2223 (Grid Square G12-G13), F2535 (Grid Square P13) and F4512 (Grid Square K11) also yielded Roman pottery (in small amounts), though these assemblages are not closely datable; F2223 also contained 676g of animal bone. Modest quantities of animal bone were also recovered from dispersed Roman Sub-Phase 2 Pits F1547 (Grid Square M18) and F2725 (Grid Square Q20).

Possible Quarry Pit F3676

Large ovoid Pit F3676 (Grid Square R15-R16 and S15-S16; Table 34) was located immediately north of Roman Sub-Phase 2 Gully F3614 (Grid Square R15-S15) in the northern quadrant. The north-eastern edge of this pit cut Roman Sub-Phase 2 Spread L3716 (see below), while Ditch F1999 (Grid Square P16-R15) and Gully F3172 (Grid Square Q16-S18; Roman Sub-Phase 2 Enclosure System 3) were respectively located some 7m to the west and 12.5m to the north-east. The possible double ditched Roman Sub-Phase 2 boundary (Table 24) lay approximately 12m to the south-east. F3676 was the deepest Roman Sub-Phase 2 pit encountered and contained nine sequential fills, four of which yielded finds. Fills L3678 and L3684 yielded tightly datable pottery assemblages, collectively comprising 43 late 1st and mid-2nd century sherds (554g); a single undiagnostic Roman sherd (16g) was also recovered from Fill L3686. Together with L3680, these fills also yielded CBM (1588g), animal bone (679g), worked stone (949g), Fe fragments (160g) and shell (2g). The faunal assemblage comprises elements of cattle, sheep/ goat, large terrestrial mammal and medium terrestrial mammal, and includes evidence of canid gnawing (Cussans 2012).

The nine fills encountered within Pit F3676 are worthy of particular attention. Primary fill L3677 comprised a redeposited natural chalk sitting against the eastern side and base of the recorded section. This was wholly sealed by a likely slump of clay with frequent chalky inclusions (L3678), also restricted to the eastern edge. The third fill, L3679, comprised another slump or possible discrete 'dump' of sterile silty sand; this material sat against the western edge of the pit. Above this, Fill L3680 likely comprised the first true 'backfill' material and contained a single large terrestrial mammal bone fragment; this material also appeared to have been deposited from the western edge of the pit. Sequential Fills L3681 and L3682 were similarly located and stratigraphically sealed L3680. The sterile nature of these 'fills' raises the possibility that, like L3679, they too represented the natural slumping of material from the pits' western side. Above L3682, artefact-rich Fill L3684 was present

across the whole of the recorded section. This material likely represented the final true 'fill' material within F3676. During excavation, Fills L3685 and L3686 were recorded as natural accumulations of material on the surface of L3684, the uppermost of which (L3686) contained a large quantity of CBM, possibly representative of surface activity at the time of its deposition.

It appears likely that Pit F3676 remained 'open' for some period of time prior to its infilling, evidenced by possible 'slump' material L3676 and L3679. Primary 'Backfill' L3680 appeared to have been deposited from the western edge of the pit, that closest to Roman Sub-Phase 2 Enclosure Systems 1-3, and was sealed by further episodes of slumping (L3681 and L3682). The final episode of backfilling, represented by L3684, seems to have been followed by further episodes of natural accumulation (L3685 and L3686) incorporating surface debris. Environmental sampling of L3681 yielded common indeterminate cereal grains as well as barley and wheat, including Emmer/ spelt wheat and free-threshing type (Summers this report – *The charred plant macrofossils and charcoal*). Cereal chaff was also common in the sample and sparse examples of wild taxa were noted (*ibid.*). The sample also yielded common charcoal (<2mm and >2mm in size) and archaeological molluscs were abundant (*ibid.*). Finds and environmental evidence from Pit F3676 appear indicative of refuse disposal, likely associated with adjacent Roman Sub-Phase 2 spread L3716 (see below) and nearby Roman Sub-Phase 2 Enclosure Systems 1-3. However, the size and depth of this feature would tend to suggest that its primary function was as a quarry pit, dug into the natural chalk substrate. Any backfilling may therefore represent the opportunistic dumping of material following the cessation of quarrying activity.

The Roman Sub-Phase 2 postholes/ stakeholes

Roman Sub-Phase 2 posthole clusters

The vast majority of the 55 Roman Sub-Phase 2 postholes and stakeholes conformed to three loose clusters within Grid Squares K9-L9, L18-M18 and S19 respectively. The largest cluster comprised 21 individual features (Table 35; Fig. 44), the second numbered 8 in total (Table 36; Fig. 45) and the latter was made up of 6 features, two of which were intercutting (Table 37; Fig. 46). A fourth smaller cluster of three postholes was also identified in the south-western quadrant (Table 40; Fig. 47). The cluster of postholes within Grid Squares L18-M18 (northern quadrant) was loosely aligned north-east to south-west over an area of some 5m (Fig. 44). Most of these were cut into Natural L1002 and were subsequently truncated by Roman Sub-Phase 2 or later features, i.e. Roman Sub-Phase 2 Ditch F1457 (Grid Square M17-M18); one (F1623) was cut into the upper fill of Roman Sub-Phase 2 Ditch F1699 (Grid Square L18). The earliest feature cutting any part of this group was Ditch F1457. The only finds from any of these postholes comprise nine sherds (306g) of late 1st to 4th century pottery and 1884g of animal bone from F1758 (Grid Square M18). The faunal assemblage comprises elements of cattle, horse, sheep/ goat and dog; the dog remains are representative of at least three different individuals and one radius displays cut marks consistent with dismemberment (Curl and Cussans this report – *The animal bone*). Despite the general lack of datable material, the fills of all 21 postholes were identical, which,

coupled with their distinct spatial distribution and generally similar morphology, suggests contemporaneity.

Feature	GS	Size (m)	Plan	Profile	Base
1611	L18	? x 0.20 x 0.16	Circular	U-Shaped	Concave
1615	L18	? x 0.15 x 0.18	Circular	U-Shaped	Concave
1617	L18	0.10 x 0.10 x 0.19	Circular	U-Shaped	Concave
1619	L18	0.10 x 0.10 x 0.17	Circular	U-Shaped	Concave
1621	L18	0.20 x 0.10 x 0.16	Square	U-Shaped	Concave
1623	L18	0.20 x 0.10 x 0.18	Square	U-Shaped	Concave
1625	L18	0.27 x 0.10 x 0.10	Circular	U-Shaped	Concave
1627	L18	0.23 x 0.25 x 0.50	Circular	U-Shaped	Concave
1629	L18	0.10 x 0.12 x 0.10	Circular	Vertical	Unknown
1631	L18	0.15 x 0.15 x 0.22	Circular	U-Shaped	Concave
1633	M18	0.29 x 0.25 x 0.30	Circular	U-Shaped	Flat
1637	M18	0.15 x 0.15 x 0.20	Circular	U-Shaped	Concave
1639	M18	0.35 x 0.30 x 0.65	Square	Near vertical	Concave
1641	M18	0.25 x 0.20 x 0.48	Circular	Near vertical	Pointed
1643	M18	0.70 x 0.25 x 0.40	Square	Steep	Flattish
1645	M18	0.16 x 0.05 x 0.17	Sub-square	Vertical	Flat
1647	M18	0.30 x 0.20 x 0.35	Circular	Steep	Concave
1684	M18	0.45 x 0.23 x 0.40	Circular	Steep	Concave
1758	M18	0.25 x 0.25 x 0.40	Circular	Steep	Concave
1972	M18	0.20 x 0.20 x 0.10	Circular	U-shaped	Concave
1974	M18	0.43 x 0.43 x 0.30	Circular	U-shaped	Concave

Table 35: Roman Sub-Phase 2 posthole cluster (1 of 4)

The postholes of the second Roman Sub-Phase 2 group did not appear to conform to any spatial or functional patterning; for the most part these features appeared randomly distributed around or below Roman Sub-Phase 2 Pit F3688 (Grid Square S19; Fig. 45). A single posthole (F3690) was truncated by Roman Sub-Phase 4 Gully F2952 (Grid Square R20-T18), while two (F3700 and 3712) displayed no physical relationships with any other feature. All eight postholes were cut into Natural L1002 and contained either one or two fills; the uppermost or single fill in each case was identical. It appears therefore that these features formed a contemporary group, stratigraphically predating Roman Sub-Phase 2 Pit F3688. As such, they may not have been related in any way to Enclosure 10, within which they were found. The only finds from any of these features comprise three sherds (60g) of late 1st to 4th century pottery, animal bone (46g) and shell (47g) from the basal fill of F3694 (L3696).

Feature	GS	Size (m)	Plan	Profile	Base
3690	S19	0.28 x 0.24 x 0.20	Sub-circular	Steep	Flattish
3692	S19	0.18 x 0.16 x 0.20	Sub-circular	Steep	Concave
3694	S19	0.24 x 0.13 x 0.40	Sub-circular	Steep	Concave
3697	S19	0.26 x 0.24 x 0.40	Sub-circular	Steep	Concave
3700	S19	0.20 x 0.16 x 0.17	Sub-circular	Moderately steep	Concave
3703	S19	0.26 x 0.24 x 0.20	Sub-circular	Steep	Flat
3706	S19	0.18 x 0.18 x 0.18	Sub-circular	Steep	Concave
3712	S19	0.18 x 0.16 x 0.10	Sub-circular	Moderately steep	Concave

Table 36: Roman Sub-Phase 2 posthole cluster (2 of 4)

A third Roman Sub-Phase 2 posthole cluster comprising six individual features (Table 37) was found largely beneath Roman Sub-Phase 2 Gully F4090 (Segments F and G; Grid Square J8-M10; Southern Roman Sub-Phase 2 Linear Group 3) and Roman Sub-Phase 3 Gully F4069 (Segment E; Grid Square J9-L9) (Fig. 46). Two of the six features (F4285 and F4287) were intercutting and the cluster as a whole did not appear to conform to any spatial or functional patterning; possibly resulting from the small area investigated by the above segments. The features themselves differed little in overall size and morphology and five of the six, including possible

outlier F4279, contained very similar fills. These features were assigned to Roman Sub-Phase 2 on stratigraphic grounds.

Feature	GS	Size (m)	Plan	Profile	Base
4264	L9	0.12+ x 0.20 x 0.15	Oval	Very steep	Concave
4279	K9	0.16 x 0.16 x 0.39	Circular	Very steep	Concave
4285	L9	0.25 x 0.25 x 0.27	Oval	Very steep	Concave
4287	L9	0.30 x 0.30 x 0.29	Oval	Very steep	Concave
4289	L9	0.17 x 0.17 x 0.10	Oval	Very steep	Flattish
4291	L9	0.14 x 0.14 x 0.08	Oval	Very steep	Flattish

Table 37: Roman Sub-Phase 2 posthole cluster (3 of 4)

Postholes F4266, F4276 and F4281 (Table 38) were loosely aligned east-north-east to west-south-west in Grid Square K9 (south-western quadrant; Fig. 47). These postholes were all truncated by later features and were similar in size, plan and profile; the base of F4266 was not reached. The fills of these features varied however and F4266 (L4268) yielded the only finds (22g of burnt flint). All three postholes were cut into Natural F1002 and their phasing was based solely on their relationships with overlying features.

Feature	GS	Size (m)	Plan	Profile	Base
4266	K9	0.98+ x 0.34 x 0.98+	Oval	Very steep	Unknown
4276	K9	0.98+ x 0.23 x 0.65	Oval	Very steep	Concave
4281	K9	0.98+ x 0.20 x 0.23	Sub-oval	Very steep	Concave

Table 38: Roman Sub-Phase 2 posthole cluster (4 of 4)

Roman Sub-Phase 2 posthole/ stakehole pairs

Four possible pairs of Roman Sub-Phase 2 postholes/ stakeholes were identified. The first of these, comprising Stakeholes F4258 and F4260 (Grid Square K9; Table 39), was found a short distance to the west of the above posthole 'alignment' formed by F4266, F4276 and F4281 (south-western quadrant). These features were practically identical in size, plan, profile, and the nature of their fills, though neither yielded finds and their function remains uncertain. It is possible that this pair related in some way to the abovementioned posthole alignment.

Feature	GS	Size (m)	Plan	Profile	Base
4258	K9	0.12 x 0.08 x 0.08	Oval	Very steep	Concave
4260	K9	0.14 x 0.14 x 0.07	Oval	Very steep	Concave

Table 39: Roman Sub-Phase 2 posthole/ stakehole pair (1 of 4)

The intercutting features of the second Roman Sub-Phase 2 posthole/ stakehole pair, F2769 and F2771 (Grid Square P20; Table 40) were similar in size and morphology. The single fills of these features (L2770 and L2772) were also analogous. F2770 was the earlier of the two and was cut into Natural L1002. F2772 was cut by Roman Sub-Phase 2 Gully F2705 (Grid Square N20-P20). The postholes were located within the confines of Enclosure 8 but neither yielded finds.

Feature	GS	Size (m)	Plan	Profile	Base
2769	P20	0.10 x 0.22 x 0.17	Sub-oval	Steep	Concave
2771	P20	0.38 x 0.34 x 0.87	Sub-oval	Near-vertical	Concave

Table 40: Roman Sub-Phase 2 posthole/ stakehole pair (2 of 4)

The third (possible) pair of Roman Sub-Phase 2 postholes/ stakeholes comprised F3281 (Grid Square S18) and F3283 (Grid Square R18; northern quadrant; Table 41). This pair was only visible in section, having been truncated by Roman Sub-

Phase 2 Gully F3152 (Grid Square R18 - S18). Neither posthole yielded finds; both were dated solely on the basis of their stratigraphic relationship with the overlying gully. The truncation of these features by F3152 placed them either within or before Roman Sub-Phase 2 Enclosure System 3, though the lack of associated finds prevents interpretation of their function(s).

Feature	GS	Size (m)	Plan	Profile	Base
3281	S18	0.34 x 0.25 x 0.14	Oval	Moderate	Flat
3283	R18	0.26 x 0.24 x 0.24	Sub-square	Steep	Concave

Table 41: Roman Sub-Phase 2 posthole/ stakehole pair (3 of 4)

The final Roman Sub-Phase 2 Posthole pair (F1538 and F1651; Table 42) were similarly truncated by Roman Sub-Phase 3 Ditch F1460. These features were found adjacent to one another in Grid Square M18 (northern quadrant), c. 3m south-west of Ditch F1470 (Grid Square M18-Q17; Roman Sub-Phase 2 Enclosure System 3). These postholes did not contain finds and were (tentatively) phased based on their stratigraphic relationships with F1460.

Feature	GS	Size (m)	Plan	Profile	Base
1538	M18	? x 0.20 x 0.49	Circular	Near-vertical	Unknown
1651	M18	0.20 x 0.25 x 0.13	Circular	U-Shaped	Concave

Table 42: Roman Sub-Phase 2 posthole/ stakehole pair (4 of 4)

Dispersed Roman Sub-Phase 2 postholes

The remaining Roman Sub-Phase 2 postholes (Table 43) were more generally distributed across the site. Four of these, F1353 (Grid Square L3), F1651 (Grid Square M18), F1835 (Grid Square N18) and F3805 (Grid Square Q14-Q15) either cut or were cut by ditches associated with the Roman Sub-Phase 2 enclosure systems. Posthole F1353 was cut Ditch 1297 (=1341; Grid Square K14-L13; Roman Sub-Phase 2 Enclosure System 1) and contained two sherds (21g) of Roman pottery (not closely datable). Postholes F1835 and F3805 were cut by ditches belonging to Roman Sub-Phase 2 Enclosure System 3; neither yielded finds.

Feature	GS	Size (m)	Plan	Profile	Base
1353	L3	0.22 x 0.18 x 0.30	Circular	Steep	Concave
1835	N18	0.25 x 0.25 x 0.44	Square	Vertical	Flattish
2393	N14-P14	0.40 x 0.36 x 0.09	Sub-Circular	Gentle	Concave
2419	G10	0.30 x 0.22 x 0.19	Oval	Steep	Concave
2755	Q20	0.35 x 0.35 x 0.49	Sub-circular	Steep	Concave
2942	Q18	0.27 x 0.27 x 0.11	Oval	Steep	Flat
3805	Q14-Q15	0.35 x 0.30 x 0.30	Oval	Vertical	Flat
4110	J8	0.30 x 0.25 x 0.13	Circular	Gradual	Concave

Table 43: Dispersed Roman 2 postholes

One of the dispersed Roman Sub-Phase 2 postholes (F4110; Grid Square J8) was found immediately to the north of Roman Sub-Phase 2 Gullies F4090 (Grid Square J8-M10) and F4092 (GS J8-K9), Southern Roman Sub-Phase 2 Linear Group 3. However, F4110 was not physically related to any one feature within this group and its date remains tentative. Finds from this feature comprise just one sherd (5g) of Roman pottery (not closely datable). Posthole F2942 (Grid Square Q18) was also only tentatively assigned to Roman Sub-Phase 2. This feature lay immediately to the south of Roman Sub-Phase 2 Ditches F2936 and F2938 (=3136; Grid Square Q18), constituent features of Enclosure 5, and may have therefore been

contemporary to Roman Sub-Phase 2 Enclosure System 1. This feature yielded no finds.

The westernmost of the dispersed Roman Sub-Phase 2 postholes, F2419 (Grid Square G10) cut the fill of unphased Gully F2386 (Grid Square G10). Despite being isolated from other contemporary features, F2419 yielded five sherds (16g) of 2nd century pottery. Posthole F2393 (Grid Square N14-P14) yielded no such datable pottery assemblage, but could be reasonably assigned to Roman Sub-Phase 2 on stratigraphic grounds. This feature was sealed by Roman Sub-Phase 2 Spread L2321 (Grid Square N13-N14 & P13-P14). Similarly, Posthole F2755 (Grid Square Q20) in the northern quadrant was devoid of datable material but was close to Roman Sub-Phase 2 Grave Cut F2731 (see below).

The Roman Sub-Phase 2 funerary evidence

A single sub-oval grave cut (F2731; Grid Square Q20) was present in the northern quadrant (Fig. 48). This feature contained the extremely poorly preserved remains of a single human infant (SK8; Plate 2). The skeleton was in a crouched position, oriented east to west and facing west. The clay fill of the grave (L2732) was extremely compacted and hindered the retrieval of skeletal material. No grave goods were present. Grave Cut F2731 truncated Roman Sub-Phase 2 Gully F2753 (Grid Square P21-Q20; Enclosure System 3) and was tentatively assigned to this sub-Phase based on this relationship.

Roman Sub-Phase 2 layers and spreads

Fourteen Roman Sub-Phase 2 layers and spreads were encountered (Table 44). Of these, five (L3208, L3624, L4315, L4524 and L4596) were devoid of finds. Spread L3399 (Grid Square c. P11) contained relatively few finds; this context comprised a mid-grey silty sand measuring 4.00 x 3.50 x 0.37m and was truncated by Roman Sub-Phase 3 Ditch F3385 (Grid Square N10 - P12). The 15 sherds (115g) of Roman pottery recovered from this spread could not be closely dated, though its stratigraphic position favoured an Roman Sub-Phase 2 date. Spread L3399 was located a short distance to the north-west of Roman Sub-Phase 2 ditches and gullies in the south-western quadrant and may have been associated with contemporary activity in this area.

Layer L3365 (Grid Square Q10-Q11 & R10) was found a short distance to the south-east of Spread L3399. This feature was truncated by gullies of the second southern Roman Sub-Phase 2 ditch/ gully group (see above). This layer yielded one sherd (21g) of Roman pottery (not closely datable), 241g of animal bone and a one piece (5g) of residual struck flint. The faunal assemblage comprises elements of cattle (skull fragments) and large terrestrial mammal (Cussans 2012). Owing to the lack of diagnostic pottery, Layer L3365 was phased on stratigraphic grounds.

Context	Type	GS	Pottery	CBM	Animal Bone	Other Finds
2156	Layer	G12-G13	34 sherds (950g)	-	4487g	Daub (15g)
2157	Layer	F11-G15	3 sherds (47g)	-	643g	-
2321	Layer	N13-N14 & P13-P14	83 sherds (3448g)	153g	2800g	Shell (29g)
3208	Spread	Q16	-	-	-	-
3365	Layer	Q10-Q11 & R10	1 sherd (21g)	-	241g	Struck Flint (5g)
3399	Spread	c. P11	15 sherds (115g)	-	1	-
3609 (including 3611)	Layer	R15	246 sherds (6974g)	17,151g	449g	Shell (3149g), worked bone (4g), Fe (448g), Pb (16g), Slag (1175g), worked stone (395g), burnt stone (449g), mortar (154g)
3624	Spread	Q15	-	-	-	-
3651	Layer	S19-S20 & T19	36 sherds (568g)	-	371g	Burnt Stone (295g)
3716	Spread	S15-S16	46 (427g)	88g	351g	Shell (35g), Fe (123g), burnt flint (221g)
3718	Spread	U15 & V14-V15	-	263g	157g	Struck Flint (4g)
4315	Spread	T7-U7	-	-	-	-
4524	Layer	Not planned	-	-	-	-
4596	Layer	S14-S15 & T15	-	-	-	-

Table 44: Roman Sub-Phase 2 layers and spreads

Layer L3609 (Grid Square R15) and Spread L3716 (Grid Square S15-S16) were located c. 3.5m apart in the northern quadrant of the site. Roman Sub-Phase 2 Spreads L3208 and L3624 were located a short distance to the north-east and Layer L4596 was present immediately to the south. This obvious grouping of contexts likely represented a single episode of activity in this part of the site, probably also incorporating large Roman Sub-Phase 2 Pit F3676 (Grid Square R15-R16 & S15-S16). Both L3609 and L3716 yielded quantities of Roman pottery, 246 sherds (6974g) and 46 sherds (427g) respectively. Collectively, the diagnostic pottery from these contexts was mid-1st to mid-3rd century in date. In addition, Layer L3609 yielded large quantities of CBM (17,151g) and animal bone (4497g). The faunal assemblage includes elements of cattle, horse, sheep/ goat and pig, including a possible wild boar tibia (Cussans 2012); 23 large terrestrial mammal fragments are also present (*ibid.*). This Layer also incorporated L3611, an oyster shell-rich deposit which included some 2449g of shell (Cussans this report – *The shell*). Other finds from L3609/ L3611 include slag (1175g), Fe fragments (448g), Pb fragments (16g), worked stone (395g), burnt stone (449g), mortar (154g), and a single bone hairpin of Crummy Type 1 (SF127; see Cooper this report – *The small finds*). This pin type complements the prescribed date range for Roman Sub-Phase 2, being predominantly in use from the Flavian dynasty to the late 2nd century AD (*ibid.*). Also of note is part of an iron bridle from L3609 (Seg.C), comprising two rings linked by a straight element and four other ring fragments (*ibid.*). Environmental sampling of L3611 yielded notable archaeological mollusca (see below). Additional finds from nearby Spread L3716 comprise animal bone (351g), CBM (88g), Fe fragments (123g), shell (35g) and burnt flint (221g).

Roman Sub-Phase 2 Layer L2321 (Grid Square N13-N14 and P13-P14) was also located in the northern quadrant of the site. This layer was located immediately to the north of Roman Sub-Phase 2 Ditch F2253 (=2319=3601; Grid Square P13-Q15) and sealed Roman Sub-Phase 2 Gully F2326 (Grid Square P13-14); L2321 was cut by Roman Sub-Phase 3 Gully F2322 (=3236=3603; Grid Square P14-S17). This layer contained a large quantity of diagnostic pottery, and was principally assigned to

Roman Sub-Phase 2 based on the dating of this material. The recorded interaction of this layer with F2322 (=3236=3603) and F2326 produced a 'circular' stratigraphic sequence that was reassessed during post-excavation analysis. The relatively large animal bone assemblage from this layer (2800g) comprises elements of cattle, horse, sheep/ goat, pig and large terrestrial mammal, and includes evidence of canid gnawing and pathological traits (Cussans 2012). Cattle remains from this context include an individual aged 3-4 years+ at time of death (based on tooth eruption and wear data; Curl and Cussans this report – *The animal bone*), possibly alluding to the presence of breeding stock or traction animals at the site.

Roman Sub-Phase 2 Spread L3718 (Grid Square U15 and V14-V15) was found approximately 21.7m east-south-east of Spread L3716, within the confines of a possible large rectilinear Roman Sub-Phase 2 enclosure (see above). Boundary Ditch F3721 (Grid Square V16-W14) was located immediately adjacent to the north-eastern edge of L3718. Although lacking datable material, this Spread was truncated by Roman Sub-Phase 2 Pit F3736 (Grid Square V15) which contained tightly datable 2nd century pottery. Finds yielded by L3718 comprise animal bone (157g), CBM (263g) and 4g of residual struck flint.

Layer L3651 (Grid Square S19-S20 & T19) was truncated by constituent features of Roman Sub-Phase 2 Enclosure System 3 in the far north-east of the northern quadrant. This context was also truncated by Roman Sub-Phase 2 Pit F3688 (Grid Square S19; see above). L3651 yielded 36 sherds (568g) of mid to late 2nd century pottery in addition to animal bone (371g) and burnt stone (295g). The faunal assemblage comprises elements of cattle, pig and large terrestrial mammal (Cussans 2012).

Layers L2156 (Grid Square G12-G13) and L2157 (Grid Square F11-G15) were the only such Roman Sub-Phase 2 contexts found within the western site quadrant. L2156 constituted the primary fill of a large (unnumbered) natural depression, and was sealed to the west by more extensive Layer L2157. No contemporary features were present in the immediate vicinity. L2156 yielded the greatest finds assemblage, comprising 34 sherds (950g) of pottery, predominantly late 1st to early/ mid-2nd century, animal bone (4487g) and daub (15g). The faunal assemblage comprises elements of cattle, horse, sheep/ goat, pig, red deer and large terrestrial mammal; a red deer metatarsal and one large terrestrial mammal fragment were partially worked and the assemblage included evidence of canid gnawing (Cussans 2012). The pottery assemblage from Layer L2157 was smaller, comprising just three sherds (47g) of Roman and residual mid to late Iron Age material. The only other finds from this layer are 643g of animal bone. A 40ltr environmental sample of Layer L2156 yielded barley and wheat species as well as cereal chaff. Identified wild taxa include sedge, grass, and onion (cf. *Allium* sp. L.) species, and charcoal (>2mm) and heather charcoal was common within the sample; archaeological molluscs were abundant and are outlined below.

Molluscan evidence from Layers L2156 and L3611

Identified taxa from Roman Sub-Phase 2 Layer L2165 indicate moist/ marshy grassland in this area of the western quadrant, with aquatic/ semi-aquatic species constituting 10.37% of the assemblage (Summers this report – *The terrestrial*

molluscs). Such conditions may account for the dearth of archaeological evidence in this part of the site. In contrast, mollusc taxa identified from oyster-rich Layer L3611, within the northern quadrant, are indicative of dry to slightly damp grassland (*ibid.*). Overall, the Roman Sub-Phase 2 molluscan record is suggestive of seasonal waterlogging in the west of the site with areas of disturbance and short vegetation/bare earth present to the north (*ibid.*). The latter may indicate intensive livestock grazing within the area occupied by Roman Sub-Phase 2 Enclosures 4-12.

Tree Bole F2719

The only natural feature assigned to Roman Sub-Phase 2 was Tree Bole F2719 (Grid Square Q19; northern quadrant). This shallow irregular feature was cut by Roman Sub-Phase 4 Pit F2676 (Grid Square Q19) and yielded just one sherd (4g) of Roman pottery. The phasing of this feature remains tentative.

Focuses of Roman Sub-Phase 2 activity

Peaks (in excess of 2001g) in the plotted weights of CBM from Roman Sub-Phase 2 are evident in Grid Squares L15 and R15 (Fig. 49), both in the northern site quadrant. One other grid square (S15) in this area of the site yielded over 1001g of CBM, whilst lesser quantities were also recovered from the immediate vicinity. CBM was scarce in the southern and western quadrants. The CBM from Grid Square R15 chiefly derives from Layer L3609 which was recorded as having accumulated within a natural hollow. It was also speculated that this material represented some manner of occupation deposit, indicative of a structure, further evidence of which had been lost. However, the very large quantity of material (including pottery and other finds; below) recovered from this layer is far more likely to represent midden material or similar refuse. Domestic and other buildings are likely to have cleaned out on a regular basis. Such an interpretation would better fit descriptions of the artefact *refuse-cycle* as illustrated by Needham and Spence (1997), particularly regarding the use, reuse and deposition of pottery (*ibid.* 78, fig. 2). The comparatively large weight of CBM from Layer L3609 does however suggest the onetime presence of buildings/structures within the immediate or local landscape from which this material originated.

The features within and around Grid Square L15 were linear and non-structural in nature, chiefly comprising boundary features associated with Enclosures 4 and 6. The large weight of CBM recovered from this area (Fig. 49) does not therefore appear to have accumulated as a result of *in situ* demolition or structural collapse. It is once again likely however, that the CBM originated from structures within the immediate area.

Plotted weights of pottery from Roman Sub-Phase 2 (Fig. 50) show a much more generalised distribution of material, mostly confined to the northern quadrant. Comparatively high weights of pottery (in excess of 2001g) are evident from four grid squares in the northern quadrant, two of which contained 'rich' spreads of material. Layer L3609 contained the most significant group (250 sherds; 6703g) which, unlike groups from other areas of the site, did not contain recognisably residual material (Peachey this report – *The prehistoric and Roman pottery*). Increased weights of pottery, between 1001g and 2000g, are also evident in Grid Squares K9 to L9 in the

south-west quadrant, whilst the south-east and western quadrants display lesser accumulations. Overall, Roman Sub-Phase 2 yielded the largest pottery groups of any Roman sub-phase, representing a significant increase in activity at this time.

The Nature of Roman Sub-Phase 2 Activity

Roman Sub-Phase 2 witnessed a massive intensification of activity in comparison to Roman Sub-Phase 1 and forerunning Period I, evidenced by both a proliferation of features and a peak in pottery consumption at the site (Peachey this report – *The prehistoric and Roman pottery*). Evidence of this intensification was most obvious in the northern quadrant of the site and, to a lesser extent, in the south-eastern and south-western quadrants. The western quadrant contained only a small number of Roman Sub-Phase 2 features/ contexts possibly a result of moist/ marshy conditions in this area (Summers this report – *The terrestrial molluscs*). Like Period I and Roman Sub-Phase 1, activity in this sub-phase appears to have been chiefly agricultural in nature, centred upon a succession of ditched enclosure systems within the northern quadrant. A discrete molluscan assemblage from this area hints at slightly damp grassland conditions, likely subject to grazing by livestock.

All major farmyard species are represented in Roman Sub-Phase 2, with cattle and ovicaprids dominating the assemblage (Curl and Cussans this report – *The animal bone*). Neonatal remains are present in both instances and, with occurrences of mature individuals (*ibid.*), might indicate on-site breeding at this time. The sparse pig bone from this sub-phase includes wild boar-sized fragments and the butchering and consumption of red and roe deer is also suggested (*ibid.*). Recovered equid remains include pathological traits suggestive of traction animals while the skinning of both equids and canids is also evidenced (*ibid.*).

Numerous Roman Sub-Phase 2 pits and postholes were also identified. Most of the pits were linked to one or more of the ditched enclosure systems. None of the identified Roman Sub-Phase 2 posthole clusters conformed to any spatial or functional/ structural patterning. One interesting feature was Grave F2731 which contained the poorly preserved remains of a single human infant (SK8; Curl this report – *The human bone*). The disposal of Romano-British infants in non-funerary landscapes is, however, not unusual (*ibid.*).

4.2.3 Roman Sub-Phase 3 (late 2nd to early 3rd century AD)

Summary

Roman Sub-Phase 3 at the former Smoke House Inn spanned the late 2nd/ early 3rd centuries AD. Like forerunning Roman Sub-Phase 2, this sub-phase was characterised by successive systems of rectilinear enclosures (Fig. 51), numbering at least six in total and associated with a predominantly agricultural economic regime. The constituent boundary features had also been greatly modified and/ or superseded over a short space of time. Unlike its predecessor however, Roman Sub-Phase 3 also witnessed an enhanced level of landscape ‘organisation’ in the south-eastern and south-western quadrants. The later (Roman Sub-Phase 5) ‘ladder’ system of enclosures in this part of the site (see below) conformed to longstanding boundary alignments first established during Roman Sub-Phase 3.

This implies significant continuity of land use spanning at least a century. Once again, Roman Sub-Phase 3 activity was undoubtedly associated with previously identified Romano-British activity in the area. No structures were firmly identified within this sub-phase.

The Roman Sub-Phase 3 ditches and gullies

The ditches and gullies of Roman Sub-Phase 3 formed an extensive complex of rectilinear enclosures. The alignments of these features broadly mirrored those of the earlier Roman sub-phases and forerunning prehistoric, being chiefly north-east to south-west/ north-west to south-east. The more 'radial' layout of Roman Sub-Phase 2 ditches and gullies towards the south-western edge of the northern quadrant (see above) was also evident in this sub-phase. Ditches and gullies in the northern quadrant again represented three stratigraphically distinct enclosure systems (Roman Sub-Phase 3 Enclosure Systems 1-3), and displayed clear similarities in form and alignment to those in the south-eastern and south-western quadrants. The Roman Sub-Phase 3 enclosures in these areas survived more completely than those of forerunning Roman Sub-Phase 2 and appeared to signify a clear increase in the level of activity to the south of site MNL 608. However, as previously stated, a large part of the southern quadrant was not excavated due to restrictions imposed by a tree preservation order. The small number of fills associated with Roman Sub-Phase 3 ditches and gullies once again alluded to the short-lived nature of these features, suggested further by the recorded level of intercutting – a number of ditches and gullies were recut and/ or superseded at least twice during this sub-phase of activity.

Roman Sub-Phase 3 Enclosure System 1

Like the Roman Sub-Phase 2 enclosure systems, Roman Sub-Phase 3 Enclosure System 1 (Table 45; Figs. 52-58) was largely rectilinear in form. This system was dominated by a large square enclosure (Enclosure 15) in the northern quadrant, comprising Ditches F1516 (=1746=1850; Grid Square K17-P14) and F1707 (Grid Square N19-R16), and Gullies F1466 (=1472=1862=2059; Grid Square L17-N18) and F2322 (=3236=3603; Grid Square P14-S17) (Fig. 52). The approximate internal area of Enclosure 15 was 1100m², comparable to that associated with Roman Sub-Phase 2 Enclosure System 1 (see above). A c. 4.5m-wide entrance to this enclosure was observed in the southern corner between the opposing termini of F1516 (=1746=1850) and F2322 (=3236=3603) (Grid Square P14). North-east to south-west aligned Gully F1466 (=1472=1862=2059), appeared to form the north-western boundary of this large enclosure or, possibly, a simple division of space separating the bulk of Enclosure 15 from a smaller, north-western area (Enclosure 15a; Fig. 52). The south-western and north-eastern limits of Enclosure 15a were formed by continuations of F1516 (=1746=1850) and F1707 respectively. Gaps between these substantial linear features and the opposing termini of Gully F1466 (=1472=1862=2059) seemed to provide access to Enclosure 15a from Enclosure 15; these broad 'entrances' measured 7m and 11m-wide respectively. Heavily truncated Ditch F2014 (Grid Square M16) ran c. 2.8m north-eastwards from F1516 (=1746=1850) and may tentatively have formed a remnant of internal 'partitioning' within Enclosure 15; this feature was devoid of finds. Ditch F1812 (Grid Square N17) was also present within the confines of the enclosure, though was too truncated/ isolated to be meaningfully interpreted.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1372	Ditch	K15-L15	Curvilinear	12.18 x 1.20 x 0.43	Linear	U-shaped	Concave
1381	Ditch	K15-M15	WNW-ESE	19.40 x 1.70 x 0.49	Linear	U-Shaped	Concave
1466=1472=1862 =2059	Gully	L17-N18	NE-SW	17.50 x 1.50 x 0.25	Linear	Gentle	Concave
1516=1746=1850	Ditch	K17-P14	NW-SE	48.00 x 1.66 x 0.40	Linear	V-Shaped	Concave
1707	Ditch	N19-R16	NW-SE	43.84 x 1.44 x 0.50	Linear	Moderate	Concave
2322=3236=3603	Gully	P14-S17	NE-SW	10.65 x 1.34 x 0.21	Linear	Moderate	Concave
2913	Ditch	R17-R19	N-S	22.26 x 0.79 x 0.42	Linear	Moderate	Flat
3174	Gully	R18-T16	NW-SE	33.50 x 0.87 x 0.29	Linear	Moderate	Rounded
3238	Gully	R18-S17	NW-SE & N-S	17.99 x 1.25 x 0.47	Linear	Gentle	Concave
3301	Gully	R16-S17	NE-SW	7.60 x 0.70 x 0.22	Linear	Moderate	Rounded

Table 45: Principal features forming Roman Sub-Phase 3 Enclosure System 1

The principal features forming Enclosures 15 and 15a yielded an impressive artefactual assemblage. Four of the five boundary features contained Roman pottery, totalling 231 sherds (5386g), mostly from Fill L2323 (F2322=3236=3603; Grid Square P14-S17). Segments A and B through this feature yielded late 3rd to 4th century pottery, while Seg.C yielded only late 1st to early/ mid-2nd century wares. This residual material may have come from Roman Sub-Phase 2 Ditch F2253 (=2319=3601; Grid Square P13-Q15), a possible earlier demarcation of the same boundary, while the later material possibly originated from Roman Sub-Phase 6 Ditch F2255 (=3601; Grid Square L11-U17), a short distance to the south-east. These boundary features also yielded a notable weight of CBM (totalling 6927g), most of which (5864g) was also recovered from L2323. Three of the five features produced sizable faunal assemblages totalling 6587g; identified species comprise cattle, horse and sheep/ goat. Other finds from these features include Fe fragments, small quantities of shell and 5g of blue-green Roman bottle glass from Fill L1708 (Seg.L) of Ditch F1707 (see Cooper this report – *The small finds*), similar to (possibly) residual examples from Roman Sub-Phase 4 and 5 features.

Ditch F1381 (Grid Square K15-M15) was recorded running roughly parallel to Boundary Ditch F1516 (=1746=1850), c. 8m to the south-west, and was aligned with the short north-westward return of F2322 (=3236=3603; Grid Square P14-S17) at its south-western end. This arrangement of features may have represented a broad track or driveway parallel to the south-western edge of Enclosure 15. A truncated length of contemporary gully (F1518; Grid Square K15) was also visible running south-westwards, c. 1.3m from the north-western terminus of F1381, though the relationship between these features was tentative. The only finds from either comprise five sherds (32g) of Roman pottery (not closely datable) and small amounts of CBM and animal bone from F1381 (L3181 and L1410).

Curvilinear Ditch F1372 (Grid Square K15-L15) was Cut by the north-western terminus of F1381 (Fig. 52). This feature was broadly aligned east to west and was also truncated by the south-western portion of later Roman Sub-Phase 3 Ditch F1368 (Grid Square K15-L16; Roman Sub-Phase 3 Enclosure System 2). Segment F through this feature yielded a single sherd (5g) of mid to late Iron Age pottery, though the source of this residual material remains uncertain. The closest Period I feature, Ditch F1304 (=1447; Grid Square K14), was located c. 9m to the south-west and was devoid of pottery. The relationship of F1372 to nearby contemporary features remains unclear.

To the north-east of Boundary Ditch F1707 (Grid Square N19-R16), a rather indistinct arrangement of three intercutting linear features was recorded (Fig. 52).

Although thought to be stratigraphically associated with Roman Sub-Phase 3 Enclosure System 1, the alignment of one of these, Gully F2913 (Grid Square R17-R19), was in stark contrast to its neighbours. Aligned north to south, this feature lay at c. 45° to the north-eastern edge of Enclosures 15 and 15a. Gully F2913 was marginally later than Ditch F1707 and the latter may not have been 'open' when the former was established. Conversely, no similarly aligned features were present within the immediate vicinity to which F2913 might more convincingly have been related. Finds from this gully include 14 sherds (595g) of Roman pottery (not closely datable), while environmental sampling of Fill L2914 (Seg.G) recovered remains of wild strawberry (*Fragaria cf. vesca*) – a possible gathered foodstuff (Summers this report – *The charred plant macrofossils and charcoal*).

The midpoint of Gully F2913 cut through the fill of Gully F3174 (Grid Square R18-T16). This feature was intercut with parallel Gully F3238 (Grid Square R18-S17), though their exact relationship was obscured by a modern service trench and associated area of disturbance. Together, these features formed a Y-shaped arrangement, largely parallel to nearby Boundary Ditch F1707 (Grid Square N19-R16; Enclosure 15). The northern 'return' of Gully F3174 may tentatively have formed a loosely enclosed area with F1707, F2322 (=3236=3603; Grid Square P14-S17) and F3301 (Grid Square R16-S17), measuring some 170m² (Enclosure 16). F3174 was devoid of finds, though parallel Gully F3238 yielded 19 sherds of Roman pottery (not closely datable), CBM (1176g), animal bone (156g) and Fe fragments (108g).

Ditch F4653 (Grid Square S14-S15) was found c. 8m south-west of Gully F3174 and c. 14m south-east of Gully F2322 (=3236=3603; Grid Square P14-S17) (Fig. 52). F4653 truncated Roman Sub-Phase 2 Layer L4596 (Grid Square S14-S15 and T15) and was cut in turn by Roman Sub-Phase 4 Ditch F2503 (=3674; Grid Square R14-T15). Its comparative isolation and north-north-east to south-south-west alignment was at odds to other Roman Sub-Phase 3 ditches and gullies in the northern quadrant. Finds from F4653 (L4654) comprise two sherds (41g) of Roman pottery (not closely datable) and 19g of animal bone. Consequently, the tentative phasing of this functionally ambiguous ditch was based solely on its stratigraphic relationships.

Intercutting Gullies F2055 and F2057 (Grid Square N14) were found a short distance north-west of Gully F2322 (=3236=3603; Grid Square P14) and south-west of Ditch F1516 (=1746=1850; GS P14; see above) (Fig. 52). Ditches F1423 (Grid Square J16-L16), F1536 (=1816; Grid Square L18-P15) and F1819 (=1982; Grid Square N17-P15) (all part of Roman Sub-Phase 3 Enclosure System 3; Table 47) were also nearby. Gully F2057 cut Roman Sub-Phase 2 Spread L2321 (Grid Square N13-N14 and P13-P14) and yielded six sherds (494g) of intrusive late 3rd to 4th century pottery. This material likely derived from Roman Sub-Phase 6 Gully F1821, c. 2m to the north-east; Slot A through this later feature yielded seven similarly dated sherds. Gully F2055 truncated the fill of F2057 and was sealed by Period III Subsoil F1090. Fill L2056 of this gully yielded seven sherds (123g) of Roman pottery, most of which is early to late 2nd/early 3rd century in date. Other finds from these features comprise modest quantities of CBM and animal bone. The respective alignments of these gullies did not match those of other contemporary features in the vicinity and it is unclear which of the three northern Roman Sub-Phase 3 enclosure systems they may have been associated with.

Roman Sub-Phase 3 Enclosure System 2

Roman Sub-Phase 3 Enclosure System 2 appeared somewhat disarticulated, largely as a result of subsequent recutting and/ or truncation by later features. The principal features of this system (Figs. 59-64) are presented in Table 46. Three of these, Ditches F1464 (=2008; Grid Square M18-P17), F1534 (Grid Square L18-M17) and Gully F2085 (Grid Square N16-P15), shared a north-west to south-east alignment and were tentatively interpreted as representing part of a c. 4-5m wide trackway. This 'trackway' ran for approximately 40m across the northern site quadrant and disappeared beneath the north-western baulk. F1534 was subsequently recut by Roman Sub-Phase 3 Gully F1583 (Grid Square L18-M18), also part of this enclosure system, though the later feature yielded no finds. F1583 was sealed by Period III Subsoil L1090.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1368	Ditch	K15-L16	NE-SW	11.11 x 0.70 x 0.40	Linear	Steep	Rounded
1464=2088	Ditch	M18-P17	NW-SE	22.70 x 0.65 x 0.50	Linear	U-Shaped	Concave
1534	Ditch	L18-M17	NW-SE	9.00 x 0.98 x 0.40	Linear	Moderate	Concave
1583	Gully	L18-M18	NW-SE	6.83 x 0.36 x 0.25	Linear	U-shaped	Concave
1687=1750	Ditch	M14-N16	NNW-SSE	17.65 x 1.20 x 0.50	Linear	Steep	Concave
1763	Ditch	N17-P18	NE-SW	16.20 x 1.30+ x 0.41	Linear	U-Shaped	Concave
1923=3003	Ditch	Q17-R19	NE-SW	14.00+ x 0.86 x 0.58	Linear	Steep	Rounded
2009	Ditch	M16	Curvilinear	3.77 x 1.00 x 0.45	Curvilinear	Steep	Concave
2085	Gully	N16-P15	NW-SE	14.35 x 0.63 x 0.33	Linear	V-Shaped	Concave
2483	Ditch	M13-N13	NW-SE	7.25 x 1.24 x 0.48	Linear	Moderate	Rounded
3158	Gully	Q17-Q18	NE-SW	9.83 x 0.20+ x 0.32	Linear	Moderate	Flat

Table 46: Principal features forming Roman Sub-Phase 3 Enclosure System 2

South-west of the possible trackway, Ditch F1687 (=1750; Grid Square M14-N16) appeared to form the western corner of an extensive rectilinear enclosure with Ditch F2483 (Grid Square M13-N13). If 'open', it is possible that Gully F2322 (=3236=3603; Roman Sub-Phase 3 Enclosure System 1) partially formed the south-eastern extent of this enclosure, or perhaps some manner of internal partitioning. The area loosely defined by these features (Enclosure 17; Fig. 59), including the south-western line of the above trackway, measured some 640m². Small finds from F1687 (=1750) comprise just five sherds (97g) of pottery and 116g of animal bone; F2483 was devoid of finds.

The north-eastern edge of the above 'trackway', Ditch F1464 (=2088), formed another possible enclosure (Enclosure 18) with Ditches F1763 (Grid Square N17-P18) and F1923 (=3003; Grid Square Q17-R19); apparently a recut of Roman Sub-Phase 3 Gully F3158 (Fig. 59). A possible 'entrance' was identified in the south of this area between the terminus of F1923 (=3003) and the extrapolated line of F1464 (Grid Square P16-Q17); the northern corner of this 'enclosure' was obscured by later activity. Internally, this sub-rectangular enclosure measured at least 500m². Of the constituent features, Ditch F1923 (=3003) yielded the only noteworthy finds, comprising 80 sherds (1628g) of Roman pottery, animal bone (3767g), CBM (1210g), burnt stone (172g) and shell (578g), as well as small quantities of residual flint. The pottery from this feature included five 2nd to mid/ late 3rd century sherds (90g), 17 2nd to 4th century sherds (490g) and 52 intrusive late 3rd century sherds (978g); the likely source of the latter remains uncertain. The faunal assemblage from F1923 (=3003) comprises elements of cattle, horse, sheep/ goat, large terrestrial mammal and medium terrestrial mammal, and includes evidence of canid gnawing (Cussans 2012).

Ditch F1368 (Grid Square K15-L16) ran more or less parallel to F1687 (=1750) to the south-west of the 'trackway' outlined above. This feature may tentatively have marked part of a third (unnumbered) enclosed area in the northern site quadrant. F1368 yielded 19 sherds (332g) of tightly dated mid-2nd to mid-3rd century pottery, 289g of animal bone and 3144g of CBM. A final less distinct linear feature, Ditch F2009 (Grid Square M16) was also assigned to Roman Sub-Phase 3 Enclosure System 2 (based on its stratigraphic relationships) although bore little resemblance to its contemporaries. Part of this heavily truncated curvilinear ditch also ran parallel to Ditch F1687 (=1750), c. 5.3m to the south-east, but yielded no finds of any description.

Roman Sub-Phase 3 Enclosure System 3

The features comprising Roman Sub-Phase 3 Enclosure System 3 (Table 47; Figs. 65-71) displayed a strong north-west to south-east trend. One possible enclosure (Enclosure 19; Fig. 65) had survived comparatively intact, defined by Ditches F1423 (Grid Square J16-L16), F1536 (=1816; Grid Square L18-P15) and the south-eastern (north-east to south-west) return of Ditch F1819 (=1982; Grid Square N17-P15), a recut of earlier Roman Sub-Phase 3 Ditch F1980 (Grid Square P16). Although the north-western boundary of Enclosure 19 was not visible within the excavated area, its interior can be said to have measured at least c. 520m². A possible access point was visible in the southern corner between F1423 and F1819 (=1982), although the terminus of the latter had been lost to subsequent Roman activity. Of these features, Ditch F1423 yielded the most extensive finds assemblage, including 43 sherds (1135g) of Roman pottery (collectively spanning the mid-2nd to 4th centuries), animal bone (2198g), shell (45g), CBM (8195g), mortar (148g), plaster (91g) and 44g of residual flint. Identified faunal species include cattle, horse, pig, dog and red deer. One horse metatarsal displays multiple skinning marks, scorch marks and canid gnawing (Curl and Cussans this report – *The animal bone*), while a similarly gnawed horse pelvis may be from a small pony (Cussans 2012). Possible common vetch (*Vicia cf. sativa*) from Ditch F1423 might derive from a fodder crop (Summers this report – *The charred plant macrofossils and charcoal*).

Boundary Ditch F1536 (=1816; Grid Square L18-P15) formed part of a collection of four interleaved linear features on the north-eastern edge of Enclosure 19, also including Ditches F1532 (Grid Square L18-P16), F1819 (=1982; Grid Square N17-P15) and F1731 (Grid Square P15) (Fig. 65). The intercutting nature of these features resulted in a somewhat 'circular' stratigraphic sequence; no doubt a product of later disturbance combined with the ubiquitous character of the natural geology and some feature fills on the site. The north-east to south-west return of Ditch F1819 (=1982) suggests that this feature may have formed an earlier demarcation of Enclosure 19, superseded by F1536 (=1816). In contrast, F1532 displayed a short (1.2m) north-eastward return at its south-eastern end (Grid Square P16), suggesting that it did not directly relate to Enclosure 19. The east to west alignment of F1731 was in complete contrast to all other features in this group. None of these features yielded notable finds.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1423	Ditch	J16-L16	WNW-ESE	39.03 x 2.10 x 0.85	Linear	U-Shaped	Concave
1460	Ditch	M18-P16	NW-SE	33.50+ x 1.70+ x 0.67+	Linear	U-Shaped	Concave
1524	Gully	M18-P17	NW-SE	28.00+ x 0.60 x 0.30	Linear	U-Shaped	Concave
1532	Ditch	L18-P16	NW-SE	37.95 x 1.00 x 0.35	Linear	U-Shaped	Concave
1536=1816	Ditch	L18-P15	NW-SE	43.00+ x 1.30 x 0.60	Linear	U-Shaped	Concave
1665	Gully	M18	NE-SW	1.94 x 0.20 x 0.10	Linear	U-Shaped	Concave
1731	Ditch	P15	E-W	6.90 x 0.60 x 1.60	Linear	Gentle	Flat
1819=1982	Ditch	N17-P15	NW-SE & NE-SW	18.88 x 1.25 x 0.43	Linear	V-Shaped	Concave
1826	Gully	N18-P19	NE-SW	12.10 x 0.65 x 0.22	Linear	Gentle	Concave
1875	Ditch	N18-P19	NE-SW	11.36 x 0.90 x 0.42	Linear	Moderate	Concave
2563	Ditch	Q19-R18	NW-SE	18.69 x 0.89 x 0.45	Linear	Gentle	Concave
2627	Ditch	P20	E-W	7.09 x 1.50 x 0.70	Linear	U-Shaped	Concave
2908	Ditch	Q18-R19	NE-SW	10.49 x 0.67 x 0.22	Linear	Moderate	Rounded

Table 47: Principal features forming Roman Sub-Phase 3 Enclosure System 3

A short distance to the north-east of F1532 and F1819 (=1982) were an intercutting pair of features, Ditch F1460 (Grid Square M18-P16) and Gully F1524 (Grid Square M18-P17; Fig. 65). These closely adhered to the north-west to south-east alignment of earlier Ditch F1464 (Roman Sub-Phase 3 Enclosure System 2) and likely constituted sequential recuts of this boundary. Like this earlier feature, it is possible that F1460 and F1524 delineated a trackway or similar with parallel Ditch F1532, at least until the north-eastward return of the latter (Grid Square P16). This interpretation remains tentative however owing to the severe truncation of F1460 by subsequent Roman features. F1524 yielded no finds, while those from F1460 include 24 sherds (570g) of Roman pottery, animal bone (726g), CBM (89g) and burnt flint (6g). The faunal assemblage comprises elements of cattle, horse, large terrestrial mammal and medium terrestrial mammal, and includes evidence of canid gnawing (Cussans 2012). Fill L1462 of this feature also yielded a complete, copper alloy Colchester one piece brooch (SF67; see Cooper this report – *The small finds*).

Still further to the north-east, a dispersed collection of four linear features, Gully F1826 (Grid Square N18-P19) and Ditches F1875 (Grid Square N18-P19), F2563 (Grid Square Q19-R18) and F2908 (Grid Square Q18-R19), appeared to represent the disarticulated remnants of enclosure boundaries, mostly lost to later activity (Fig. 65). Ditch F2563 ran parallel to F1460 (Grid Square M18-P16)/ F1524 (Grid Square M18-P17), c. 31m to the north-east of the latter, and formed a T-shaped arrangement with north-east to south-west aligned Ditch F2908. Parallel Gully F1826 and Ditch F1875 followed a similar alignment to F2908 and were no doubt related in some way to the abovementioned pair. Short Gully F1665 (Grid Square M18), cut at its south-western end by Gully F1524, was also oriented north-east to south-west. However, the dispersed nature of these features prohibits further speculation regarding their precise character/ function. The only finds of note from this group comprise three sherds (21g) of Roman pottery (not closely datable), animal bone (653g) and shell (33g) from F2563 (L2564). As such, these functionally indistinct features were phased according to their stratigraphic relationships. Roman Sub-Phase 3 Ditch F1828 (Grid Square N18) was also found in this area and possibly represented an earlier demarcation of Roman Sub-Phase 4 Ditch F1424 (=1765=1888; Grid Square K17-M15 and M15-P19); this feature yielded no finds. Similarly, short, east to west aligned Ditch F2627 (Grid Square P20), also thought to be associated with this system of features, lacked notable finds.

Roman Sub-Phase 3 Enclosure System 4

At least two stratigraphic phases of Roman Sub-Phase 3 enclosures were present in the south-eastern and south-western quadrants. The earliest features in this area (Roman Sub-Phase 3 Enclosure System 4; Table 48; Figs 72-78), displayed similarities to Roman Sub-Phase 3 Enclosure Systems 1-3 to the north, though no direct stratigraphic link between features in these areas was apparent. Among the earliest of the System 4 features was Ditch F3383 (Grid Square N10-Q12). This ditch was oriented north-east to south-west and was broadly aligned with Roman Sub-Phase 2 Ditch F4598 (Grid Square R13-S14), c. 18m to the north-east; the relationship between these features was obscured by previously excavated site MNL 608. If genuine, this association suggests that Ditch F4598 and the possible double-ditched boundary to which it belonged (see above), survived well into the late 2nd/early 3rd century. Ditch F3383 partially truncated Roman Sub-Phase 3 Ditches F3385 (Grid Square N10-P12) to the north-west and F3430 (Grid Square N10-Q11) to the south-west. The former may have constituted an earlier demarcation of the boundary marked by F3383, or possibly formed a double-ditched boundary with this feature, perhaps forming part of a rectilinear enclosure with Ditches F3453 (Grid Square L12-P8) and F3446 (Grid Square P8-R6; see below). Ditch F3430 was heavily truncated by Roman Sub-Phase 5 Ditches F3378 (Grid Square N10-P11) and F3381 (Grid Square P10-Q11), but appeared to form the north-western corner of a boundary, the two recorded components of which were aligned north-east to south-west and west-north-west to east-south-east. The c. 2m gap between Ditches F3385 (Grid Square N10-P12) and F3430 may tentatively have formed a narrow trackway or similar, oriented north-east to south-west; both features contained similar fills. The south-western extents of F3383, F3385 and F3430 were truncated by Roman Sub-Phase 5 Ditch F3402 (=F3435; Grid Square L12-Q8 and Q8-R9).

Finds from Ditches F3383 (Grid Square N10-Q12), F3385 (Grid Square N10-P12) and F3430 (Grid Square N10-Q11) included quantities of Roman pottery (not closely datable), the largest assemblage of which was yielded by Ditch F3430 (L3431; 44 sherds weighing 893g). Other finds from these features comprise animal bone, CBM, Fe fragments, slag, burnt stone, burnt flint and fired clay. Ditch F3385 yielded the largest faunal assemblage (by weight; 1048g), comprising elements of cattle, horse and large terrestrial mammal, and including evidence of canid gnawing (Cussans 2012). The 994g of animal bone recovered from Ditch F3383 (L3384) comprises elements of cattle, horse, sheep/ goat, dog, large terrestrial mammal and medium terrestrial mammal (*ibid.*).

The west-north-west to east-south-east oriented section of Ditch F3430 (Grid Square N10-Q11) appeared to follow a similar alignment to Roman Sub-Phase 3 Ditches F2489 (Grid Square M12-N12) and F2553 (Grid Square N12), respectively c. 12m and 20m to the west-north-west. These in turn were mirrored by contemporary Ditches F1248 (Grid Square J13-L13), F1265 (Grid Square K13-L13) and F1313 (Grid Square J13-L13), and Gully F1257 (Grid Square K13-L13) c. 15-20m further on still. The latter four features were intercutting and, although only visible in part, likely represented cuts and recuts of the same boundary, possibly continued to the east-south-east by Ditch F2489. Ditch F2483 (Grid Square M13-N13; Roman Sub-Phase 3 Enclosure System 2), c. 5.4m to the north of Ditch F2489, was similarly aligned may have been associated with these seven features.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1248	Ditch	J13-L13	WNW-ESE	14.78 x 2.08 x 0.65	Linear	Steep	Concave
1257	Gully	K13-L13	WNW-ESE	13.11 x 0.50 x 0.20	Linear	U-shaped	Concave
1265	Ditch	K13-L13	WNW-ESE	13.32 x 2.27 x 0.95	Linear	Irregular	Concave
1313	Ditch	J13-L13	WNW-ESE	12.52 x 2.55 x 0.90	Linear	Gentle	Concave
2489	Ditch	M12-N12	WNW-ESE	9.17 x 0.91+ x 0.40	Linear	V-shaped	Flattish
2553	Ditch	N12	WNW-ESE	8.42 x 1.42 x 0.48	Linear	Steep	Concave
3366	Ditch	P9-Q10	NE-SW	22.92 x 1.39 x 0.35	Linear	Moderate	Concave
3383	Ditch	N10-Q12	NE-SW	23.42 x 1.90 x 0.37	Linear	Moderate	Rounded
3385	Ditch	N10-P12	NE-SW	18.38 x 1.20 x 0.38	Linear	Moderate to steep	Flattish
3408	Gully	Q10	ENE-WSW	11.07 x 0.29 x 0.25	Linear	Moderate	Rounded
3424=3426 =3428	Gully	Q9-R8	NW-SE & NE-SW	19.90 x 0.32 x 0.16	Linear	Moderate	Flattish
3430	Ditch	N10-Q11	NE-SW & WNW-ESE	25.51 x 1.20 x 0.67	Linear	Moderate to steep	Concave
3446	Ditch	P8-R6	NW-SE	27.51 x 2.10 x 0.60	Linear	Moderate	Concave
3453	Ditch	L12-P8	NW-SE	29.69 x 1.20 x 0.56	Linear	Steep	Flat
3477	Gully	N10-P9	NW-SE	8.20+ x 0.74+ x 0.15+	Linear	Gentle	Concave
3487	Ditch	P7-Q8	NE-SW & NW-SE	15.41 x 1.20 x 0.31	Linear	Gentle	Concave
3496	Ditch	Q8-R9	NE-SW	8.83 x 0.30 x 0.18	Linear	Moderate	Rounded
3498	Ditch	R9	NE-SW	3.21 x 0.48 x 0.26	Linear	Steep	Rounded
3516	Ditch	P7-Q7	Curvilinear	12.70 x 0.48+ x 0.36	Curvilinear	Steep	Concave
3799	Gully	W13-X12	NW-SE	4.83 x 0.30+ x 0.23	Linear	Moderate to steep	Concave
4104	Ditch	J8-L10	NE-SW	21.03+ x 0.85 x 0.45	Linear	Moderate	Concave
4487	Ditch	L11-L12	N-S	19.21 x 3.04 x 0.40	Linear	Moderate	Flat
4489	Ditch	L11-L12	Curvilinear	3.97 x 2.10 x 0.40	Curvilinear	Moderate	Concave
4491	Ditch	L11-L12	N-S	4.05 x 0.91 x 0.32	Linear	Moderate	Flat
4875	Gully	T11-V12	NE-SW	1.48 x 1.10 x 0.40	Linear	Moderate	Gentle
5007	Ditch	T10-T11	Curvilinear	6.80+ x 2.60 x 0.53	Curvilinear	Gentle	Concave

Table 48: Principal features forming Roman Sub-Phase 3 Enclosure System 4

Both Ditches F2489 (Grid Square M12-N12) and F2553 (Grid Square N12) yielded modest quantities of Roman pottery (571g in total), including two mid-2nd to mid-3rd century sherds from L2490 (F2489). Both features also yielded trace amounts of animal bone. F1248 (Grid Square J13-L13), F1265 (Grid Square K13-L13) and F1313 (Grid Square J13-L13) also contained Roman pottery, some of which was tightly datable; Ditch F1248 yielded eight late 2nd to late 3rd century sherds (59g), while Ditch F1265 yielded nine sherds (374g) including five late 2nd to mid-3rd century examples. A single undiagnostic Roman sherd (15g) was also recovered from Ditch F1313; F1257 was devoid of finds. Other finds from these features include CBM and animal bone. The greatest faunal assemblage (2156g) was recovered from F1265 and comprises elements of cattle, sheep/ goat, pig, large terrestrial mammal and medium terrestrial mammal. The cattle bones from this feature include a number of skull fragments, including a frontal bone fragment displaying cut marks (Curl and Cussans this report – *The animal bone*). The 977g of animal bone recovered from F1248 comprises elements of cattle, horse, sheep/ goat, dog, large terrestrial mammal and medium terrestrial mammal, and includes evidence of canid gnawing (*ibid.*). Sparse quantities of burnt stone and residual struck flint were also found within Ditches F1248 and F1313.

Intercutting Roman Sub-Phase 3 Ditches F4487, F4489 and F4491 (Grid Square L11-L12; Fig. 72) were found approximately 6m to the west of Ditch F2553 (Grid Square N12). These heavily truncated features were more-or-less perpendicular to the west-north-west to east-south-east oriented ditches and gullies described above, and may have formed associated elements of enclosure boundaries or similar; their poor survival hindered a more thorough appraisal however. Ditch F4489 was the stratigraphically latest of these features and truncated F4487; the latter was also cut

by north-west to south-east aligned Roman Sub-Phase 3 Ditch F3453 (Grid Square L12-P8; see below). F4487 cut F4491 which in turn truncated Roman Sub-Phase 2 Pit F4498. Although these ditches may have constituted recuts of the same boundary alignment, the somewhat curvilinear plan of F4489 suggested the later modification or superseding of this boundary. No similarly aligned, contemporary ditches or gullies were identified in the immediate vicinity. Although Ditches F4487 and F4489 yielded Roman pottery (two sherds (7g) and nine sherds (88g) respectively) this is not closely datable and the features were principally phased according to their stratigraphic relationships.

Stratigraphically early Roman Sub-Phase 3 Ditch F3366 (Grid Square P9-R10) and Gully F3408 (Grid Square Q10) were found c. 13m south-east of Ditch F3383 (Grid Square N10-Q12) in the south-western quadrant. These followed a similar alignment to the latter and were spaced approximately 2m apart. However, the precise nature of their relationship, if genuine, was masked by later truncation; F3408 was cut by Roman Sub-Phase 3 Gully F3374 (Grid Square Q10; see below). The south-western section of Ditch F3366 was truncated by Roman Sub-Phase 3 Ditch F3453 (Grid Square L12-P8) and may have formed part of a rectilinear enclosure (Enclosure 20) with this feature, and the (possible) double-ditched boundary formed by F3383 and F3385 (Grid Square N10-P12; Fig. 72). The interior of Enclosure 20 would have measured in excess of 300m², though its north-eastern extent was masked by site MNL 608 and the tree preservation area. Finds from F3366 and F3408 constitute just two sherds (76g) of Roman pottery (not closely datable) from Fill L3367 (F3366). As such, both features were phased on stratigraphic grounds.

Both Ditch F3366 (Grid Square P9-R10) and Gully F3408 (Grid Square Q10) truncated stratigraphically earlier Roman Sub-Phase 3 Gully F3424 (=3426=3428; Grid Square Q10-R8). This feature was mostly aligned north-west to south-east but had a short (c. 1.2m) north-eastward return at its north-western end. The south-eastern end of this gully truncated irregular Roman Sub-Phase 3 Gully F3521 (Grid Square Q9-R8), which in turn cut Gully F3496 (Grid Square Q8-R9); the latter was also cut by roughly contemporary Gully F3498 (Grid Square R8-R9). F3496 and F3498 ran perpendicular to the longest section of Gully F3424 (=3426=3428) and likely formed a rectilinear boundary with this feature and Gully F3521; the (unnumbered) area partially enclosed by these features measured at least 133m² but was mostly obscured by the tree preservation area (Fig. 72). The principal features forming this boundary were similar in plan and contained practically identical fills. The only notable finds assemblage was yielded by Gully F3498, comprising 13 sherds (165g) of Roman pottery (not closely datable), animal bone (40g), CBM (89g), slag (261g) and burnt flint (32g). One sherd (16g) of residual Iron Age pottery was recovered from F3424 (=3426=3428), though the source of this material remains uncertain. Due to the lack of diagnostic pottery, the constituent features of this boundary were phased according to their stratigraphic relationships and locations in respect to nearby Roman Sub-Phase 3 features.

The north-east to south-west alignment of Gullies F3496 (Grid Square Q8-R9) and F3498 (Grid Square R8-R9), later recut by Roman Sub-Phase 3 Ditch F3502 (Grid Square Q8-R9; see below), was apparently continued to the north-east of the tree preservation area (south-eastern quadrant) by Ditch F5007 (Grid Square T10-T11) and Gully F4875 (Grid Square V11-T12; Fig. 72). These features were partially recut

by Roman Sub-Phase 3 Ditch F5005 (Grid Square T10-T11; see below) and ran perpendicular to Roman Sub-Phase 5 Gully F3801 (Grid Square V14-X12), an apparent recut of Roman Sub-Phase 3 Gully F3799 (Grid Square W13-X12). Ditches F3446 (Grid Square P8-R6) and F3453 (Grid Square L12-P8; see above) followed a similar north-west to south-east alignment and appeared to form a single boundary, partially recutting stratigraphically earlier Roman Sub-Phase 3 Ditch F3477 (Grid Square N10-P9). This uniformity of Roman Sub-Phase 3 ditches and gullies across the south-eastern and south-western quadrants almost certainly represented a series of enclosures on a similar alignment to those in the northern quadrant, albeit more heavily truncated. Nonetheless, the alignments of the major ditches and gullies in this sub-phase were strikingly similar across the site as a whole.

Finds from F3446 (Grid Square P8-R6), F3477 (Grid Square N10-P9), F3799 (Grid Square W13-X12), F4875 (Grid Square V11-T12) and F5007 (Grid Square T10-T11) were scarce. Fewer of these features yielded finds of any type and none of any particular note. The only closely datable pottery comprises two residual prehistoric sherds (14g) from F3446 (L3447 and L3557; Seg.E and F), though the source of this material is unclear. The closest identified Period I activity was c. 19-24m to the east. All of these features fell within a clear stratigraphic sequence however, and were phased accordingly. Their likely contemporaneity was also suggested by their similar alignments.

Three further features to the south-west of F3453 and F3446 (Grid Square L12-R6) were also likely part of Roman Sub-Phase 3 Enclosure System 4. Ditch F3487 (Grid Square P7-Q8) was aligned north-east to south-west and north-west to south-east, the latter section being truncated by the south-western edge of Ditch F3446. F3446 may have represented a recut of this earlier alignment, possibly forming a squared enclosure with Ditch F3487 (Fig. 72). Though internal measurement of this tentative enclosure proved impractical, an internal division of space may have been marked by Roman Sub-Phase 3 Ditch F3516 (Grid Square P7-Q7). This somewhat curvilinear feature ran roughly north-west to south-east, parallel to F3446, across an area of some 10.1m and was truncated at its northern end by F3487. As such, it might not have been wholly contemporary to the 'enclosure' marked by F3487 and F3446. A further short section of truncated ditch (F3508; Grid Square P7) was visible immediately south-west of F3516, running c. north-east to south-west. Although the alignment of this ditch appeared to mirror part of Ditch F3487, c. 2.5m to the north-west, the function of F3508 and its relationship to the above features remains unclear; only 3.21m of this feature was exposed during excavation.

Pottery from Ditches F3487 (Grid Square P7-Q8), F3508 (Grid Square P7) and F3516 (Grid Square P7-Q7) was broadly dated to the 2nd century AD. Ditch F3487 yielded the most closely datable assemblage, comprising 21 2nd century sherds (369g), while F3516 contained 14 sherds (344g) of late 1st to mid-2nd century date; ten of these sherds derive from a West Stow cream wear flagon (see Peachey this report – *The prehistoric and Roman pottery*). The two sherds (97g) of pottery from Ditch F3508 are less closely datable. One find of particular interest is a tapering, sub-rectangular length of broken whetstone from Fill L3517 of Ditch F3516, similar to Roman Sub-Phase 5 and 6 examples from the site (see Cooper this report – *The small finds*).

Ditch F4104 (Grid Square J8-L10; Fig. 72) was found c. 18.7m to the south-west of Ditch F3453 in the south-western quadrant. This feature was perpendicular to the latter, being aligned north-east to south-west, and appeared to constitute a recut of stratigraphically earlier Roman Sub-Phase 3 Ditch F4102 (Grid Square J9-K9). This in turn cut Gully F4069 (Grid Square J9-L9) which was itself truncated Roman Sub-Phase 3 Gully 4293 (Grid Square K9). The c. east to west alignment of F4069 contradicted other features in this sequence, although the pottery assemblage from this feature places it firmly within Roman Sub-Phase 3; the vast majority of the 54 sherds (1276g) recovered date between the mid to late 2nd/ early 3rd centuries. Other finds from this feature include animal bone (1496g), pumice (215g) and CBM (996g). The faunal assemblage comprises elements of cattle, sheep/ goat, bird (possible goose), large terrestrial mammal and medium terrestrial mammal; two cattle vertebrae from this feature displayed severe pathological modification (Curl and Cussans this report – *The animal bone*). The pottery assemblage from Ditch F4104 is similarly diagnostic, largely comprising mid-2nd to mid-3rd century sherds (23; 305g), while the six sherds (245g) of pottery recovered from F4102 were mostly intrusive (3rd/ late 3rd to 4th century), and probably derive from Roman Sub-Phase 6 Ditch F4106 (=4250; Grid Square J8-M10). Gully F4293 yielded just one sherd of Roman pottery (not closely datable), while other finds from these features were unremarkable, comprising modest quantities of animal bone, CBM, shell, burnt stone and residual struck flint.

Although some distance from Ditch F3453 (Grid Square L12-P8), the alignment of Ditch F4104 (Grid Square J8-L10) strongly suggested that the two were related. Both also contained similar individual fills, though displayed different profiles, albeit comparable in width and depth. It is tentatively possible that they formed associated elements of a substantial enclosure(s) once encompassing much of the south-western quadrant. The alignment of F4104 may also have been continued in the western quadrant by Ditch F2169 (Grid Square F6-G7), possibly forming the south-eastern boundary of a substantial enclosure (see below).

Roman Sub-Phase Enclosure System 5

Roman Sub-Phase 3 Enclosure System 5 fell predominantly within the south-western site quadrant (Figs. 79-81). None of the 12 principal ditches and gullies assigned to this system (Table 49) yielded closely datable pottery assemblages, though all but three yielded undiagnostic Roman pottery in modest quantities. Nonetheless, all were stratigraphically later than the features forming Roman Sub-Phase 3 Enclosure System 4 (see above) and mostly appeared to constitute additions to/ recuts of this earlier system.

Gullies F3370 (Grid Square P9-Q10) and F3374 (Grid Square Q10) were sequential recuts of earlier north-east to south-west aligned Roman Sub-Phase 3 Gully F3408 (Grid Square Q10) (Fig. 79). These were in turn replaced by Gully F3372 (Grid Square P9-Q10), which followed an identical alignment. It is tentatively possible that substantial Roman Sub-Phase 3 Ditch F3453 (Grid Square L12-P8; Roman Sub-Phase 3 Enclosure System 4), a short distance south-west of these gullies, remained 'open', forming part of an enclosure with these later features. However, the area between these features was heavily truncated by later Roman activity and any relationship remains uncertain.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
3370	Gully	P9-Q10	NE-SW	16.79+ x 0.34 x 0.36	Linear	Moderate	Concave
3372	Gully	P9-Q10	NE-SW	14.12+ x 0.38 x 0.28	Linear	Steep	Concave
3374	Gully	Q10	NE-SW	14.24+ x 0.35 x 0.38	Linear	Moderate	Concave
3392	Gully	Q9-R9	NW-SE	7.99+ x 0.55 x 0.70	Linear	Moderate	Concave
3404=3483	Ditch	P7-R9	NE-SW	28.01+ x 0.98 x 0.37	Linear	Moderate	Concave
3485	Ditch	P7-Q8	NE-SW	13.78+ x 1.12 x 0.42	Linear	Moderate	Concave
3502	Ditch	Q8-R9	NE-SW	8.83+ x 0.46 x 0.28	Linear	Moderate	Concave
4341	Ditch	J9-K10	ENE-WSW	11.93+ x 0.32 x 0.11	Linear	Steep	Flat
4343	Ditch	K11-K9	NNW-SSE	? X 0.62 x 0.18	Linear	Gentle	Flattish
4383	Ditch	J10-K9	NNW-SSE & c. E-W	14.24+ x 1.35 x 0.33	Linear	Moderate	Concave
4514	Gully	J11-K11	ENE-WSW	10.87 x 0.77 x 0.28	Linear	Steep	Flat
5005	Ditch	T10-T11	NE-SW	? X 0.63+ x 0.31	Curvilinear	Moderate	Flattish

Table 49: Principal features forming Roman Sub-Phase 3 Enclosure System 5

Ditch F3404 (=3483; Grid Square P7-R9), located c. 10m to the south-east of Gully F3370, likewise followed a north-east to south-west alignment. This Ditch truncated Gully F3424 (=3426=3428; Grid Square Q9-R8) and Ditches F3446 (Grid Square P8-R6), F3487 (Grid Square P7-Q8) and F3516 (Grid Square P7-Q7; Roman Sub-Phase 3 Enclosure System 4) and was itself cut by Gully F3392 (Grid Square Q9-R9) and Ditch F3485 (Grid Square P7-Q8) (see below). It is likely that F3404 (=3483) related to the boundary marked by Gullies F3370 (Grid Square P9-Q10), F3372 (Grid Square P9-Q10) and F3374 (Grid Square Q10), though the space they enclosed could not be meaningfully measured. Gully F3392 (Grid Square Q9-R9) ran north-west to south-east and truncated the north-eastern section of F3404 (=3483), though its relationship to those features immediately to the north-west was obscured by modern disturbance.

The south-eastern terminus of Gully F3392 (Grid Square Q9-R9) was truncated by Roman Sub-Phase 3 Ditch F3502 (Grid Square Q8-R9). This feature ran parallel to earlier Roman Sub-Phase 3 Ditch F3404 (=3483; Grid Square P7-R9), c. 1.5m to the north-west, and likely superseded this 'boundary'. As previously stated, the south-western section of F3404 (=3483) was cut by Ditch F3485 (Grid Square P7-Q8); this feature was perfectly aligned with nearby Ditch F3502 and their opposing termini appeared to form some kind of entrance or access point, c. 3.8m wide. If this were the case then it seems extremely unlikely that Ditch F3404 (=3483) persisted in any form after the establishment of F3485 and F3502. Ditch F5005 (GS T10 - T11), approximately 23m to the north east of Ditch F3502 (south-eastern quadrant), may have continued the alignment of the latter, though their relationship was obscured by the tree preservation area. Both represented recuts of stratigraphically earlier Roman Sub-Phase 3 features however and it is likely that they were related in some way. The south-western edge of F3485 also truncated Roman Sub-Phase 3 Ditch F3510 in Grid Square P7. This stratigraphically earlier feature appeared to be aligned c. east to west however, and its relationship to surrounding Roman Sub-Phase 3 features remains unclear; F3510 yielded no finds.

Towards the western edge of the south-western quadrant were three intercutting Roman Sub-Phase 3 ditches (F4341 (Grid Square J10-K10), F4343 (Grid Square K9-K11) and F4383 (Grid Square J10-K9)), and a single gully (F4514 (Grid Square J11-K11)) (Fig. 79). Two of these features were oriented east-north-east to west-south-west, while two were oriented north-north-west to south-south-east. Despite these similarities however, the intercutting of these features cast doubt upon their contemporaneity. Ditch F4343 truncated earlier Ditch F4104 (Grid Square J8-L10; Roman Sub-Phase 3 Enclosure System 4) and Ditch F4341, and was itself cut by

Gully F4514. Ditch F4383 was truncated by F4341 and cut similarly phased Pit F4232 (Grid Square K9). This pit also truncated the fill of F4104, thus making Ditch F4383 stratigraphically later than this earlier alignment. To summarise, although these four features appeared to fit stratigraphically within Roman Sub-Phase 3 Enclosure System 5, it is uncertain if or how they functioned as a unit; the south-western site quadrant was also subject to heavy truncation by later features.

Dispersed Roman Sub-Phase 3 ditches and gullies (northern, south-eastern and south-western quadrants)

A total of 17 further Roman Sub-Phase 3 ditches and gullies were identified within the northern, south-eastern and south-western quadrants). These were either dispersed or did not display any form of spatial or functional patterning, and were all stratigraphically isolated from the Roman Sub-Phase 3 enclosure systems described above. Spatially however, these features could be broken down into three loose clusters and four comparatively isolated features, and will be summarised as such.

Although intercutting, too little of the first 'cluster' of dispersed Roman Sub-Phase 3 ditches and gullies (northern quadrant; Table 50) survived to aid in their interpretation. The alignments of these features were comparable to other Roman Sub-Phase 3 ditches and gullies in the surrounding area and, although stratigraphically removed from the Roman Sub-Phase 3 enclosure systems, it is likely that they were related. Only Gully F2522 (Grid Square Q13) yielded finds of any sort, comprising just two sherds (33g) of Roman pottery (not closely datable). However, this grouping of features was largely truncated by Roman Sub-Phase 4 Ditch F2503 (Grid Square R14-T15) and they were phased accordingly.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
2480	Ditch	P13-Q13	NE-SW	9.63 x 0.56 x 0.35	Linear	U-shaped	Concave
2501	Gully	Q13	NW-SE	4.45 x 0.21 x 0.10	Linear	U-shaped	Concave
2520	Gully	Q13	NW-SE	3.72 x 0.27 x 0.18	Linear	U-shaped	Concave
2522	Gully	Q13	NW-SE	3.72 x 0.57 x 0.30	Linear	U-shaped	Concave
2526	Ditch	P13-Q13	NE-SW	2.65 x 0.55 x 0.50	Linear	U-shaped	Concave

Table 50: Dispersed Roman Sub-Phase 3 ditches and gullies (northern quadrant)

The second 'cluster' of dispersed Roman Sub-Phase 3 ditches and gullies (Table 51) was identified on the southern edge of the south-western quadrant. Two of these, Ditches F3926 and F3928 (Grid Square M8-N8) were intercutting, though the remainder were somewhat dispersed. This 'cluster' appeared to form a disjointed rectilinear arrangement and may have constituted the boundary of a small enclosure. However, considerable truncation by subsequent Roman features (Roman Sub-Phase 5 and later) makes this interpretation tentative at best. Nonetheless, their orientation was consistent with other Roman Sub-Phase 3 linear features in the vicinity, e.g. Ditches F4104 (Grid Square J8-L10) and F3453 (Grid Square L12-P8). The only datable sherd (24g) of pottery was yielded by Gully F3964 (Grid Square K7-L7), and was late 1st to 2nd century in origin. Another single sherd (16g) of undiagnostic Roman pottery was recovered from Ditch F3883 (Grid Square L7-L8). As such, these features were largely phased based on their alignments and stratigraphic position.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
3883	Ditch	L7-L8	NNE-SSW	5.79 x 1.20 x 0.48	Linear	Gentle	Concave
3905	Gully	L8-M8	NE-SW	10.43+ x 0.18 x 0.25	Linear	Moderate	Concave
3926	Ditch	M8-N8	NW-SE	7.88+ x 0.37 x 0.19	Linear	Moderate	Concave
3928	Ditch	M8-N8	NW-SE	5.45+ x 0.45 x 0.24	Linear	Moderate	Concave
3964	Gully	K7-L7	NW-SE	4.77 x 0.57 x 0.17	Linear	U-shaped	Flat

Table 51: Dispersed Roman Sub-Phase 3 ditches and gullies (south-western quadrant) (1 of 3)

The third 'cluster' of dispersed Roman Sub-Phase 3 ditches and gullies (Table 52) traversed the south-eastern and south-western quadrants. Five of these features shared similar alignments and several were intercut. As such, it is probable that they were in some way related, though the nature of their relationship remains indeterminate. Bar F4269 (Grid Square U7), which was approximately perpendicular to contemporary Ditch F3446 (Grid Square P8-R6; c. 23m to the west), they did not align with other Roman Sub-Phase 3 linear features in this area of the site. The only finds assemblage of note was yielded by Ditch F5128 (Grid Square U9) and comprises 21 sherds (552g) of Roman pottery, including two late 1st to mid-3rd century examples, 25g of animal bone and 38g of shell. Several of these ditches and gullies truncated earlier Roman Sub-Phase 2 features however, and the 'cluster' was tentatively phased based on these relationships.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
4198	Gully	T7-T8	NNW-SSE	7.16 x 0.35 x 0.06	Linear	Gentle	Flattish
4269	Gully	U7	NE-SW	5.87+ x 0.50 x 0.48	Linear	Steep	Flattish
4299	Ditch	T7-U7	NNW-SSE	5.96+ x 0.68 x 0.12	Linear	Gentle	Flattish
4330	Ditch	T7	NNW-SSE	1.28+ x 0.50 x 0.20	Linear	Moderate	Concave
4349	Gully	V7	c. N-S	3.41+ x 0.60 x 0.17	Linear	Moderate	Concave
5113	Gully	U8-U9	c. N-S	1.04 x 0.43 x 0.25	Linear	Steep	Concave
5124	Ditch	U8-U9	Curvilinear	5.20 x 1.30 x 0.85	Curvilinear	Steep	Concave
5128	Ditch	U9	NE-SW	3.24 x 1.55 x 0.78	Linear	Steep	Concave

Table 52: Dispersed Roman Sub-Phase 3 ditches and gullies (south-western quadrant) (2 of 3)

Gully F3432 (Grid Square N9-P9; Table 53) was found adjacent to the south-western edge of Roman Sub-Phase 3 Gully F3477 (Grid Square N10-P9). However, these features were differently oriented, the latter being aligned north-west to south-east while F3432 ran east to west. F3432 was only partially exposed during the excavation and its relationship to nearby Roman Sub-Phase 3 features remains uncertain. Finds from this feature comprise two sherds (127g) of early/ mid-2nd to 4th century pottery. Roman Sub-Phase 3 Gully F3439 (Grid Square Q9) was located c. 12m to the south-east of F3432, possibly within the confines of a loosely defined enclosure (Roman Sub-Phase 3 Enclosure System 5). This truncated feature did not align with surrounding Roman Sub-Phase 3 ditches and gullies however. F3439 yielded no finds but was cut by tightly dated Roman Sub-Phase 5 Ditch F3402 (=3435).

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
3432	Gully	N9-P9	E-W	1.81+ x 0.38+ x 0.16	Linear	Gentle	Concave
3439	Gully	Q9	N-S	1.07+ x 0.23 x 0.11	Linear	Gentle	Concave
4973	Ditch	T11-T12	ENE-WSW	1.13 x 0.67+ x 0.42	Linear	Moderate	Concave
5131	Ditch	U10	NNE-SSW	1.30 x 0.80 x 0.55	Linear	Steep	Concave

Table 53: Dispersed Roman Sub-phase 3 ditches and gullies (south-western quadrant) (3 of 3)

Ditch F4973 (Grid Square T11-T12; Table 56) truncated Roman Sub-Phase 2 Ditch F4971 (Grid Square T11) and was in turn cut by Roman Sub-Phase 4 Ditch F4975 (Grid Square S11-T11). F4973 may have been associated with parallel Roman Sub-Phase 3 Gully F4875 (Grid Square T11-V12) and Ditches F5005 and F5007 (Grid

Square T10-T11) to the south-east, though this remains uncertain. However, Ditch F4973 yielded a notable finds assemblage, comprising six sherds (630g) of early/mid to late 2nd century pottery, 1779g of animal bone, 1911g of slag and 210g of CBM. The faunal assemblage comprises elements of cattle, horse, large terrestrial mammal and medium terrestrial mammal, and includes evidence of canid gnawing (Cussans 2012).

The final dispersed Roman Sub-Phase 3 linear feature, Ditch F5131 (Grid Square U10), was located c. 14m to the south-east of Roman Sub-Phase 3 Ditch F5007 (Grid Square T10-T11) in the south-eastern quadrant. This feature, though heavily truncated, appeared to mirror both F5007 and F5005 in plan, and may have been related to one or both of these. However, the south-western extent of F5131 was obscured by the tree preservation area and its north-eastern end was wholly truncated by later Roman features. F5131 was only tentatively assigned to Roman Sub-Phase 3; this feature yielded just a modest quantity of animal bone.

Roman Sub-Phase 3 ditches and gullies in the western quadrant

Of the principal Roman Sub-Phase 3 linear features encountered in the western quadrant (Table 54; Figs. 82-85), five (Ditches F1107 (Grid Square B4), F1109 (Grid Square C8-D7) and F2199 (Grid Square G11-G12), and Gullies F1259 (Grid Square E8) and F2370 (Grid Square G8-G9)) were either completely or relatively isolated from contemporary features. Only two of these contained finds of any description: Ditch F1107 yielded 35g of animal bone and 4g of burnt flint, while Ditch F1109 (Grid Square C8-D7) contained 5 sherds (63g) of Roman pottery, mostly 2nd to 4th century in date, and 1142g of animal bone. The faunal assemblage from F1109 comprises elements of cattle, large terrestrial mammal and medium terrestrial mammal. Ditch F1107 was truncated to the north by Roman Sub-Phase 4 Ditch F1105 (Grid Square A5-B4), while F1109 was truncated by Roman Sub-Phase 6 Gully F1121 (Grid Square C8-D8); both features were cut into Natural L1002. Like Ditch F1107, Gullies F1259 (Grid Square E8) and F2370 (Grid Square G8-G9), and Ditch F2199 (Grid Square G11-G12) were only tentatively assigned to Roman Sub-Phase 3 based on their stratigraphic relationships. F2199 was truncated by Roman Sub-Phase 4 Ditch F2209 (=2235; Grid Square G12-G13), while the remaining two were cut by Roman Sub-Phase 5 features.

Roman Sub-Phase 3 Ditch F1109 (Grid Square C8-D7) loosely mirrored the north-west to south-east alignment of Roman Sub-Phase 3 Ditch F1208 (=2179=2216; Grid Square E9-F7), c. 20m to the east-north-east (Fig. 82). It is possible that these features (both similar in plan and profile) formed respective boundaries of and enclosed space; the fills of these ditches varied considerably however. F1208 (=2179=2216) appeared to represent a recut of earlier Roman Sub-Phase 3 Ditch F2181 (Grid Square F7-F8; visible in section only); this feature yielded no finds. Gully F1259 (Grid Square E8) was located midway between Ditches F1109 and F1208 (=2179=2216; Grid Square E9-F7) and may tentatively have been associated with these features.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1107	Ditch	B4	NE-SW	1.70 x 0.92 x 0.14	Linear	Moderate	Flattish
1109	Ditch	C8-D7	N-S	7.60 x 1.20 x 0.33	Linear	U-shaped	Concave
1171=1193	Gully	D10-E11	NNE-SSW	14.45 x 0.40 x 0.12	Linear	U-shaped	Concave
1206	Ditch	D11	NNE-SSW	1.76 x 0.48 x 0.20	Linear	Gentle	Concave
1208=2179=2216	Ditch	E9-F7	NW-SE & NE-SW	8.19 x 1.30 x 0.50	Linear	Steep	Concave
1259	Gully	E8	ENE-WSW	1.80+ x 0.47 x 0.12	Linear	Gentle	Concave
2143	Ditch	E7-E8	N-S	3.63 x 0.89 x 0.19	Linear	U-shaped	Concave
2145	Ditch	E7	N-S	0.98+ x 0.53 x 0.16	Linear	U-shaped	Concave
2147	Ditch	E7-E8	N-S	0.98+ x 0.50 x 0.25	Linear	U-shaped	Concave
2149	Gully	E7-E8	N-S	0.98+ x 0.70 x 0.21	Linear	U-shaped	Concave
2167=2245	Ditch	F6-G6	NE-SW	8.04 x 0.97+ x 0.40	Linear	Gentle	Concave
2169	Ditch	F6-G7	NE-SW	21.75 x 1.41 x 0.86	Linear	Moderate	Flattish
2199	Ditch	G11-G12	Curvilinear	4.25 x 0.26 x 0.19	Curvilinear	Moderate	Concave
2237	Gully	F6	NW-SE	0.98+ x 0.36 x 0.27	Linear	Moderate	Concave
2243	Gully	F6	NE-SW	3.80 x 0.30 x 0.30	Linear	Vertical	Flat
2284	Gully	E5-F6	NNE-SSW	0.98+ x 0.38+ x 0.38	Linear	Steep	Concave
2370	Gully	G8-G9	Curvilinear	2.83 x 0.30 x 0.23	Curvilinear	U-shaped	Concave
2378	Gully	G9-G10	Curvilinear	2.78 x 0.60 x 0.17	Curvilinear	Gentle	Concave
2382	Gully	G9-G10	NW-SE	6.08 x 0.70 x 0.31	Linear	Moderate	Concave
2405	Ditch	F6-G6	NW-SE	1.31+ x 0.45+ x 0.27	Linear	Gentle	Flat
2423	Ditch	F6	ENE-WSW	? X 0.30 x 0.16	Linear	Moderate	Concave

Table 54: Principal ditches and gullies (western quadrant)

North to south aligned Roman Sub-Phase 3 Ditches F2143 (Grid Square E7-E8), F2145 (Grid Square E7), F2147 (Grid Square E7-E8) and F2149 (Grid Square E7-E8) were located c. 5m south-west of Ditch F1208 (=2179=2216; Grid Square E9-F7) (Fig. 82). The orientation of this intercutting group was at odds to other Roman Sub-Phase 3 linear features in the vicinity, with the possible exception of F1109 (c. 14.5m to the west), and their function remains uncertain. Ditch F2145 was the earliest of the four, cutting Natural L1002 and being truncated by F2149. The latter was cut in turn by Ditch F2147, which was itself truncated by Ditch F2143. F2143 was truncated by Roman Sub-Phase 6 Ditch F1187 (=2133=2138; Grid Square D8-E7). Each of these four features was shallow and all contained identical individual fills; it is possible that the timeframe, within which each of these ditches was cut, filled and superseded was relatively short. The only finds from this group comprise two sherds (45g) of Roman pottery (not closely datable) and 125g of slag from F2149. These features were only tentatively assigned to this sub-phase.

Parallel Ditch F1171 (=1193; Grid Square D10-E11) and Gully F1206 (Grid Square D11) followed a north-north-east to south-south-west alignment on the western edge of the western quadrant (Fig. 82). These features were spaced c. 3m apart and may tentatively have formed a section of trackway or similar running north-north-eastwards from a southern 'area', possibly defined by Roman Sub-Phase 3 Ditches F1109 (Grid Square C8-D7) and F1208 (=2179=2216; Grid Square E9-F7; see above). The northern continuation of F1171 (=1193) was obscured by the excavation edge. Neither feature forming this possible Roman Sub-Phase 3 trackway yielded finds of any description but both were truncated by Roman Sub-Phase 4 Ditch F1191 (Grid Square D11-E11).

The north-east to south-west aligned 'return' of Ditch F1208 (=2179=2216; Grid Square E9-F7) ran parallel to Ditch F2169 (Grid Square F6-G7), c. 7.2m to the south-east (Fig. 82). Ditch F2167 (=2245; Grid Square F6-G6), a recut of stratigraphically earlier Roman Sub-Phase 3 Ditch F2165 (Grid Square G6), also ran parallel to F2169, c. 1.5m from its south-eastern edge. As stated above, Ditch F2169 possibly represented a continuation of Roman Sub-Phase 3 Ditch F4104 (Grid Square J8-L10; south-western quadrant). These features displayed similar

profiles, though F4104 was both narrower and shallower, and their fills were broadly comparable. The line of F2169 and F4104 may have constituted the south-eastern boundary of a large enclosure, the south-western edge of which was possibly formed by the long axis of Ditch F1208 (=2179=2216). The 7.2m gap between Ditches F1208 (=2179=2216) and F2169 appeared to form an entrance to this 'enclosure'. As Ditch F2167 (=2245) ran perfectly parallel to F2169, it is likely to have related to this feature in some respect; the gap between the two potentially formed a path or trackway, though the subsequent truncation of both features makes this difficult to determine. Roman Sub-Phase 3 Ditch F2403 (Grid Square F6) was also identified in this area and yielded mid-2nd to 4th century pottery. Unfortunately, this feature was only visible in section, having been wholly truncated by Roman Sub-Phase 5 Ditch F2174 (Grid Square E6-G7); its relationship to neighbouring Roman Sub-Phase 3 features remains uncertain.

The finds from Ditches F2167 (=2245) and F2169 were remarkably similar, further attesting to their contemporaneity and possible relationship. F2169 yielded 27 sherds (263g) of mid-2nd to early 3rd century pottery, while F2167 contained 18 predominantly early/ mid-2nd to mid-3rd century sherds (282g). Both features also yielded CBM, trace amounts of shell and substantial quantities of animal bone (1624g and 1959g respectively). The combined faunal assemblage comprises elements of cattle, horse, sheep/ goat, dog and large terrestrial mammal, and includes evidence of canid gnawing (Cussans 2012). One horse radius displays three areas of 'punch' marking apparently created by a pointed triangular metal tool (*ibid.*). Ditch F2165 was devoid of finds.

The area immediately to the south of Ditches F2167 (=2245; Grid Square F6-G6) and F2169 (Grid Square F6-G7) contained five variably aligned Roman Sub-Phase 3 ditches and gullies: F2237 (Grid Square F6), F2243 (Grid Square F6), F2284 (Grid Square E5-F6), F2405 (Grid Square F6-G6) and F2423 (Grid Square F6; Table 54; Fig. 82). Bar Gully F2243 which cut the fill of Ditch F2423, these features all truncated Natural L1002 and most were heavily disturbed by later Roman Sub-Phase 5 features. Closely dated Ditches F2167 (=2245) and F2169 occupied an identical stratigraphic position. Only two of these features yielded finds, including two sherds (12g) of undiagnostic Roman pottery and 923g of animal bone. Despite lacking closely datable material, these five features were tentatively assigned to Roman Sub-Phase 3 based on their stratigraphic similarities to nearby F2167 (=2245) and F2169. Roman Sub-Phase 3 Gully F2304 (Grid Square E5), similarly cut into Natural L1002, was also identified in this area (in section only). This feature yielded no finds and was entirely truncated by Roman Sub-Phase 4 Ditch F2302.

An intercutting pair of truncated Roman Sub-Phase 3 gullies, F2378 and F2382 (GS G9 - G10), was located on the eastern edge of the western quadrant, c. 16.5m north of Ditch F1208 (=2179=2216; Grid Square E9-F7; Table 54; Fig. 82). The later of these features, F2382 yielded 11 sherds (172g) of 3rd century pottery, while F2378 contained only four undiagnostic Roman sherds (435g). The latter truncated Natural L1002, while F2382 was truncated by Roman Sub-Phase 5 Gully F2380 (Grid Square G9-G10). Gullies F2378 and F2382 contained identical fills and were broadly phased according to their stratigraphic relationships (similar to other Roman Sub-Phase 3 features in the vicinity) and the datable pottery from F2382. These features were loosely parallel to the long axis of Ditch F1208 (=2179=2216; Grid

Square E9-F7) and may tentatively have formed surviving elements of a (recut) north-west to south-east aligned boundary.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
3031	Ditch	E3	N-S	? x 1.14 x 0.32	Linear	Moderate	Concave
3033	Ditch	E2-E3	N-S	? x 0.74 x 0.21	Linear	U-shaped	Flattish
3035	Ditch	E2-E3	NNW-SSE	? x 0.68 x 0.24	Linear	U-shaped	Concave
3042	Ditch	E3-F3	NNW-SSE	? x 1.22 x 0.35	Linear	Steep	Flattish
3044	Ditch	F3	NNW-SSE	? x 0.47 x 0.23	Linear	Moderate	Concave
3052	Gully	F3	E-W	? x 0.34+ x 0.14	Linear	Shallow	Flat
3081	Gully	F3	N-S	6.86 x 1.10 x 0.22	Linear	Gentle	Concave
3134	Ditch	E3	ENE-WSW	2.70 x 0.24 x 0.11	Linear	U-shaped	Concave

Table 55: Roman Sub-Phase 3 ditches and gullies (south-east corner, western quadrant)

Eight closely associated, partially intercutting, Roman Sub-Phase 3 ditches and gullies were identified in the far south-eastern corner of the western quadrant (Table 55; Fig. 82). Six of these obeyed similar north to south/ north-north-west to south-south-east alignments; two within this sub-group, F3033 (Grid Square E2-E3) and F3042 (Grid Square E3-F3), likely represented recuts of earlier Roman Sub-Phase 3 features F3031 (Grid Square E3) and F3035 (Grid Square E2-E3; respectively). A single, comparatively isolated Gully (F3575; Table 56) was also found approximately 12m north-east of the 'clustered' Roman Sub-Phase 3 ditches and gullies in this area.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
3575	Gully	G3-G4	c. N-S	5.85+ x 0.30 x 0.11	Linear	Moderate	Concave

Table 56: Isolated Gully F3575 (western quadrant)

Ditches F3035 (Grid Square E2-E3) and F3042 (Grid Square E3-F3) were the earliest of the above Roman Sub-Phase 3 features. F3035 was cut into Natural L1002 and was truncated to the north by Ditch F3042, which was in turn cut by Roman Sub-Phase 3 Ditch F3134 (Grid Square E3) and Roman Sub-Phase 4 Pit F3037 (Grid Square E3). The southern terminus of Ditch F3134 was truncated by north to south aligned Roman Sub-Phase 3 Ditch F3033 (Grid Square E2-E3), which also cut the fill of Roman Sub-Phase 3 Ditch F3031 (Grid Square E3). Ditch F3044 (Grid Square F3) and Gullies F3052 (Grid Square F3) and F3081 (Grid Square F3) were located immediately to the east of this intercutting 'cluster' of features. F3052 and F3081 were both truncated by Roman Sub-Phase 4 Ditch F3027 (Grid Square E2-F3 and E4-F3), while the southern extent of F3044 was cut by Roman Sub-Phase 5 Gully F3046 (Grid Square E2-F3); Gully F3081 cut Roman Sub-Phase 2 Gully F3029 (Grid Square E4-F3).

The purpose of the Roman Sub-Phase 3 ditches and gullies in the far south-east of the western quadrant was difficult to determine due to the small size of the excavated area and the truncated nature of most of these features. It is possible that Ditches F3031 (Grid Square E3) and F3035 (Grid Square E2-E3), and subsequent recuts F3033 (Grid Square E2-E3) and F3042 (Grid Square E3-F3), formed some manner of boundary, though this remains tentative. None of these features shared alignments with any Roman Sub-Phase 3 features further to the north. Roman Sub-Phase 3 Pit F3050 (Grid Square F3; see below) was directly adjacent to the northern terminus of Ditch F3044 and it is likely that these features were contemporary. Unfortunately, none of the Roman Sub-Phase 3 ditches and gullies in this part of the site yielded pottery and, as a group, they were tentatively phased according to their stratigraphic relationships.

Gully F3575 was identified within the eastern half of Area 7 (Grid Square G3-G4). This feature cut Period I Gully F3572 and was later truncated by Roman Sub-Phase 5 Gully F3579. Although F3575 yielded no finds, its alignment loosely reflected that of Roman Sub-Phase 3 Gully F3081, c. 12m to the south-west, and the individual fills of both features were not dissimilar. As such, F3575 was tentatively assigned to this sub-phase.

The Roman Sub-Phase 3 Pits

Of the 36 pits assigned to Roman Sub-Phase 3, 15 appeared to form three distinct feature clusters (Figs. 86-88). The remaining Roman Sub-Phase 3 pits were more dispersed, though several were loosely associated and/ or were situated close to contemporary ditches and/ or gullies (see below).

The Roman Sub-Phase 3 pit clusters

The largest Roman Sub-Phase 3 pit cluster comprised six individual features (Table 57) and was located in the south-eastern corner of the northern site quadrant (Fig. 86). This cluster also contained the largest (in plan) of the grouped Roman Sub-Phase 3 pits. Morphologically, these features were comparable, being mostly oval and shallow with moderately sloping sides and flattish bases. However, Roman pottery was only present in two of the pits, F4635 (L4636) and F4651 (L4652), and only three pits yielded finds of any description. The combined finds assemblage comprises four sherds (66g) of Roman pottery (not closely datable), animal bone (5g), CBM (50g) and 8g of residual struck flint. An environmental sample from the fill of Pit F4635 (L4636) yielded nothing of significance. Although functionally ambiguous, this pit cluster was truncated by similar unphased features (Pits F4637, F4641 and F4645), possibly indicating some degree of continuity of land use in this part of the site. However, the date of the later features remains uncertain.

Feature	GS	Size (m)	Plan	Profile	Base
4635	U14-U15	1.64 x 1.33 x 0.22	Oval	Moderate	Flattish
4639	U14	2.56 x 1.32 x 0.32	Oval	Moderate	Flattish
4643	U14	1.80 x 1.44 x 0.47	Oval	Moderate	Concave
4647	U14-U15	3.30 x 1.48 x 0.18	Oval	Gentle	Flattish
4649	U14	0.89 x 0.83 x 0.12	Oval	Gentle	Flattish
4651	U14-U15	1.84 x 1.68 x 0.26	Sub-circular	Moderate	Flattish

Table 57: Roman Sub-Phase 3 Pit Cluster (1 of 3)

A cluster of five Roman Sub-Phase 3 pits (Table 58), two of which were intercutting, was identified immediately to the south-west of Roman Sub-Phase 3 Ditch F3453 (Grid Square L12-P8) in the south-western quadrant (Fig. 87). Bar minor size variation, the pits forming this cluster were morphologically similar and their individual fills were practically identical. Three of these pits yielded finds though Roman pottery (four sherds; 23g) was only present in Pit F4397; this material was not closely datable. Pit F4397 also yielded 38g of animal bone, 54g of burnt flint and 9g of residual struck flint. Burnt and residual struck flints comprise the only finds from Pit F4405, while F4395 contained only 126g of animal bone. The combined animal bone assemblage from this pit cluster (164g) includes the remains of cattle, dog and large terrestrial mammal; many of the large terrestrial mammal fragments from Pit F4395 appear to be associated and may in fact be cattle (*Cussans pers. comm.*). Although probably associated with the complex of Roman Sub-Phase 3

linear features in the southern part of the site, little can be said regarding the function(s) of these Pits. They did not stratigraphically relate to any other features and were (tentatively) assigned to Roman Sub-Phase 3 based solely on their location in respect to Ditch F3453.

Feature	GS	Size (m)	Plan	Profile	Base
4395	M11	1.00 x 0.90+ x 0.28	Sub-oval	Gentle to moderate	Flat
4397	M11	1.50 x 2.08 x 0.36	Sub-oval	Gentle to moderate	Flattish
4399	L11-M11	0.74 x 0.78 x 0.14	Sub-oval	Moderate	Flat
4401	M11	0.88 x 0.95 x 0.22	Sub-oval	Gentle to moderate	Flat
4405	M11	0.65 x 0.66 x 0.16	Sub-oval	Gentle to moderate	Flat

Table 58: Roman Sub-Phase 3 Pit Cluster (2 of 3)

The smallest Roman Sub-Phase 3 pit cluster comprised four individual features (Table 59), two of which, F4256 and F4477 (Grid Square K9), were recorded in section only (Fig. 88). Both F4232 and F4477 (Grid Square K9) were truncated by the eastward 'return' of Roman Sub-Phase 3 Ditch F4383 (Grid Square J10-K9), while the former truncated the fill of Roman Sub-Phase 3 Ditch F4104 (L4105; Grid Square J8-L10). The easternmost feature within this cluster, Pit F4256, was entirely truncated by Roman Sub-Phase 4 Ditch F4244 (Grid Square K9-L10). Although they varied in size, the pits forming this cluster displayed little morphological variation. Each also contained just a single fill, though these were dissimilar in terms of colour and composition. Only two of these features yielded finds; the largest assemblage, from F4479 (L4480) comprises two sherds (45g) of 2nd century pottery and 12g of animal bone. Although unquestionably associated with Roman Sub-Phase 3 linear features in this part of the site, it is difficult to assign a function to these pits based on so little cultural material.

Feature	GS	Size (m)	Plan	Profile	Base
4232	K9	1.35 x 0.78+ x 0.47	Oval	Very steep	Concave
4256	K9	c. 2.73 x 0.85+ x 0.36+	Sub-rectangular	Steep	Flattish
4477	K9	1.00 x 0.53 x 0.38	Oval	Steep	Concave
4479	K9	2.10 x 0.50 x 0.21	Sub-oval	Steep	Concave

Table 59: Roman Sub-Phase 3 Pit Cluster (3 of 3)

The loosely grouped Roman Sub-Phase 3 pits

The area of the northern quadrant immediately to the east and south-east of the largest Roman Sub-Phase 3 pit cluster (see above) contained a further, loosely associated group of six Roman Sub-Phase 3 pits (Table 60; Figs. 89-90). These were distributed across an area of some 252m² on either side of Roman Sub-Phase 5 Ditch F3738 (Grid Square U15-V14) and Gully F3801 (Grid Square V14-X12). Although broadly distributed, most of the pits within this group were morphologically similar and contained comparable fills (bar minor variation in colour and compaction). The only pit to produce significant finds was F3734 (Grid Square V15). The assemblage comprises ten sherds (256g) of late 2nd/ early 3rd to 4th century pottery, animal bone (982g) and 116g of CBM. The faunal assemblage comprises elements of horse and large terrestrial mammal, and includes evidence of canid gnawing (Cussans 2012). The only other feature to yield finds of any kind (one sherd of Roman pottery weighing 12g) was F4807. The majority of pits within this 'cluster' were tentatively assigned to Roman Sub-Phase 3 on stratigraphic grounds.

Feature	GS	Size (m)	Plan	Profile	Base
3732	U15-V15	2.21 x 1.93 x 0.51	Sub-circular	Moderate to steep	Concave
3734	V15	3.00 x 2.36 x 0.94	Sub-circular	Steep	Concave
3879	W14	1.50 x 1.50 x 0.54	Sub-circular	Gentle	Concave
3881	W14	2.20 x 1.90 x 0.54	Sub-circular	Steep	Flattish
4803	V14	1.14 x 0.94 x 0.38	Sub-oval	Steep	Flat
4807	V14	3.34 x 2.02 x 0.43	Sub-rectangular	Steep	Flattish

Table 60: Loosely grouped Roman Sub-Phase 3 pits

The dispersed Roman Sub-Phase 3 Pits

The 15 remaining Roman Sub-Phase 3 pits (Table 61) were widely dispersed across the site. All but three of these, F3263 (Grid Square Q16), F3618 (Grid Square Q15) and F3752 (Grid Square S15-T15), were close to one or more Roman Sub-Phase 3 ditches/ gullies, while the remainder were either relatively or wholly isolated. Datable pottery assemblages were yielded by five of these pits, collectively spanning the early 2nd to 4th centuries AD. The remaining pits were phased according to their stratigraphic relationships and/ or location in respect to datable Roman Sub-Phase 3 features. Besides relatively modest quantities of animal bone, no finds of any particular interest were encountered. Many of the dispersed Roman Sub-Phase 3 pits appear to have been used for small-scale refuse disposal, though six, F2509 (Grid Square Q13-Q14), F3025 (Grid Square R19), F3263 (Grid Square Q16), F3293 (Grid Square S17), F3618 (Grid Square Q15) and F3752 (Grid Square S15-T15) were devoid of finds.

Feature	GS	Size (m)	Plan	Profile	Base
1789	N17	1.62 x 1.55 x 0.50	Circular	Irregular	Concave
1946	M16	2.30 x 1.15 x 0.46	Sur-rectangular	Steep	Flattish
2509	Q13-Q14	0.75 x 0.17 x 0.15	Oval	V-shaped	Concave
3025	R19	0.65 x 0.47 x 0.19	Oval	Gentle	Unknown
3050	F3	0.53 x 0.35 x 0.36	Oval	Steep	Concave
3160	Q17	0.90+ x 0.18+ x 0.31	Oval	Moderate	Concave
3228	R17	1.80 x 1.80 x 1.30	Sub-Circular	Steep	Flat
3263	Q16	0.38+ x 0.22+ x 0.30+	Oval	Very steep	Concave
3293	S17	0.32 x 0.10 x 0.33	Sub-Circular	Gentle	Concave
3471	N9	0.20+ x 0.50 x 0.16+	Sub-circular	Steep	Concave
3618	Q15	1.36 x 1.36 x 0.26	Sub-circular	Steep	Rounded
3743	N9	5.02 x 2.20 x 0.41	Sub-Circular	Steep	Irregular
3752	S15-T15	2.20 x 1.99 x 0.67	Square	Steep	Concave
4196	T8	0.60 x 0.15 x 0.20	Oval	Steep	Concave
5049	U12	1.55 x 1.22 x 0.21	Sub-oval	Gentle	Concave

Table 61: Dispersed Roman Sub-Phase 3 pits

Several of the dispersed Roman Sub-Phase 3 pits displayed possible relationships with enclosure systems in the northern site quadrant. Pit F1789 (Grid Square N17) appeared to be associated with either the Roman Sub-Phase 3 Enclosure System 1 or 2. This pit cut the fill of heavily truncated Roman Sub-Phase 2 Gully F1792 (Grid Square N17) and was in turn largely truncated by Roman Sub-Phase 3 Ditch F1532 (Grid Square L18-P16). It is possible therefore that Pit F1789 occupied a central location within Enclosure 15. This feature yielded two sherds (115g) of early/ mid-2nd to 3rd century pottery, CBM (171g) and animal bone (195g).

Roman Sub-Phase 3 Pit F3743 (Grid Square S16-T16) was also identified within the northern quadrant and was possibly related to Roman Sub-Phase 3 Enclosure System 1. This shallow feature was truncated along its south-western edge by broadly contemporary Roman Sub-Phase 3 Gully F3174 (Grid Square R18-T16). No further, similarly dated features were present within the immediate vicinity to which

F3743 may have been related. Finds from F3743 include eight sherds (87g) of late 2nd to 4th century pottery, animal bone (486g) and CBM (120g). Fill L3745 of this pit also yielded a complete copper alloy finger ring, identical to an example from Colchester (Crummy 1983, 49, fig. 50.1770) with continuous transverse groove decoration to the external surface (see Cooper this report – *The small finds*). An unstratified copper alloy ring of smaller diameter (SF117) was also recovered from Grid Square U7, although is unlikely to comprise an item of jewellery (*ibid.*).

Pits F3025 (Grid Square R19) and F3160 (Grid Square Q17) appeared similarly associated with Roman Sub-Phase 3 Enclosure System 1. The former cut the fill of Roman Sub-Phase 2 Gully F2711 (Grid Square P19-R19) and was truncated in turn by Roman Sub-Phase 3 Ditch F2913 (Grid Square R17-R19). This feature was devoid of finds. Pit F3160 was cut into the upper part of Fill L1706 (F1705; Roman Sub-Phase 2 Enclosure System 3) and was also devoid of finds.

Pit F3228 (Grid Square R17) was found within the confines of Enclosure 16 (Roman Sub-Phase 3 Enclosure System 1) adjacent to Gully F3174 (Grid Square R18-T16); Roman Sub-Phase 4 Gully F3170 (=3234; Grid Square R17-T19) was located immediately to the south. During excavation, this feature was thought to represent a prehistoric grain storage pit, based mostly on its size and shape. The idea that large cylindrical Iron Age pits were predominantly used for grain storage has persisted since the 1940's (Cunliffe 1992, 70). However, finds from this feature comprise eight sherds (64g) of Roman pottery, collectively spanning the early 2nd to late 2nd/ early 3rd centuries, animal bone (196g) and CBM (592g). In light of this tightly datable assemblage, Pit F3228 may have been a refuse pit directly associated with Enclosure 16, or perhaps simply an 'open' feature into which debris was casually discarded over time. The finds from F3228 need not reflect its primary function.

Pit F3293 (Grid Square S17) may also have been associated with Roman Sub-Phase 3 Enclosure System 1. This feature was located c. 2.3m to the east of Pit F3228 (Grid Square R17), adjacent to Gully F3238 (Grid Square R18 - S17). This pit was partially truncated to the south-east by Roman Sub-Phase 4 Gully F3154 (Grid Square R17-S18) and was devoid of finds. As such, the exact date of this feature remains uncertain.

Pit F1946 (Grid Square M16) appeared tentatively associated with Roman Sub-Phase 3 Enclosure System 3. This feature truncated the south-western part of curvilinear Ditch F2009 (Grid Square M16; Roman Sub-Phase 3 Enclosure System 2) and was subsequently truncated by Roman Sub-Phase 4 Boundary Ditch F1424 (=1765=1888; Grid Square K17-M15 and M15-P19). The lower two fills of this sub-rectangular pit (L1947 and L1948) yielded three sherds (27g) of Roman pottery (not closely datable), animal bone (25g), CBM (316g), and Fe fragments (43g).

Two dispersed Roman Sub-Phase 3 pits, F4196 (Grid Square T8) and F5049 (Grid Square U12), were located in the south-eastern site quadrant. Pit F4196 lay c. 1m north-east of Roman Sub-Phase 3 Gully F4198 (Grid Square T7-T8). These neighbouring features displayed comparable fills (bar minor colour variation), and F4196 was (tentatively) assigned to Roman Sub-Phase 3 based on this similarity and its location in respect to F4198. The only finds from F4196 comprise 228g of animal bone. Pit F5049 was located c. 1.7m north-west of Roman Sub-Phase 3

Gully F4875 (Grid Square T11-V12) and truncated Roman Sub-Phase 2 Ditch F4964 (Grid Square U11-U12). This pit was truncated in turn by Roman Sub-Phase 4 Ditch F4959 (Grid Square T11-U12). F5049 yielded just 111g of animal bone and was tentatively phased based on its stratigraphic relationships.

Pit F3471 (Grid Square N9) was found adjacent to Roman Sub-Phase 3 Gully F3477 in the south-western quadrant. Like Pits F4196 (Grid Square T8) and F5049 (Grid Square U12), this feature yielded only a modest quantity of animal bone (263g). F3471 was tentatively phased based on its location in respect to nearby Roman Sub-Phase 3 Gully F3477.

Pit F3050 (Grid Square F3) was the only such dispersed Roman Sub-Phase 3 feature identified in the western quadrant. This pit lay adjacent to the northern terminus of Roman Sub-Phase 3 Gully F3044 (Grid Square F3); these features contained identical fills. In addition to this relationship, Pit F3050 yielded two sherds (10g) of mid-2nd to 4th century pottery. Other finds from this feature comprise 61g of animal bone.

The Roman Sub-Phase 3 postholes/ stakeholes

Of the 18 postholes/ stakeholes assigned to Roman Sub-Phase 3, the vast majority formed a distinctive cluster in the north-west of the northern quadrant (Grid Square M18). Two stakeholes, F4262 and F4283 (Grid Square K9), formed a possible feature pair, truncated by Roman Sub-Phase 4 Gully F4238 (Grid Square K9-L10). The remaining Roman Sub-Phase 3 postholes were more dispersed.

The Roman Sub-Phase 3 posthole cluster

The main body of this cluster, comprising 11 individual features (Table 62), was roughly aligned north-west to south east, with one possible outlier, F1976 (Grid Square M18) recorded a short distance to the south-west (Fig. 91). It is possible that the formal layout of these features marked a post-built structure, only one edge of which was fully represented. However, the constituent features did not contain any finds suggestive of activity (occupation, industrial, etc.) that might have occurred within any putative structure that they might have represented. Nonetheless, the respective fills of all 12 features were identical, strongly signifying their contemporaneity regardless of function. These features were tentatively assigned to Roman Sub-Phase 3 on stratigraphic grounds.

Feature	GS	Size (m)	Plan	Profile	Base
1950	M18	0.98+ x 0.20 x 0.28	Circular	Steep	Unknown
1952	M18	0.98+ x 0.17 x 0.06	Circular	U-shaped	Concave
1954	M18	0.98+ x 0.13 x 0.05	Circular	U-shaped	Concave
1956	M18	0.98+ x 0.10 x 0.05	Circular	U-shaped	Concave
1958	M18	0.98+ x 0.37 x 0.20	Square	Steep	Concave
1960	M18	0.98+ x 0.40 x 0.10	Circular	Irregular	Concave
1962	M18	0.98+ x 0.06 x 0.10	Circular	U-shaped	Concave
1964	M18	0.98+ x 0.32 x 0.15	Circular	U-shaped	Concave
1966	M18	0.98+ x 0.29 x 0.25	Circular	Steep	Concave
1968	M18	0.98+ x 0.29 x 0.09	Circular	U-shaped	Concave
1970	M18	0.98+ x 0.10 x 0.20	Circular	Steep	Concave
1976	M18	0.98+ x 0.22 x 0.40	Circular	Vertical	Unknown

Table 62: Roman Sub-Phase 3 posthole cluster

The Roman Sub-Phase 3 stakehole pair

Both features comprising this pair (Table 63) were wholly truncated by Roman Sub-Phase 4 Ditch F4244 (Grid Square K9-L10). Stakeholes F4262 and F4283 (Grid Square K9) were comparable in plan, size and profile, and contained similar sterile fills. It is possible that these features related in some way to nearby Roman Sub-Phase 3 Gully F4069 (Grid Square J9-L9), immediately to the north, though the veracity and nature of this relationship remains uncertain.

Feature	GS	Size (m)	Plan	Profile	Base
4262	K9	0.10 x 0.10 x 0.07	Oval	Very steep	Concave
4283	K9	0.10 x 0.12 x 0.11	Sub-oval	Very steep	Concave

Table 63: Possible Roman Sub-Phase 3 stakehole pair (1 of 1)

Dispersed Roman Sub-Phase 3 postholes

The remaining Roman Sub-Phase 3 postholes (Table 64) were isolated from similar contemporary features. F3554 (Grid Square R8-S8; south-western quadrant) was truncated by Roman Sub-Phase 5 Ditch F3441 (Grid Square P9-S7). This posthole was located within the confines of a possible large squared enclosure, principally delineated by Ditch F3502 (Grid Square Q8-R9) and (possibly) Ditch F3446 (Grid Square P8-R6). The fill of this feature did not contain finds and its phasing, based on the above stratigraphic relationship, remains tentative. Isolated Posthole F3775 (Grid Square T17) was similarly truncated, in this case by Roman Sub-Phase 4 Pit F3773 (Grid Square T16-T17). F3775 was cut into Natural L1002 and was devoid of finds; once again, the tentative phasing of this posthole was stratigraphically based.

Feature	GS	Size (m)	Plan	Profile	Base
3554	R8-S8	0.50 x 0.23 x 0.50	Circular	Steep to vertical	Rounded
3775	T17	? X 0.22 x 0.08	Circular	Steep	Concave
4548	L10	0.25 x 0.10 x 0.20	Ovoid	Steep	Concave
4655	S15	? X 0.24 x 0.08	U-shaped	Steep	Concave

Table 64: Dispersed Roman Sub-Phase 3 postholes

The final two Roman Sub-Phase 3 postholes were less isolated. F4548 (Grid Square L10) was found c. 2.5m east of Roman Sub-Phase 3 Ditch F4104 (Grid Square J8-L10) and c. 4m north-west of Roman Sub-Phase 3 Gully F4416 (Grid Square L9-L10) in the south-western quadrant. This posthole was recorded in section only, having been entirely truncated by Roman Sub-Phase 6 Pit F4554 (Grid Square L10), and was devoid of finds. Posthole F4655 (Grid Square S15) was located immediately to the east of Roman Sub-Phase 3 Ditch F4653 (Grid Square S14-S15) in the northern quadrant. This feature was cut by Roman Sub-Phase 4 Ditch F2503 (=3674; Grid Square R14-T15) and was again devoid of finds. Both F4548 and F4655 were tentatively phased based on stratigraphic data and their locations in respect to other Roman Sub-Phase 3 features.

The Roman Sub-Phase 3 funerary evidence

Grave Cut F3289 (Grid Square R18-S18) was found in close proximity to Ditch F3238 (Roman Sub-Phase Roman Sub-Phase 3 Enclosure System 1) in the northern quadrant, but displayed no primary stratigraphic relationship with any Roman Sub-Phase 3 feature (Fig. 92). Also in the immediate vicinity of the grave was a cluster of 13 undated pits and postholes, one of which (Posthole F3346; Grid

Square R18) truncated F3289. The grave cut was irregular/ sub-rectangular in plan with a shallow irregular profile, and contained the poorly preserved remains of a single individual (SK9; Plate 3). The skeleton was oriented east-north-east to west-south-west, in an extended supine position, though the orientation of the skull was impossible to determine. The arms were positioned straight at the sides although their exact position was difficult to establish due to poor preservation; they may have been folded across the pelvic region. Both legs were extended with the knees bent slightly to the right. The only (possible) grave goods associated with the burial were three sherds (11g) of coarse Roman grey ware.

Roman Sub-Phase 3 Spread L5152

Spread L5152 (Grid Square U9; Table 65) was the only one of its type attributed to Roman Sub-Phase 3. This context was contained by (likely natural) Hollow F5151 and was situated c. 6.5m north-east of Roman Sub-Phase 3 Ditch F5188 (Grid Square U9) in the south-east quadrant. L5152 was heavily truncated to the north-east by Roman Sub-Phase 4 Ditch F5009 (Grid Square T11-V9) and to the south-east by Roman Sub-Phase 5 Ditch F3549 (=5107; Grid Square Q5-W11); this context sealed the upper fill of Roman Sub-Phase 2 Gully F5117 (=5148; GS U9 - V9). Although stratigraphically secure, the relationship of L5152 with nearby Roman Sub-Phase 3 features was difficult to determine; the paucity of finds from this layer does not suggest the 'spreading' of midden-rich material and it may simply have constituted a natural silty sand accumulation incorporating more 'casually' discarded or surface material.

Context	Description	GS	Pottery	CBM	Animal Bone	Other Finds
5152	Spread	U9	6 sherds (57g)	-	31g	Slag (223g)

Table 65: Roman Sub-Phase 3 Spread L5152

Focuses of Roman Sub-Phase 3 activity

Within Roman Sub-Phase 3, the greatest weight of CBM was encountered in the northern quadrant of the site with particular concentrations (>2000g) recovered from Grid Squares K15-K16, N15 and R16 (Fig. 93). Several grid squares in the northern quadrant also yielded weights of between 1001g and 2000g. CBM was more sparsely distributed in the other site quadrants and was only present in modest quantities. Once again, it is possible that this material derived from structures in the local Romano-British landscape, although no contemporary structural evidence was encountered within the confines of the excavated area. None of the CBM encountered comprised *in situ* collapse material (see Keevill 1995) and, as such, its distribution is of limited use in defining specific focuses of Roman Sub-Phase 3 activity. In contrast, the majority of CBM encountered at the Maltings site was directly relatable to the use and collapse/ demolition of two large, aisled buildings (Anderson 2004, 42), whilst most of the recorded mortar and plaster at that site represented an imported hardcore floor associated with the later of the structures (*ibid.* 43).

When plotted (Fig. 94), weights of recovered Roman Sub-Phase 3 pottery at the former Smoke House Inn show an even distribution across the majority of the site. Only one grid square (P14) yielded pottery in excess of 2001g, mostly from Fill L2323 of Gully F2322 (=3236=3603), Roman Sub-Phase 3 Enclosure System 4.

Overall, this feature yielded 159 sherds (3819g) of pottery (Peachey this report – *The prehistoric and Roman pottery*). The pottery group from Roman Sub-Phase 3 Enclosure System 4 also contained a significant diagnostic element of late 2nd to early 3rd century AD vessels (*ibid.*), helping to closely date this third sub-phase of Roman activity.

The nature of Roman Sub-Phase 3 activity

The large-scale intensification of settlement activity witnessed during Roman Sub-Phase 2 appears to have persisted throughout the late 2nd to early 3rd century. Once more, the northern quadrant of the site was dominated by a succession of three substantial, ditched enclosure systems, though these were more clearly defined than those of Roman Sub-Phase 2. An escalation of activity was also apparent in the south-eastern and south-western quadrants, where surviving ditches and gullies seemed to represent at least 2 stratigraphically distinct enclosure systems, although these were largely obscured by previously excavated site MNL 608 and an area of tree preservation. However, the main features of the stratigraphically earlier system (Roman Sub-Phase 3 Enclosure System 4) appeared to respect the alignment of a Roman Sub-Phase 2 double-ditched boundary chiefly defined by Ditches F4592 (Grid Square S14-U15) and F4598 (Grid Square R13-S14), thus strongly suggesting the long-term continuity of certain landscape features/ boundary alignments.

Approximately fifty per cent of the Roman Sub-Phase 3 pits identified conformed to loose groupings and several were almost certainly used for refuse disposal. Whether or not this was their primary function remains uncertain however. The majority of postholes/ stakeholes in this sub-phase conformed to a large, possibly structural grouping, though none of the 11 constituent features yielded finds of any description.

The only Roman Sub-Phase 3 spread (L5152) comprised a discrete area of silty sand. Finds are sparse from this context; a fact in stark contrast to the majority of earlier Roman layers and spreads at the site. L5152 did not resemble the purposeful spreading of midden-rich material, but rather a natural surface accumulation.

One context of particular note was Grave Cut F3289 (Grid Square R18-S18). This feature contained the poorly preserved remains of a single human individual (SK9) accompanied by three sherds of coarse Roman grey ware. Although stratigraphically isolated from other Roman Sub-Phase 3 features, this grave was perfectly aligned with the north-north-east to south-south-west section of Roman Sub-Phase 3 Gully F3238 (Grid Square R18-S17), c. 1.3m to the north-west, and was most likely placed with a consideration for this boundary.

Like the earlier Romano-British period, the ecofactual evidence from Roman Sub-Phase 3 indicated a mixed agricultural economy, probably supported by the hunting of game and gathering of uncultivated foodstuffs. Possible evidence of the latter includes the remains of wild strawberry (*Fragaria* cf. *vesca*) from Gully F2913 (Summers this report – *The charred plant macrofossils and charcoal*). Environmental sampling also recovered evidence of a fodder crop – including possible common vetch (*Vicia* cf. *sativa*) – from Ditch F1423 (*ibid.*).

Once again cattle dominated the animal bone assemblage, with adult and juvenile specimens both present (Curl and Cussans this report – *The animal bone*). The remains of pig and sheep/ goat were also present but in lesser numbers (*ibid.*). Of particular interest are the remains of two dogs – one medium-sized and one small – that both display signs of rickets; the disease may have resulted from indoor breeding or poor nutrition early in life (*ibid.*).

4.2.4 Roman Sub-Phase 4 (early to mid-3rd century AD)

Summary

Roman Sub-Phase 4 at the former Smoke House Inn spanned the early to mid-3rd century AD. The northern site quadrant was once again dominated by a system of rectilinear, ditched enclosures, numbering at least seven, whilst linear features were much sparser in the south-eastern and south-western quadrants (Fig. 95). It is likely, however, that elements of Roman Sub-Phase 3 Enclosure Systems 4 and 5 (in the southern part of the site) remained at least partially 'open' throughout Roman Sub-Phase 4. This sub-phase also contained the only truly 'Romanised' structural evidence, comprising the remains of a possible aisled building (Structure 3) broadly contemporary to those excavated at the adjacent Maltings (Bales 2004, 11ff). Although the 'interior' of Structure 3 had been severely truncated by later activity, it is likely to have comprised an ancillary/ agricultural building of modest construction.

The Roman Sub-Phase 4 ditches and gullies

Roman Sub-Phase 4 Enclosure System 1

This single system of Roman Sub-Phase 4 enclosures traversed the northern site quadrant (Figs. 96-106). Several, largely rectilinear enclosures were represented, delineated by a clear grid of interleaved ditches and gullies (Table 66). The largest of these, Enclosure 21, extended beyond the excavation to the north-west and was principally defined by Ditches F1424 (=1765=1888; Grid Square K17-M15 and M15-P19), F1735 (Grid Square N19-R17) and F2631 (Grid Square N20-R17). The exposed internal portion of this enclosure measured some 697m² but no entrance was visible within the excavated area. Boundary Ditch F1424 (=1765=1888) yielded the largest finds assemblage of this group, including 115 sherds (1895g) of Roman pottery (collectively spanning the 1st to 4th centuries AD), CBM (7638g), animal bone (4067g) and mortar (981g), in addition to smaller quantities of shell (9g), plaster (17g), Fe fragments (231g) and residual struck flint (67g). The source of the latter remains uncertain, though this feature intercut numerous earlier Roman features. The faunal assemblage from F1424 (=1765=1888) comprises elements of cattle, horse, sheep/ goat, pig, large terrestrial mammal and medium terrestrial mammal, and includes evidence of butchery, canid gnawing and possible rodent gnawing (Cussans 2012). F1424 (=1765=1888) appeared to constitute a recut of earlier Roman Sub-Phase 2 Boundary F1828 (Grid Square N18; see above).

Ditch F1370 (Grid Square K15-L16; Fig. 96) cut the north-west to south-east section of F1424 (=1765=1888) and ran south-westwards. The south-westernmost extent (possible terminus) of this feature was partially obscured by the excavation edge. Similarly, north-west to south-east aligned Ditch F1796 (Grid Square L15-N14) cut

the exposed southern corner of F1424 (=1765=1888) and effectively continued the alignment of this feature for some 15.5m before turning gently to the east at its south-eastern end. It is possible therefore, that two further enclosures segregated by the line of Ditch F1370 existed to the south-west of F1424 (=1765=1888), slightly post-dating Enclosure 21. However, much of the interiors of both ?enclosures were beyond the excavation limits.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1370	Ditch	K15-L16	NE-SW	11.15 x 0.70 x 0.68	Linear	U-shaped	Concave
1424=1765=1888	Ditch	K17-M15 & M15-P19	NW-SE & NE-SW	67.00 x 2.30 x 0.65	Linear	Steep	Concave
1735	Ditch	N19-R17	NW-SE	5.93 x 1.26 x 0.58	Linear	Moderate	Concave
1796	Ditch	L15-N14	NW-SE	19.59+ x 1.50 x 0.58	Linear	Moderate	Flat
1869	Gully	P18-Q19	NE-SW	9.50+ x 0.87 x 0.69	Linear	Steep	Concave
1921	Ditch	P16	NE-SW	3.51 x 1.66 x 0.50	Linear	Steep	Flat
1929	Ditch	M16-P15	NW-SE	16.59 x 1.75 x 0.83	Linear	U-Shaped	Concave
1992=2590=2950	Ditch	Q17-S20	c. NE-SW	39.50 x 2.10+ x 0.79	Linear	Steep	Concave
2567=2919=3150	Ditch	P19-Q20, Q20-R19 & R19-Q18	Curvilinear	38.71 x 1.37 x 0.54	Linear	Gentle	Concave
2575	Ditch	P21-T17	NW-SE	42.25 x 2.43 x 0.65	Linear	Gentle	Concave
2631	Ditch	N20-R17	NW-SE	40.94 x 1.50 x 0.68	Linear	Moderate	Concave
2952	Gully	R20-T18	NW-SE	3.12 x 1.48 x 0.48	Linear	Steep	Flattish
3154	Gully	R17-S18	c. NE-SW	15.83 x 1.65 x 0.55	Linear	Gentle	Concave
3170=3234	Gully	R17-T19	c. NE-SW	27.5 x 1.46 x 0.57	Linear	Gentle	Concave

Table 66: Principal features forming Roman Sub-Phase 4 Enclosure System 1

Ditches F1735 (Grid Square N19-R17) and F2631 (Grid Square N20-R17) continued to the south-east and, with F1424 (=1765=1888; Grid Square K17-M15 and M15-P19), F1929 (Grid Square M16-P15) and the south-westernmost section of F1992 (=2590=2950; Grid Square Q17-S20), defined another possible enclosure (Enclosure 22; Fig. 96). The interior of this enclosure measured approximately 501m² but, once again, lacked a clearly definable entrance. The discontinuous south-eastern boundary of Enclosure 22 may have incorporated truncated Ditch F1921 (Grid Square P16) although this cannot be proven. The interior of the enclosure was partially traversed by F1978 (Grid Square M16-P18), an east-north-east to west-south-west aligned ditch truncated by the north-western section of Ditch F1929 (Grid Square M16-P15). Ditches F1929, F1978 and F1992 (=2590=2950) yielded relatively large artefactual assemblages with noteworthy quantities of pottery (1203g) and CBM (2776g) being recovered from Ditch F1929 (L1930, L1941 and L1985). The secondary fill of this feature (L1985) also contained SF18, part of a 'factory lamp' of a type (Loeschcke type X) that was produced in this fabric in kilns at Northgate House, London (see Peachey this report – *The prehistoric and Roman pottery*). Also of note is a complete copper alloy nail cleaner of Crummy Type 2a (SF69) from Fill L2591 of Ditch F1992 (=2590=2950) (see Cooper this report – *The small finds*). A similar, probably 1st or 2nd century, example was recovered from Colchester (*ibid.*). A comparable, unstratified nail cleaner (SF125) was also recovered from the site. Other finds include 193g of plaster from F1929, and 68g of possible pumice from F1992 (=2590=2950; L1993).

North-west to south-east aligned Ditch F2631 helped to define a further sub-rectangular enclosure in the northern quadrant of the site (Enclosure 23; Fig. 96). This enclosure was incompletely partitioned by north-east to south-west aligned Gully F1869 (Grid Square P18-Q19; containing trace amounts of pottery and animal bone), and was subsequently fully divided by the insertion of curvilinear Ditch F2567 (=2919=3150; Grid Square P19-Q20, Q20-R19 and R19-Q18). This enclosure also

comprised the north-eastern continuation of Ditch F1992 (=2590=2950) and north-west to south-east aligned Ditch F2575 (Grid Square P21-T17). In its original format, the interior of Enclosure 23 measured in excess of 420m², while the secondary area encircled by F2567 (=2919=3150; Enclosure 23a) measured c. 156m² (Fig. 96). Finds from Ditch F2575 include 66 sherds (1055g) of Roman pottery, including 30 sherds of 2nd to early/ mid-3rd century date, CBM (558g) and a considerable quantity of animal bone. The faunal assemblage comprises elements of cattle, horse, sheep/ goat, red deer, large terrestrial mammal and medium terrestrial mammal, and includes some evidence of canid gnawing (Cussans 2012). Fill L3151 of Ditch F2567 (=2919=3150) yielded one find of particular note: a possible weight formed from a looped piece of lead (SF54; 48g) (Cooper this report – *The small finds*).

Approximately 9-13.5m to the south-east of Ditch F1992 (=2590=2950), consecutively cut Gullies F3154 (Grid Square R17-S18) and F3170 (=3234; Grid Square R17-T19) were recorded traversing the gap between Ditch F2575 (Grid Square P21-T17) and the south-eastern terminus of Ditch F2631 (Grid Square N20-R17). The resulting enclosure (Enclosure 24) had an internal area of c. 154m², though no entrance was visible (Fig. 96).

To the north-east of Ditch F2575, three further possible enclosures were defined by the north-eastward continuations of F1992 (=2590=2950; Grid Square Q17-S20) and F3170 (=3234; Grid Square R17-T19) and north-west to south-east aligned Gully F2952 (Grid Square R20-T18). The north-western terminus of the latter was cut by F1992 (=2590=2950), while its south-eastern section truncated F3170 (=3234). The resulting pair of small enclosures (Enclosures 25 and 26; Fig. 96) each measured some 67.5m², although the north-eastern extent of Enclosure 26 extended beyond the limit of excavation. Similar enclosures may have been formed by the south-easterly continuations of Ditch F2575 (Grid Square P21-T17) and Gully F2952 (Grid Square R20-T18) beyond Gully F3170 (=3234), though this interpretation remains tentative. Finds from F2952 include 66 sherds (833g) of Roman pottery, including early 2nd to late 2nd/ early 3rd century examples, CBM (293g) and animal bone (1445g). The faunal assemblage comprises elements of cattle, horse, sheep/ goat, roe deer (*Capreolus capreolus*), large terrestrial mammal and medium terrestrial mammal; a possible human tibia was also present (Cussans 2012). Immediately to the north-west, a final possible enclosure (Enclosure 27; Fig. 96) was formed by Ditch F1992 (=2590=2950) and the north-westernmost exposed section of F2575. The north-western and north-eastern limits of Enclosure 27 lay beyond the excavation; the visible portion measured c. 322m² (internally).

Further linear features assigned to this enclosure system comprised F1426 (Grid Square L16) and F3156 (Grid Square S17-T18). Ditch F3156 which may have been related to parallel Ditch F3154, potentially forming some manner of discrete enclosed space, while heavily truncated Ditch F1426 was functionally ambiguous.

Stratigraphically later Roman Sub-Phase 4 ditches and gullies (northern quadrant)

Ten further, apparently interrelated, linear features within the northern quadrant of the site were assigned to Roman Sub-Phase 4 (Table 67; Fig. 96-106). These were either stratigraphically later than Roman Sub-Phase 4 Enclosure System 1 (outlined above), or were aligned differently to the principal features of that system.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1657	Ditch	L15-M15	Curvilinear	7.27 x 0.71 x 0.22	Curvilinear	U-shaped	Concave
1667	Ditch	L15-M14	ENE-WSW	11.95 x 0.53 x 0.26	Linear	U-shaped	Concave
1711	Gully	N19-Q19	Curvilinear	1.30 x 0.38 x ?	Curvilinear	Moderate	Concave
1937	Gully	N15	ENE-WSW	4.46 x 0.65 x 0.23	Linear	U-shaped	Concave
2503=3674	Ditch	Q13-Q14 & R14-T15	NE-SW	39.36 x 1.37 x 0.64	Linear	Gentle	Concave
2573	Ditch	N20-Q20	Curvilinear	20.02 x 1.60 x 0.47	Curvilinear	U-shaped	Concave
2727	Gully	P20-Q20	NW-SE	7.47 x 0.70 x 0.16	Linear	U-shaped	Concave
3146	Gully	R19-T17	NW-SE	16.53 x 0.88 x 0.53	Linear	Gentle	Concave
3178	Ditch	Q18	Curvilinear	9.11 x 0.81 x 0.26	Curvilinear	Gentle	Flat
3270	Ditch	Q17-R18	N-S	3.54 x 0.48 x 0.29	Linear	Moderate	Concave

Table 67: Stratigraphically later Roman Sub-Phase 4 ditches and gullies (northern quadrant)

Gullies F1711 (Grid Square N19-Q19) and F3146 (Grid Square R19-T17), and Ditch F2573 (Grid Square N20-Q2; Table 67) were located in the far north of the site (Fig. 96). The former displayed contradictory stratigraphic relationships with Ditch F1735 (Grid Square N19-R17; Enclosures 21 and 22), and re-evaluation during post-excavation analysis determines that it should be assigned to this later period of activity based upon its position in relation to contemporary Ditch F2573. Curvilinear features F1711 and F2573 appeared to partially recut earlier Roman Sub-Phase 4 features, and seemed to form a sub-circular (unnumbered) enclosure measuring at least 270m² (internally), with a possible entrance between their respective termini. The north-western extent of this possible enclosure lay beyond the limit of excavation. Roman Sub-Phase 2 Ditch F1737 (Grid Square N19) may have constituted an earlier demarcation of this enclosure, and was recorded as having been recut by F1711. The south-eastern section of F2573 was subsequently recut by Gully F2727 (Grid Square P7-Q7). Linear Gully F3146 represented a partial recut of Ditch F2575 to the south; the north-western terminus of this feature was aligned with the exposed terminus of F2573 (c. 16m to the north) and the two may have been related.

Despite their stratigraphic position, the finds assemblages from F1711, F2573 and F2727 are eclectic. The largest pottery assemblage from this group, 60 sherds (1021g) from F2573, predominantly dates to the late 1st to early/ mid-2nd centuries, and therefore must represent residual material. The fact that this feature cut earlier archaeology assists, to some extent, in explaining the presence of this material, as does the location of F2573 within the confines of Enclosure 8 (Roman Sub-Phase 2 Enclosure System 3). Similarly, the 10 sherds (176g) of pottery were predominantly mid-/ late 1st to early 2nd century in date, though F2573 again cut a significant density of earlier Roman features. This ditch also yielded 2890g of animal bone, comprising elements of cattle, horse, sheep/ goat, roe deer, bird, large terrestrial mammal and medium terrestrial mammal. The single identified bird bone is duck-sized, while one large terrestrial mammal element comprises a 'chopped' caudal vertebra.

Ditches F3178 (Grid Square Q18) and F3270 (Grid Square Q17-R18) were present to the south-east of curvilinear Gully F1711 (Grid Square N19-Q19; Fig. 96). Both features were again stratigraphically later than Roman Sub-Phase 4 Enclosure System 1, but were aligned differently to both F1711 and possibly contemporary Gully F3146 (Grid Square R19-T17), c. 16m to the east. Curvilinear Ditch F3178 followed a broadly east to west course, while F3270 was aligned c. north to south. Both ditches contained similar individual fills and may have been related, though their profiles displayed nominal differences. Finds from these features comprise just

12g of animal bone from F3270 (L3271); both features were tentatively assigned to Roman Sub-Phase 4 based on their stratigraphic relationships.

Further to the south-west, Ditches F1657 (Grid Square L15-M15) and F1667 (Grid Square L15-M14), and Gully F1937 (Grid Square N15) were identified in the area surrounding Roman Sub-Phase 4 Ditch F1796 (Grid Square L15-N14) (Fig. 96). The alignments of these features were slightly at odds to their immediate Roman Sub-Phase 4 neighbours, though they respected one another and possibly formed an open-ended (unnumbered) enclosure measuring at least 90m² (internally). All three truncated earlier Roman Sub-Phase 3 features in this part of the site, though their temporal relationship to Roman Sub-Phase 4 Enclosure System 1 remains uncertain. Two of the three produced closely datable pottery assemblages; F1667 yielded eight sherds (72g) of Roman pottery including three mid-2nd to 3rd century examples, while the assemblage from F1937 includes seven early/ mid-2nd to mid-3rd century sherds. Of particular note however is a single fragment of blue-green Roman bottle glass from Fill L1797 (Seg.A) of Ditch F1796 (Cooper this report – *The small finds*), similar to Roman Sub-Phase 3 and 5 examples from the site. The cast bottle form that this fragment derives from dates to the late 1st or 2nd century however (*ibid.*), suggesting that it was either residual within L1797 or came from a bottle that remained in use into the 3rd century AD.

The south-eastern terminus of Ditch F1667 (Grid Square L15-M14) appeared to align with the south-western terminus of Ditch F2503 (=3674), c. 22.4m distant. This fragmented feature ran north-east to south-west for approximately 37m across the southern part of the northern site quadrant, before turning sharply to the north-west at its south-eastern end and continuing for a further 2m. The relationship between the differently numbered elements of this feature remains tentative however, and the potential alignment with F1667 even more so. Finds from F2503 (=3674) comprise 16 sherds (182g) of Roman pottery (not closely datable), animal bone (789g), Fe fragments (29g), burnt bone (1g) and a single piece of residual struck flint from L3675. Despite this paucity of diagnostic artefacts, both elements of F2503 (=3674) truncated Roman Sub-Phase 3 features and it was phased accordingly.

Associated Roman Sub-Phase 4 ditches (south-eastern quadrant)

Five substantial Roman Sub-Phase 4 ditches were identified towards the western edge of the south-eastern quadrant of the site (Table 68; Figs. 107-109). Although only two were physically related, these features displayed similarities in plan and fills, and appeared to form some manner of rectilinear 'system' of ditches, albeit greatly obscured by previously excavated site (SHER) MNL 608 and the tree preservation area. The exposed termini of Ditches F4959 (Grid Square T11-U12), F4975 (Grid Square S11-T11) and F5009 (Grid Square T11-V9) appeared to respect one another and possibly represented access points between conjoining enclosures. The 'entrance' between the termini of F4959 and F4975 measured c. 1.7m across, whilst that between F4975 and F5009 measured c. 2m across. Ditch F5069 (Grid Square U10-V11) truncated the south-eastern section of F5009 and mirrored the alignment of F4959 to the north-west. The area incompletely enclosed by Ditches F4959, F5009 and F5069 (Enclosure 28) measured at least 175m². Ditch F4997 (Grid Square U8-V7), c. 10m to the south-west of F5009, was similarly aligned to the latter (and with the majority of F4975), and tentatively represented an outlier of this group.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
4959	Ditch	T11-U12	NE-SW	0.96 x 1.10 x 0.38	Linear	Moderate	Concave
4975	Ditch	S11-T11	NE-SW & NW-SE	1.14 x 1.22 x 0.40	Curvilinear	Moderate	Concave
4997	Ditch	U8-V7	NW-SE	1.25 x 0.60 x 0.26	Linear	Gentle	Concave
5009	Ditch	T11-V9	NW-SE	10.00+ x 0.90 x 0.46	Linear	Steep	Flattish
5069	Ditch	U10-V11	NE-SW	? X 1.11 x 0.57	Linear	Moderate	Concave

Table 68: Related Roman Sub-Phase 4 ditches and gullies (south-eastern quadrant)

Three of these features, Ditches F4959, F4975 and F5069, yielded closely datable pottery assemblages; the former contained six sherds (322g) of early to late 3rd century pottery, while F4975 yielded nine sherds (53g), predominantly of mid-2nd to late 2nd/ early 3rd century date. Both of these date ranges overlapped the proposed date range of Roman Sub-Phase 4; the two mid-1st to mid-2nd century sherds (26g) from F5069 represent residual material. Other finds from these ditches comprise animal bone, CBM, slag, Fe fragments and burnt flint. Ditch F5009 yielded just one sherd (7g) of Roman pottery (not closely datable) and 18g of animal bone, whilst F4997 was devoid of finds. All of these Ditches appeared stratigraphically contemporary however, which, combined with their spatial relationships and the firm dates for F4959 and F4975, enabled the phasing of F4997 and F5009. F5069 was stratigraphically secure within this sub-phase.

Enclosure 29 (south-western quadrant)

A possible rectilinear Roman Sub-Phase 4 enclosure was identified in the south-western quadrant of the excavation (Enclosure 29; Figs. 110-112); the main constituent features of this enclosure are outlined in Table 69. The earliest boundary associated with Enclosure 29 was marked by F4463 (Grid Square L10), a short north-east to south-west aligned ditch with a single fill (L4464) that was partially recut/ superseded by Ditch F4496 (Grid Square L10-M10). This secondary feature followed a similar course to its predecessor and was truncated at its north-eastern end by Ditch F4135 (Grid Square L12-M10), the north-eastern enclosure boundary. Primarily however, F4496 was cut in the same area by Roman Sub-Phase 4 Pit F4494 (Grid Square M10-M11; see below), which was truncated in turn by Ditch F4542 (Grid Square L10-M11). F4542 broadly mirrored the alignment of F4496, c. 0.5-2.5m to the south-east, and was also cut in the north-east by Ditch F4135. As such, the far south-eastern boundary marked by F4463 and F4496 was most likely already redundant/ filled when F4135 was dug.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
4135	Ditch	L12-M10	NW-SE	22.21 x 0.80 x 0.21	Linear	Gentle	Flat
4463	Ditch	L10	NE-SW	5.75 x 0.45 x 0.65	Linear	Steep	Flat
4496	Ditch	L10-M10	NE-SW	12.65 x 0.96 x 0.54	Linear	Steep	Concave
4536	Ditch	K11-L10	NW-SE	16.77 x 1.65 x 0.60	Linear	Moderate	Concave
4542	Ditch	L10-M11	NE-SW	13.77 x 1.13 x 0.25	Linear	Gentle	Flat
4544=4558	Ditch	K11-L10	NW-SE	14.42 x 0.88 x 0.56	Linear	Gentle	Concave

Table 69: Principal features forming the Roman Sub-Phase 4 enclosure (south-western quadrant)

The south-western terminus of Ditch F4542 was truncated by Ditch F4536 (Grid Square K11-L10), the south-western edge of Enclosure 29. Ditch F4544 (=4558; Grid Square K11-L10) ran parallel to the north-eastern edge of Ditch F4536 and may have formed a double-ditched boundary with the latter; these features were stratigraphically equal and exhibited roughly similar fills. The exposed internal area of (possible) Enclosure 29 outlined by F4135, F4542 and F4536/ F4544 (=4558)

measured c. 155m²; the north-western extent of this area was obscured by the excavation edge.

One of the latest features forming this possible enclosure, F4536 (Grid Square K11-L10), contained a substantial and tightly datable pottery assemblage; most of the 107 sherds (1512g) yielded by this feature were 2nd to 3rd century in date. F4536 also contained a substantial animal bone assemblage, comprising elements of cattle, horse, large terrestrial mammal and medium terrestrial mammal, exhibiting evidence of butchery and canid gnawing. None of the other features in this group yielded pottery of any particular note, though F4463 did yield one sherd (47g) of intrusive late 3rd to 4th century material. Other finds from these features comprise modest quantities of CBM, shell and fired clay.

A possibly associated cluster of six ditches and gullies (Table 70) was present to the immediate south of Enclosure 29. Three of these, F3376 (=4445; Grid Square L10-L11), F4238 (Grid Square K9-L10) and F4244 (Grid Square K9-L10) (Fig. 110), were intercutting, while F4222 (Grid Square L9) and F4226 (Grid Square L9) followed a similar alignment to F4238 and were located a short distance to the south of the latter. Ditch F4254 (Grid Square L9) was only visible in section, cut by Roman Sub-Phase 5 Gully F4240. Predominantly, these features mirrored the south-eastern boundary of Enclosure 29, marked by Ditch F4542 (Grid Square L10-M11), although F3376 (=4445), the stratigraphically latest of the intercutting trio, appeared not to respect the alignment of any other Roman Sub-Phase 4 feature in the immediate vicinity; it is likely that this ditch represented a later stage of activity within Roman Sub-Phase 4, post-dating Enclosure 29.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
3376=4445	Ditch	L10-N11	Curvilinear	10.65 x 1.25 x 0.66	Curvilinear	U-Shaped	Concave
4222	Gully	L9	?	1.86 x 0.45 x 0.90	Linear	Gentle	Flat
4226	Gully	L9	ENE-WSW	1.83 x 0.51 x 0.70	Linear	Gentle	Concave
4238	Gully	K9-L10	ENE-WSW	0.98+ x 0.62 x 0.44	Linear	Steep	Flattish
4244	Ditch	K9-L10	ENE-WSW	9.84 x 0.78 x 0.47	Linear	Gentle	Concave
4254	Ditch	L9	ENE-WSW	0.98+ x 0.66 x 0.37	Linear	Steep	Flat

Table 70: Roman Sub-Phase 4 ditches and gullies to the south of the Roman Sub-Phase 4 enclosure (south-western quadrant)

Dispersed Roman Sub-Phase 4 ditches and gullies

Within the western quadrant of the site, six dispersed Roman Sub-Phase 4 ditches and gullies (Table 71) were spread across an area of c. 810m². Two of these, Ditches F1189 (Grid Square D10-E11) and F1191 (Grid Square D11-E11), were intercutting, though their respective alignments appeared incongruous and both features were partially obscured by the edge of excavation. The remainder of the features within this diffuse cluster were stratigraphically isolated from one another. The east-north-east to west-south-west alignment of Ditch F1191 was broadly emulated by Gully F1200 (Grid Square D9-E9), Ditch F1240 (Grid Square F9) and part of curvilinear Ditch F1152 (Grid Square C9-D9) to the south/ south-east, and it is possible that they once formed an integrated 'system' of features; Gully F1195 (Grid Square E8) and the eastern portion of Ditch F1152 ran perpendicular to the above.

The remainder of the dispersed Roman Sub-Phase 4 ditches and gullies (Table 71) were comparatively isolated from similar, contemporary features and were broadly

spread across the site as a whole. Gully F2090 (Grid Square Q16) was located close Roman Sub-Phase 4 Enclosure System 1 in the northern quadrant of the site but was aligned differently to all other elements of this system. Four of these 16 features contained closely datable pottery assemblages: F1152 (above) yielded six sherds (39g) of Roman pottery including three 2nd to early 3rd century examples, Gully F1253 (Grid Square K13) contained four similarly dated sherds (52g), Gully F2090 (Grid Square Q16) yielded 13 sherds (136g) of late 2nd to mid-3rd century date and Ditch F3027 (Grid Square E2-F3 and E4-F3) contained 12 sherds (205g), the majority of which were late 2nd to mid-3rd/4th century in date. However, the greatest pottery assemblage (by weight) from these features comprises 12 sherds (1022g) of Roman pottery (not closely datable) from Ditch F2209 (=2235; Grid Square G12-G13). Like F2209 (=2235), the majority of these dispersed ditches and gullies were devoid of datable material and were tentatively assigned to Roman Sub-Phase 4 based on their stratigraphic relationships.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1105	Ditch	A5-B4	NW-SE	? X 1.29 x 0.20	Linear	Moderate	Flattish
1152	Ditch	C9-D8	Curvilinear	12.78 x 1.30 x 0.33	Curvilinear	U-shaped	Concave
1189	Ditch	D10-E11	NE-SW	9.25 x 0.46 x 0.21	Linear	Gentle	Concave
1191	Ditch	D11-E11	ENE-WSW	5.00 x 0.50 x 0.10	Linear	Gentle	Concave
1195	Gully	E8	c. N-S	1.32 x 0.47 x 0.28	Linear	U-shaped	Concave
1200	Gully	D9-E9	WNW-ESE	5.41 x 0.38 x 0.20	Linear	Steep	Concave
1240	Ditch	F9	ENE-WSW	2.30 x 0.76 x 0.49	Linear	Steep	Concave
1253	Gully	K13	NW-SE	9.63 x 0.71 x 0.42	Linear	U-shaped	Concave
1316	Ditch	J13	E-W	7.12 x 0.93 x 0.30	Linear	Unknown	Concave
2090	Gully	Q16	WNW-ESE & NE-SW	7.72 x 0.44 x 0.14	Linear	U-shaped	Concave
2118	Ditch	G14	NE-SW	7.72 x 0.44 x 0.14	Linear	U-shaped	Concave
2161	Gully	G14	NNW-SSE	0.40 x 0.44 x 0.25	Linear	V-Shaped	Concave
2209=2235	Ditch	G12-G13	c. NNE-SSW	8.22 x 1.22 x 0.50	Linear	U-shaped	Concave
2302	Ditch	E5	NW-SE	0.98+ x 0.48 x 0.14	Linear	Gentle	Flat
2478	Gully	P14	NW-SE	2.00 x 0.19 x 0.08	Linear	Gentle	Flat
3027	Ditch	E2-F3 & E4-F3	Curvilinear	16.70 x 1.3 x 0.50	Curvilinear	Steep	Concave
3535	Gully	Q8-R6	Curvilinear	17.19 x 1.05 x 0.35	Curvilinear	Steep	Concave
3730	Ditch	V14-V15	NW-SE	6.33 x 1.65 x 0.33	Linear	Gentle	Concave
3809	Gully	X11	Curvilinear	3.68 x 0.33 x 0.07	Curvilinear	Moderate	Concave

Table 71: Dispersed Roman Sub-Phase 4 ditches and gullies

The Roman Sub-Phase 4 pits

Of the 26 pits assigned to Roman Sub-Phase 4, eight conformed to two distinct feature clusters (Tables 72 and 73) the larger of which (with Posthole F3748) comprised the earliest identified Romano-British building (Structure 3) on the site. The smaller pit cluster appeared associated with Roman Sub-Phase 4 Enclosure System 1. Four of the identified Roman Sub-Phase 4 pits formed two feature pairs (Tables 74 and 75), again associated with Roman Sub-Phase 4 Enclosure System 1. Five further pits were found within the confines of this enclosure system, whilst two (Table 77) were associated with Enclosure 29 in the south-western quadrant. The remaining seven Roman Sub-Phase 4 pits were comparatively isolated from contemporary features.

The smaller Roman Sub-Phase 4 pit cluster

A cluster of three intercutting pits (Table 72), displaying primary stratigraphic relationships with Postholes F3326 and F3328 (see below), was found in loose association with Roman Sub-Phase 4 Enclosure System 1 (Fig. 113). All three features shared similar profiles and fills. To the north, this cluster was truncated by

Roman Sub-Phase 4 Gully F2090 and to the immediate south Pit F3314 truncated the fill of Roman Sub-Phase 2 Ditch F1999 (L2000). The only finds from this cluster comprise four sherds (71g) of Roman pottery (not closely datable) from F3316 (L3318); these features were phased according to their stratigraphic relationships.

Feature	GS	Size (m)	Plan	Profile	Base
3314	Q16	0.44 x 0.66 x 0.18	Oval	Steep	Flattish
3316	Q16	0.90 x 1.10 x 0.48	Oval	Steep	Concave
3319	Q16	0.56 x 0.32 x 0.30	Oval	Steep	Concave

Table 72: Roman Sub-Phase 4 pit cluster 1

The larger Roman Sub-Phase 3 pit cluster (Structure 3)

The larger of the Roman Sub-Phase 4 pit clusters (Table 73) comprised five loosely grouped features located to the south-east of Roman Sub-Phase 4 Enclosure System 1 (Fig. 114). With Posthole F3748, these pits formed a sub-rectangular arrangement spanning an area of c. 57m², the south-eastern edge of which (Pits F3669, F3766 and F3781) was aligned with nearby Roman Sub-Phase 4 Ditch F2503 (=3674; Grid Square Q13-Q14 and R14-T15). This formal arrangement of features was interpreted as the surviving part of a rectangular, possibly aisled, building (Structure 3) enclosing an area of some 40m². The presence of CBM in four of these six features may support a structural interpretation (see below – *Focuses of Roman Sub-Phase 4 activity*); Pits F3771, F3773, F3776 and F3781 yielded a total of 5540g of CBM. In addition, Pit F3766 contained 1200g of worked stone. The latter was much larger than the other features forming this structure however, and may not have constituted a primarily structural feature. The datable pottery assemblages from three of these features (F3766, F3771 and F3773) spans the 2nd to mid-3rd centuries, the largest (by weight and count) comprising 51 sherds (773g) of mid-2nd to early 3rd century date from F3766.

Feature	GS	Size (m)	Plan	Profile	Base
3669	T16	0.81 x 0.78 x 0.70	Sub-square	Steep	Flat
3766	T16	3.30 x 1.00+ x 1.07+	Circular	Very steep	Unknown
3771	T16	0.50 x 0.60 x 0.28	Sub-oval	Gentle	Flattish
3773	T16-T17	1.94 x 0.40 x 0.23	Sub-circular	Steep	Concave
3781	T16-U16	0.98+ x 0.75 x 0.20	Sub-circular	Moderate	Concave

Table 73: Features forming Structure 3

Other finds from Structure 3 comprise animal bone, shell, Fe fragments, and trace residual struck flint. Pit F3766 yielded the greatest quantity of animal bone (4054g), comprising elements of cattle, horse, sheep/ goat, red deer, dog, large terrestrial mammal and medium terrestrial mammal. One sheep/ goat bone appeared to be neonate, while the red deer bone recovered was exclusively antler and included evidence of working (sawing and chamfering) (Cussans 2012). The distal end of one horse phalanx displayed extensive new bone growth (exostosis) (*ibid.*), possibly linked to long-term trauma associated with traction or other heavy use (Baker and Brothwell 1980, 114-5).

Although smaller, Structure 3 shared its alignment with both aisled buildings at the Maltings site (Bales 2004, 11, 15), and was similar in date. Associated finds from both sites are also typologically similar. However, the spacing between postholes recorded at the Maltings site (*buildings 1 and 2*) was more regular than observed at the former Smoke House Inn, and most also contained clear evidence of postpipes

(Bales 2004, 15, 17), lacking from the present 'structure'. Nonetheless, both the 'maltings' and preceding barn at (SHER) MNL 502 were substantial structures (the maltings comprised 49 postholes and multiple internal features; Bales 2004, 15); a smaller building would not necessarily have required such a high level of construction. The apparently ephemeral character of Structure 3 was also demonstrated by the lack of associated 'floor' deposits or occupation debris though these may have been lost due to truncation by subsequent Roman features (principally Roman Sub-Phase 5 Gully F3746 and Ditch F3763).

The Roman Sub-Phase 4 pit pairs

Two pairs of pits were identified within Roman Sub-Phase 4. The first of these, comprising Pits F2676 and F2975 (Grid Square Q19; Table 74), was located within Enclosure 23/ 23a, adjacent to the south-western edge of Roman Sub-Phase 4 Gully F1869 (Grid Square P18-Q19; Fig. 115). Both features were similar in size, plan and profile, and their respective individual fills were comparable. Only F2676 yielded finds however, comprising 17 sherds (159g) of late 2nd to 3rd century pottery and trace amounts of animal bone (including burnt bone) and burnt flint. F2975 was dated based on its stratigraphic position and location/ similarities in respect to F2676.

Feature	GS	Size (m)	Plan	Profile	Base
2676	Q19	0.96 x 1.00 x 0.16	Sub-circular	Steep	Concave
2975	Q19	1.16 x 0.78 x 0.20	Sub-oval	U-shaped	Concave

Table 74: Roman Sub-Phase 4 pit pair (1 of 2)

The second pair of Roman Sub-Phase 4 pits (Table 75) was also located within the confines of Enclosure 26 (Fig. 116). These intercutting features were almost identical in plan and profile and, bar colour, contained comparable fills. Pit F3654 was truncated by stratigraphically later Pit F3656 and was cut through Roman Sub-Phase 2 Spread L3651 (Grid Square S19-S20 and T19). All features in this part of the northern quadrant were sealed by undated Spread L2974. Pit F3655 yielded the largest quantity of finds, comprising just six sherds (18g) of Roman pottery (not closely datable) and 31g of shell; F3658 contained a single sherd (2g) of pottery and 79g of burnt stone. In the absence of closely datable material, these pits were tentatively phased based on their stratigraphic relationships and location in respect to nearby Roman Sub-Phase 4 features.

Feature	GS	Size (m)	Plan	Profile	Base
3654	S20	0.36 x 0.50 x 0.35	Oval	Very Steep	Concave
3656	S20	0.60 x 0.65 x 0.45	Sub-oval	Very Steep	Concave

Table 75: Roman Sub-Phase 4 pit pair (1 of 2)

Individual pits associated with Roman Sub-Phase 4 Enclosure System 1

In addition to the two pit pairs described above, five further pits (Table 76) were likely associated with Roman Sub-Phase 4 Enclosure System 1. Two of these, F2655 (Grid Square P18-P19) and F3001 (Grid Square R19), physically cut or were cut by Roman Sub-Phase 4 ditches and/ or gullies, while the remainder were located close to such features. For example, Pit F3225 (Grid Square S17) was located adjacent to the south-westerly terminus of Ditch F3156 (Grid Square S17-T18). Three of these pits contained finds, the greatest assemblage (from F1988 (Grid Square L16-M16))

comprising seven sherds (66g) of Roman pottery (not closely datable), CBM (3146g), animal bone (575g), shell (321g) and Fe fragments (135g). The faunal assemblage from this feature comprises elements of cattle, horse, sheep/ goat, dog and large terrestrial mammal. None of remaining pits yielded closely datable material and Pits F1986 (Grid Square P16) and F3001 (Grid Square R19) were devoid of finds. As such, the majority of these features were phased based on their stratigraphic and spatial relationships.

Feature	GS	Size (m)	Plan	Profile	Base
1986	P16	0.22 x 0.48 x 0.44	Oval	Steep	Concave
1988	L16-M16	4.03 x 2.96 x 0.36	Irregular	U-shaped	Flat
2655	P18-P19	0.58+ x 0.61+ x 0.57	Oval	Near-vertical	Concave
3001	R19	1.10 x 1.10 x 0.72	Sub-circular	Irregular	Concave
3225	S17	1.60 x 1.25 x 1.15	Sub-square	Steep	Flat

Table 76: Individual pits associated with Roman Sub-Phase 4 Enclosure System 1

Pits associated with Enclosure 29

Two pits were recorded in the vicinity of the Enclosure 29 (south-western quadrant; Table 77). One of these, Pit F4135, was intercut with constituent features of this enclosure (Grid Square M10-M11), but yielded no finds of any type, while Pit F4583 was found within the confines of the enclosure (Grid Square K11); the latter did not yielded closely datable material. Despite lacking diagnostic pottery, Pit F4583 was tentatively assigned to Roman Sub-Phase 4 based on its location. Both features contained identical fills.

Feature	GS	Size (m)	Plan	Profile	Base
4494	M10-M11	1.10 x 0.92 x 0.47	Sub-oval	Steep	Flat
4583	K11	1.45 x 1.20 x 0.19	Oval	Gentle	Flat

Table 77: Pits associated with Enclosure 29

The isolated Roman Sub-Phase 4 pits

Seven Roman Sub-Phase 4 pits (Table 78) were recorded as being comparatively isolated from other similar features and any ditch or gully forming part of an identifiable Roman Sub-Phase 4 'system' or boundary. Two of these pits, F4273 and F4301 (Grid Square U7), may have constituted a loosely associated pair of features although contained contrasting fills and yielded no finds of any type. In fact, four of these features were devoid of finds and only one contained datable pottery; Pit F4604 (Grid Square S14) yielded a single early 2nd to mid-3rd century sherd (1g). As such, the majority of the isolated Roman Sub-Phase 4 pits were tentatively phased according to their locations and/ or stratigraphic relationships.

Feature	GS	Size (m)	Plan	Profile	Base
3037	E3	2.20 x 1.33 x 0.57	Oval	U-shaped	Concave
4194	T7-T8	0.22 x 0.20 x 0.15	Circular	Steep	Concave
4273	U7	1.00 x 0.86 x 0.13	Oval	Gentle	Concave
4301	U7	0.26 x 0.25 x 0.09	Sub-circular	Moderate	Concave
4604	S14	1.50 x 1.24 x 0.15	Irregular	Steep	Flat
4792	V14-W14	1.26+ x 0.92 x 0.37	Oval	Moderate	Flattish
5102	V11	0.65 x 0.35 x 0.25	Sub-oval	Steep	Concave

Table 78: Isolated Roman Sub-Phase 4 pits

The Roman Sub-Phase 4 postholes

Four postholes (Table 79) were attributed to Roman Sub-Phase 4, none of which yielded finds of any description. One posthole, F3748 (Grid Square T16), formed part of Structure 3 (above). Two of the remaining postholes, F3326 and F3328 (Grid Square Q16), were intercut with the smaller Roman Sub-Phase 4 pit cluster comprising F3314, F3316 and F3319 (Grid Square Q16), but they remain functionally ambiguous. Posthole F4108 (Grid Square J9) truncated the fill of Roman Sub-Phase 3 Ditch F4104 (Grid Square J8-L10); Roman Sub-Phase 4 Gully F4238 (GS K9-L10) lay c. 6.5m to the north-east of this feature.

Feature	GS	Size (m)	Plan	Profile	Base
3326	Q16	0.20 x 0.20 x 0.56	Oval	Very Steep	Concave
3328	Q16	0.19 x 0.30 x 0.24	Sub-circular	Very Steep	Concave
3748	T16	0.30 x 0.28 x 0.42	Sub-circular	Vertical	Concave
4108	J9	0.20 x 0.18 x 0.19	Circular	Very Steep	Flat

Table 79: The Roman Sub-Phase 4 postholes

The Roman Sub-Phase 4 funerary evidence

Two possible Cremation Pits (F2555 and F2556; Grid Square P20; Table 80) were assigned to Roman Sub-Phase 4 (Fig. 117). Cremation Pit F2556 (*Cremation 3*), the earlier feature, was cut into the single fill of curvilinear Ditch F2573 (L2574), and was circular in plan with a U-Shaped profile and concave base. Pit F2555 cut through the southern edge of its predecessor and was morphologically identical. The earlier feature yielded the rim and neck of a Horningsea ware narrow-neck jar with a shoulder cordon decorated with faint burnished vertical lines; this vessel fragment contained a single friable silt fill (L2562). The backfill of Pit F2556 comprised friable sandy silt (L2560). The stratigraphically later 'Cremation' Pit (F2555; *Cremation 2*) yielded fragments of two vessels, comprising a Wattisfield region reduced ware bowl jar (c. one third complete) and a single fragment of a sandy grey ware jar with a narrow neck cordon and soot on the exterior (*ibid.*); the latter was reportedly associated with sandy silt Fill L2558. The backfill of this feature (L2557) also comprised friable sandy silt. The pottery from both features, given their definite stratigraphic position, appears residual, collectively spanning the mid-1st to mid-2nd centuries AD. Environmental samples from both features (numbers 166, 167, 168 and 169) yielded only sparse cereal remains and a single weed seed (from L2557; Summers, Appendix 2). No charcoal (exceeding 2mm) was recorded (*ibid.*) and it remains uncertain whether these features actually represented cremations. The only bone recovered from the environmental samples comprises six small fragments of unburnt animal (mammal) bone.

Feature	Cremation	GS	Size (m)	Plan	Profile	Base
2555	2	P20	0.21 x 0.16 x 0.20	Circular	U-shaped	Concave
2556	3	P20	0.14 x 0.15 x 0.20	Circular	U-shaped	Concave

Table 80: The Roman Sub-Phase 4 ?cremations

The Roman Sub-Phase 4 Spread

A single spread (L2477; Grid Square P14-P15) was associated with Roman Sub-Phase 4. It measured approximately 30m² in plan and was located to the south-east of Roman Sub-Phase 4 Enclosure System 1. Only three diagnostic pottery sherds were recovered from this context, one of which is early 2nd to mid-3rd century in date;

the other two sherds were residual (late 1st to 2nd century AD). The remaining 267g of pottery from this spread comprises undiagnostic coarse ware. Other finds from L2477 comprise modest quantities of CBM and animal bone. Structure 3 was located c. 35m to the east-north-east and was unlikely to have been directly associated with this material.

Focuses of Roman Sub-Phase 4 activity

The distribution of Roman Sub-Phase 4 CBM, by weight (Fig. 118), was once again most concentrated within the northern quadrant, predominantly in and around Grid Squares K15, L16 and M15-M16. These Grid Squares, in addition to R17 and T16, each yielded over 2001g of CBM. The former concentration appears clustered around the southern corner of Enclosure 21, with the upper fill of Pit F1988 (L1990) yielding the majority (3146g). This deposit also contained notable weights of animal bone (575g) and oyster shell (255g), as well as Fe fragments (135g), and appears to have represented a discrete episode of dumping rather than *in situ* structural collapse. Similar 'dumps' of material were encountered in Ditch F2631 (Seg.K) and Gully F3154 (Seg.C/ D), both in Grid Square R17.

The concentration of CBM in Grid Square T16 (Fig. 118), as outlined above, was yielded by features forming (?aisled) Structure 3. Pits F3771, F3773, F3776 and F3781 contained CBM totalling 5540g, most likely comprising packing material. No postpipes had survived however, possibly indicating that any posts had been purposefully removed prior to the building's abandonment. Pit F3766 also yielded 1200g of fragmented gritstone quern (Cooper this report – *The small finds*) which may have fulfilled a similar function. It is possible that further CBM associated with the use and collapse/ demolition of Structure 3 was lost to later Roman activity, namely Ditch F3763 and Gully F3746, which truncated the 'interior' of the structure. It is also possible that the dumps of CBM in Grid Square R17, c. 20m to the north-west, represented the convenient disposal of unwanted debris post-dating the abandonment of Structure 3.

Plotting Roman Sub-Phase 4 pottery by weight (Fig. 119) revealed a general spread of material across the site, predominantly concentrated in the northern quadrant. Two grid squares (Grid Square M16 and P20) in this area of the excavation yielded in excess of 1001g to 2000g of pottery. The only greater weight of Roman Sub-Phase 4 pottery (>2001g) was recovered from Grid Square K10 in the south-west quadrant. This material was yielded by Ditch F4536, the possible south-western boundary of Enclosure 29, though was greatly characterised by residual 2nd century material and does not therefore represent Roman Sub-Phase 4 consumption and discard. In contrast F3376 (=F4445) and F4238, both in the south-western quadrant contained fabrics typical of the early to mid 3rd century AD chronology of the sub-phase

The nature of Roman Sub-Phase 4 activity

Roman Sub-Phase 4 activity at the former Smoke House Inn site was extremely similar in most respects, bar (possibly) intensity, to preceding Roman Sub-Phase 3. The northern quadrant of the site was again dominated by a large system of ditched enclosures, numbering at least 7/ 8, and various ?associated ditches and gullies,

while the south-western quadrant of the site contained a single rectilinear enclosure (Enclosure 29). Enclosure 28 was identified in the south-eastern site quadrant, although was largely obscured by previously excavated site (SHER) MNL 608. In all areas however, the number of identified features was less than in Roman Sub-Phase 3. Only one spread (L2477) was present within Roman Sub-Phase 4.

A particular point of interest was Structure 3, identified within the northern quadrant. This sub-rectangular arrangement of pits and one posthole was located to the south-east of Enclosure 24 on a north-east to south-west alignment. Although substantially smaller than the aisled buildings reported from the nearby Maltings (SHER MNL 502; Bales 2004), the alignment of all three matched exactly and the date of the present structure mirrored that of Building 2 at the Maltings excavated by SCCAS (see above). The majority of associated finds are consistent with the agricultural character of the contemporary Roman Sub-Phase 4 landscape. Any potential floors/ occupation deposits within Structure 3 had been lost to later activity, although a notable quantity of CBM packing material was recovered from the postholes forming this structure. Given the apparently ephemeral nature of the structural evidence, Structure 3 was probably a small-scale (likely agricultural) building linked to activity taking place with the nearby Roman Sub-Phase 4 enclosures.

Although recorded as cremations, there is little to suggest that Pits F2555 and F2556 were funerary features. Environmental samples yielded little to support this conclusion and the sparse pottery from both features was residual.

Like earlier Roman sub-phases, cattle were the most abundant domestic species and appear to have been used for food and traction (Curl and Cussans this report – *The animal bone*). One particularly large individual may have been a bull (*ibid.*), and, like earlier Roman Sub-Phase 3, suggests the on-site breeding of stock. Equid remains also included evidence of possible traction animals, while evidence for skinning was also identified (*ibid.*). Age data for sheep/ goat suggest the use of ovicaprids for a number of purposes, e.g. meat, milk and wool, while pig remains from this sub-phase are most likely from animals of prime meat age (*ibid.*). Red and roe deer remains include meat and working waste while elements of crane and possible mallard were also present.

The pastoral economy of Roman Sub-Phase 4 was again combined with cereal agriculture (see Summers this report – *The charred plant macrofossils and charcoal*). Charcoal from Roman Sub-Phase 4 Pit Fill L1990 suggests the deliberate gathering of oak fuel wood (*ibid.*).

4.2.5 Roman Sub-Phase 5 (mid-3rd to early 4th century AD)

Summary

Roman Sub-Phase 5 spanned the mid-3rd to early 4th centuries AD. It witnessed an intensification of activity across the south-eastern and south-western quadrants of the site and included the first clear enclosure system in the western quadrant (Roman Sub-Phase 5 Enclosure System 2; Fig. 120). Large rectilinear enclosures, representing a 'ladder' system, were present to the south of previously excavated site MNL 608 (Roman Sub-Phase 5 Enclosure System 1), along with three

associated structures (Structures 4-6). These appeared to comprise the remains of post-built store houses or granaries. Various possible trackways or similar were also recorded in the two southern quadrants. In comparison, the northern quadrant of the site contained relatively few features. Although a small number of ditches and gullies were present, no individual enclosures were distinguishable. It is possible that earlier enclosures in the northern quadrant remained in use, being partly augmented by Roman Sub-Phase 5 features.

The Roman Sub-Phase 5 ditches and gullies

The main body of the site, incorporating the northern, south-eastern and south-western quadrants, contained a substantial system of ditched enclosures and possible trackways (Fig. 120). The constituent features were predominantly aligned north-east to south-west or north-west to south-east, in keeping with the preceding Roman sub-phases, and broadly represented a single episode of activity (including the small-scale recutting of some boundaries). This system of enclosures was most evident in the south-eastern and south-western quadrants of the site (Roman Sub-Phase 5 Enclosure System 1; Figs. 121-128), and was reminiscent of the early to middle Roman 'ladder' system reported from Childerley Gate, Cambridgeshire (Abrams and Ingham 2008, 52ff), c. 39km to the south-west. The linear features to the north had survived to a lesser degree. Ditches and gullies in the northern quadrant (Table 81) were physically separate from their southern contemporaries, no doubt due in part to later disturbance.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1429=1814	Ditch	J16 - N14 & N14 - P15	NW-SE & NE-SW	46.63 x 1.82 x 0.77	Linear	V-shaped	Concave
1720	Ditch	Q15 - P16 & Q17 - S20	NNE-SSW	? X 1.47 x 0.24	Linear	Gentle	Flat
1725	Ditch	P15 - Q15	NW-SE	6.27+ x 1.49+ x 0.44	Linear	Steep	Flat
1733	Ditch	P14 - P15	NE-SW	9.68 x 1.04 x 0.29	Linear	Gentle	Concave
2251	Gully	P13	WNW-ESE	1.86 x 0.42 x 0.17	Linear	U-shaped	Concave
2499=2530	Ditch	L12 - P13	c. NE-SW	23.19 x 1.32 x 0.36	Linear	Moderate	Flat
2507	Ditch	Q13 - Q14	NE-SW	4.54 x 0.50 x 0.19	Linear	U-shaped	Concave
3186	Gully	Q16 - R16	WNW-ESE	3.57+ x 1.2+ x 0.40	Linear	Moderate	Concave
3188	Gully	P14 - Q16	NE-SW	19.98 x 1.16 x 0.31	Linear	Steep	Concave
3738	Ditch	U15 - V14	NW-SE	35.51+ x 2.10 x 0.21	Linear	Moderate	Concave
3746	Gully	S16 - T17	Curvilinear	17.97+ x 0.15+ x 0.16	Curvilinear	Moderate	Concave
3763	Gully	T16/17 - U16	NE-SW	10.35+ x 3.87 x 0.53	Linear	Moderate	Flattish
3801	Ditch	V14 - X12	NW-SE	35.51+ x 1.50 x 0.34	Linear	Moderate	Concave

Table 81: Roman Sub-Phase 5 ditches and gullies (northern quadrant)

The longest Roman Sub-Phase 5 linear feature within the northern quadrant of the site was Ditch F1429 (=1814; Grid Square J16-N14 and N14-P15). This feature was substantial, possibly forming one edge of a large rectilinear enclosure. Predominantly, F1429 (=1814) was aligned north-west to south-east; the southern part of this feature turned sharply to the north-east, whilst its northern extremity turned similarly to the south west. The main section of the ditch ran for some 39m across the northern quadrant, while the north-east to south-west 'return' at its southern extent ran for c. 12.5m. The northern 'return' of this feature ran beneath the excavation edge. Finds from Ditch F1429 (=1814) are numerous and included a tightly datable pottery assemblage; of the 15 sherds (463g) found, five date to the late 3rd/ 4th century AD. Other finds from F1429 (=1814) comprise animal bone (5460g), CBM (2760g), mortar (138g) and trace quantities of burnt and residual struck flint. The faunal assemblage comprises elements of cattle, horse, sheep/

goat, bird, large terrestrial mammal and medium terrestrial mammal, and includes evidence of canid gnawing and butchery (Curl and Cussans this report - Curl and Cussans this report – *The animal bones*). The butchered remains include a horse metacarpal with cut marks, while the single identified bird bone is the worked ulna of a swan (*ibid.*).

Environmental sampling of F1429 (=1814; L1432 Seg.C) yielded sparse cereal grains and chaff, including barley (sp.) and emmer/ spelt wheat. Identified wild taxa included goosefoot and large grass (sp.), and charcoal (both <2mm and >2mm) was common. Archaeological molluscs and amphibian bones were also common within the sample.

Ditch F1733 (Grid Square P14-P15) and Gully F3188 (Grid Square P14-Q16), respectively c. 5m and c. 8m to the south-east of F1429 (=1814), ran parallel to the southern return of the latter. These features were themselves c. 1.5m apart and possibly represented the remnants of a narrow trackway running north-east to south-west across the northern quadrant of the site. This pair yielded closely datable pottery assemblages which support the prescribed date range of Roman Sub-Phase 5. F1733 contained 24 sherds (642g) of Roman pottery, including 18 late 3rd to 4th century examples, while F3188 contained 76 sherds (1300g), 42 of which are mid-3rd to 4th century in date. Other finds from the latter include Fe fragments (97g) and a considerable faunal assemblage (2115g). Of particular note however are a conical, bone spindle-whorl from Fill L3190 (Seg.B; SF107) fashioned from the humeral head from a large ungulate, and a broken length of sandstone whetstone from L3189 (Seg.B; Cooper this report – *The small finds*). Ditch F1733 yielded a modest quantity of animal bone (503g), CBM (379g) and Fe (29g). The combined animal bone assemblage from these features comprises elements of cattle, horse, sheep/ goat, dog, large terrestrial mammal and medium terrestrial mammal, and includes evidence of canid gnawing (from F3188 (L3190)) (Cussans 2012).

An environmental sample from Ditch F1733 (L1734 (Seg.B) yielded common indeterminate cereal grain (Summers this report – *The charred plant macrofossils and charcoal*). Identified grains of hulled barley and emmer/ spelt wheat were present in very small numbers (*ibid.*). Identified wild taxa included vetch/ wild pea and sedge, and charcoal (<2mm and >2mm) was also present (*ibid.*).

Gully F3188 (Grid Square P14-Q16) was truncated at its midpoint by Ditch F1725 (Grid Square P15-Q15) and at its north-eastern end by Gully F3186 (Grid Square Q16-R16). These roughly parallel features ran c. north-west to south-east and potentially formed elements of a small rectilinear 'system' of features, much of which had been lost. The north-western end of Ditch F1725 was subsequently truncated by Ditch F1720 (Grid Square Q15-P16 and Q17-S20), a possible recut of this feature that followed a roughly similar alignment. Only one of these features, Gully F3186, yielded tightly datable pottery, comprising eight sherds (152g) of mid/ late 2nd to mid-3rd century date. Other finds from these features comprise modest quantities of animal bone, CBM and Fe.

Gullies F3746 (Grid Square S16-T17) and F3763 (Grid Square T16/17-U16) were located c. 16-21m to the east of Gully F3186 (Grid Square Q16-R16). These intercutting features greatly truncated Structure 3 (Roman Sub-Phase 3), potentially

displacing any associated occupation/ floor material that might have otherwise survived. The orientation of these features reflected those of contemporary ditches and gullies to the west, and it is likely that they once formed elements of an integrated 'system' of features. The stratigraphically latest of the pair, F3763, yielded the greatest artefact assemblage comprising 18 sherds (273g) of Roman pottery, including four late 2nd to mid-3rd century examples. Other finds from this feature comprise animal bone (1702g), shell (79g), CBM (1235g) and Fe (14g). The faunal assemblage comprises elements of cattle, horse, pig and large terrestrial mammal (Cussans 2012), and includes evidence of exostosis and eburnation (pathological traits often associated with the overuse or irregular movement of joints; Baker and Brothwell 1980). F3746 yielded small amounts of generic Roman pottery, animal bone and trace quantities of shell.

Roman Sub-Phase 5 Gully F2251 (Grid Square P13) and Ditch F2507 (Grid Square Q13-Q14) were found towards the south-western corner of the northern quadrant. These features lay approximately perpendicular to one another (c. 3m apart) and were identical in plan and profile; both also contained very similar individual fills. It is likely that these features were directly related, maybe forming the southern corner of an enclosure or pen; the c. 3m-wide entrance to which was possibly formed by their respective termini. F2251 and F2507 were both cut by Roman Sub-Phase 6 Ditch F2314 (=3663) and respectively truncated Roman Sub-Phase 3 and Roman Sub-Phase 4 features. Neither yielded tightly datable pottery however, and both were only tentatively assigned to this sub-phase.

Ditches F3738 (Grid Square U15-V14) and F3801 (Grid Square V14-X12) ran perpendicular to the excavation edge in the south-eastern corner of the northern quadrant; the south-eastern terminus of F3801 fell just within the south-eastern quadrant. These features appeared to recut a Roman Sub-Phase 2 boundary comprising intercutting Ditches F3721, F3723, F3725 and F3877, and Gullies F3795 and F3797, suggesting that at least some of these earlier features were still in use (open) throughout Roman Sub-Phases 3 and 4 and possibly into the early part of Sub-Phase 5 (c. early to mid/ late 2nd to mid-3rd century). Ditches F3801 and F3738 may have comprised the north-westerly continuation of Roman Sub-Phase 5 Gully F3785 (GS X12), which formed a possible section of trackway with parallel Gully F3787 (see below). A c. 2m wide gap between Ditches F3801 and F3738 may have constituted an access point of some description. Finds from these features were unremarkable and did not include closely datable pottery. These features were tentatively assigned to this sub-phase based on their stratigraphic relationships and alignments with F3785.

North-east to south-west aligned Ditch F2499 (=2530; Grid Square L12-P13) was recorded traversing the boundary between the northern and south-western quadrants. This ditch was aligned with contemporary linear features in both areas and may have formed the north-westernmost element of a 'ladder' system of enclosures (Roman Sub-Phase 5 Enclosure System 1) traversing the south-eastern and south-western quadrants (see below). The south-eastern end of this feature was truncated by Roman Sub-Phase 6 Ditches 2255 (=3612; Grid Square L11-U17) and F2314 (=3663; Grid Square L11-U16); these obscured the relationship between F2499 (=2530) and nearby Ditches F3402 (=3435; Grid Square L12-Q8 and Q8-R9) and F4452 (Grid Square M12; see below). The position and alignment of this feature

presented a 'link' between the Roman Sub-Phase 5 ditches and gullies in the northern quadrant and those to the south. Once again, Ditch F2499 (=2530) yielded a tightly datable pottery assemblage; of the 24 sherds (996g) of pottery recovered from this feature, 19 sherds were late 3rd to 4th century in date. Other finds from this feature comprise animal bone (1634g) and CBM (543g). The faunal assemblage comprises elements of cattle, horse and large terrestrial mammal, and includes evidence of canid gnawing (Cussans 2012).

Roman Sub-Phase 5 Enclosure System 1

Linear features across the south-eastern and south-western quadrants (Table 82) represented a clear system of ditched enclosures and possible droveways/trackways. The major part of this system (Figs. 121-128) comprised regularly spaced linear features reminiscent of a 'ladder' system, mostly known from East Yorkshire (e.g. Richardson *et al.* 2011; *cf* Halkon and Millett 1999) but also reported from the Romano-British phase at Childerley Gate, Cambridgeshire (Abrams and Ingham 2008, 52ff).

Ditch F2499 (=2530; Grid Square L12-P13), which traversed the northern and south-western quadrants, was perpendicular to substantial boundary Ditch F3402 (=3435; Grid Square L12-R9); the potential relationship between these features was masked by later Roman activity and the excavation edge (Fig. 121). Ditch F4452 (Grid Square M12) also appeared to relate to these features, though the nature of this relationship was similarly uncertain. Ditch F3402 (=3435) comprised the longest north-west to south-east aligned Roman Sub-Phase 5 boundary feature in the southern part of the site, running for some 55m before turning sharply to the north-east in Grid Square Q8 and continuing for another c. 11m. This north-east to south-west section of F3402 (=3435) was mirrored to the north-west by Ditches F3368 (Grid Square P9-Q8) and F3381 (GS P10-Q11), as well as by Ditch F2499 (=2530); the south-western end of F3381 was truncated by stratigraphically later Ditch F3378 (Grid Square N10-P11). The south-western ends of F3368 and F3378 were truncated by Ditch F3402 (=3435), effectively creating a pair of squared enclosures (Enclosures 30 and 31) to the north-east of the latter. A third enclosure (Enclosure 32) appeared delineated to the north-west by Ditches F3402 (=3435), F3378/ F3381 and F2499 (=2530). Together these enclosures appeared to form elements of a 'ladder' system and ranged in size from at least c. 200m² to at least c. 400m², but were all partially concealed by either the tree preservation area and/ or previously excavated site MNL 608.

Ditch F3402 (=3435) yielded the largest finds assemblage of this group, comprising 66 sherds (1148g) of pottery, animal bone (5752g), CBM (930g), Fe fragments (12g), slag (949g), charcoal (4g) and shell (11g). The pottery assemblage from this feature includes six mid-2nd to 3rd century sherds, nine 3rd century sherds, one 3rd to 4th century sherd and one Roman/ medieval sherd. The substantial faunal assemblage comprises elements of cattle, horse, sheep/ goat, pig, dog, large terrestrial mammal and medium terrestrial mammal, and includes evidence of butchery, canid gnawing and possible rodent gnawing (Cussans 2012). The only other datable pottery assemblage from this group comprises nine early/ mid-2nd to 4th century sherds from Ditch F3387 (L3380).

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
3356	Gully	N9	NW-SE	2.23+ x 0.60 x 0.09	Linear	Gentle	Concave
3358	Ditch	N9-R6	NW-SE	48.34+ x 2.20+ x 0.55	Linear	Moderate	Flattish
3368	Ditch	P9-Q10	NE-SW	16.94+ x 0.96 x 0.44	Linear	Moderate	Concave
3378	Ditch	N10-P11	NE-SW & NNE-SSW	17.27+ x 2.21 x 0.89	Linear	Steep	Concave
3381	Ditch	P10-Q11	NE-SW	19.73+ x 0.75+ x 0.41	Linear	Very steep	Concave
3402=3435	Ditch	L12-Q8 & Q8-R9	NW-SE	72.41+ x 2.10 x 0.64	Linear	Moderate	Flattish
3441	Ditch	P9-S7	NW-SE	34.53+ x 2.80 x 0.79	Linear	Steep	Concave
3506	Gully	R8	NW-SE	18.83 x 0.50 x 0.30	Linear	Steep	Concave
3537	Gully	Q5-Q7	NNW-SSE	17.83 x 0.90 x 0.35	Linear	Steep	Concave
3541	Ditch	P7-R6	NW-SE	18.20+ x 0.65+ x 0.17+	Linear	Moderate	Concave
3549=5107	Ditch	Q5-W11	NE-SW	37.93+ x 1.00+ x 0.73	Linear	Steep	Concave
3562	Gully	Q5-R6	NE-SW	17.26+ x 0.80 x 0.45	Linear	Moderate	Flattish
3566	Gully	R6	NW-SE	1.64+ x 0.45+ x 0.18	Linear	Very steep	Flattish
3785	Gully	X12	NW-SE	2.48+ x 0.65+ x 0.12	Linear	Gentle	Concave
3787	Gully	W12-X12	NW-SE	1.85+ x 0.50+ x 0.11	Linear	Moderate	Concave
3811	Gully	X11	NE-SW	2.23+ x 0.47 x 0.12	Linear	Gentle	Concave
3901	Ditch	K7-M9	NE-SW	22.43+ x 0.70 x 0.31	Linear	V-shaped	Concave
3909	Ditch	K7-M9	NE-SW	32.28+ x 1.97 x 0.48	Linear	Gentle	Flattish
3911	Ditch	J7-M9	NE-SW	35.78+ x 2.22 x 0.74	Linear	Moderate	Flattish
3924	Ditch	L7-M8	NE-SW	21.18+ x 1.20 x 0.46	Linear	Gentle	Concave
3966	Ditch	K8	NE-SW	4.10+ x 0.80 x 0.55	Linear	Moderate	Concave
3977	Gully	Q6	NE-SW	1.73+ x 0.22 x 0.15	Linear	Moderate	Concave
3983	Gully	Q5-Q6	NE-SW	3.06+ x 0.95 x 0.27	Linear	Gentle	Concave
4016	Ditch	J8	ENE-WSW	1.92+ x 0.60 x 0.30	Linear	Steep	Flat
4018	Gully	J8	NE-SW	3.00+ x 0.45 x 0.12	Linear	Steep	Flattish
4071	Gully	J9-K8	Curvilinear	4.09+ x 0.07 x 0.15	Curvilinear	Moderate	Concave
4077	Gully	J9	Curvilinear	16.68+ x 0.60 x 0.46	Curvilinear	Steep	Flattish
4220	Gully	K9-L9	ENE-WSW	9.40 x 0.51 x 0.12	Linear	Very Gentle	Concave
4224	Gully	L9	ENE-WSW	1.73+ x 0.27 x 0.07	Linear	Gentle	Concave
4240	Gully	L9-L10	Curvilinear	28.31+ x 0.60 x 0.30	Linear	Moderate	Flat
4442	Ditch	L9-M10	ENE-WSW	9.99 x 1.50 x 0.54	Linear	U-shaped	Concave
4452	Ditch	M12	NW-SE	2.64 x 0.56 x 0.23	Linear	Steep	Concave
4461	Gully	K12-M10	NW-SE	18.64 x 0.40 x 0.10	Linear	Moderate	Concave
4532=4560	Ditch	K11-L10	NW-SE	20.07 x 1.00 x 0.50	Linear	Moderate	Flat
4955	Ditch	V12-W11	NW-SE	0.64+ x 0.97 x 0.38	Linear	Steep	Flat
5003	Ditch	T10-U11	NE-SW	? x 0.63 x 0.37	Linear	Steep	Flattish
5020	Ditch	T11	NW-SE	? x 0.56+ x 0.39	Linear	Steep	Flattish
5059	Ditch	T10-T11	NE-SW	? x 0.49 x 0.14	Linear	Steep	Flattish
5071	Ditch	U10-V10	NE-SW	? x ? x 0.42	Linear	Steep	Concave
5080	Ditch	V12	NW-SE	? x 1.10 x 0.37	Linear	Moderate	Concave
5082	Ditch	V12-W11	NW-SE	? x 0.67 x 0.13	Linear	Gentle	Concave
5084	Ditch	V11-W11	NE-SW	? x 0.53 x 0.33	Linear	Moderate	Concave
5086	Ditch	U8-V8	NW-SE	? x 0.90 x 0.25	Linear	Moderate	Flat
5096	Gully	W11-W12	NE-SW	6.00+ x 0.32+ x 0.12	Linear	Moderate	Flat

Table 82: Roman Sub-Phase 5 Enclosure System 1 (south-eastern and south-western quadrants), including the 'ladder' system

Environmental sampling of Ditch F3402 (=3435; L4454) yielded sparse cereal grains and chaff including emmer/ spelt wheat and hulled barley. Identified wild taxa included common spike-rush, grasses (sp.) and pea (sp.). Charcoal, both <2mm and >2mm, was common in the sample, as were archaeological molluscs and amphibian bones.

The southern corner of Ditch F3402 (=3435; Grid Square L12-Q8 and Q8-R9) truncated earlier intercutting linear features F3506 (Grid Square R8) and F3441 (Grid Square P9-S7); the latter may have constituted a partial recut of F3506 (Fig. 121). Both features were oriented north-west to south-east and appeared to form an earlier demarcation of the boundary marked by the longer section of F3402 (=3435). Ditch F3441 was cut at its south-eastern end by Ditch F3549 (=5107; Grid Square Q5-W11), the longest north-east to south-west aligned linear feature within this sub-phase. Ditch F5071 (Grid Square U10-V10) may have continued a north-eastern

return of Ditch F3402 (=3435) to the north-east of the tree preservation area. Although tentative, this alignment appeared to form a wedge-shaped enclosure (Enclosure 33) with F3549 (=5107), bounded at its south-western end by Ditch F3441. This precursor/ early element of the 'ladder' system to the immediate north-west (Enclosures 30-32) measured at least 460m² (internally), but was mostly obscured by the tree preservation area. It is possible that the 'wedge'-shape of this enclosure functioned in the 'funnelling' and control of livestock.

Boundary Ditch F3549 (=5107; Grid Square Q5-W11) yielded the greatest artefact assemblage of this group, comprising 32 sherds (558g) of pottery, including mid-2nd to mid-4th century examples, 1061g of animal bone, 11g of shell and 4g of residual struck flint. This feature also yielded a single sherd (5g) of residual Bronze Age pottery from F5107 (Seg.D) and a similar late Bronze Age/ early Iron Age sherd (2g) from F3549 (Seg.B). The Bronze Age sherd may have derived from Period I Pit F5136 which was cut by the northern edge of Ditch F3549 (=5107). The faunal assemblage from this feature comprises elements of cattle, horse, sheep/ goat, large terrestrial mammal and medium terrestrial mammal, and includes evidence of possible butchery (Cussans 2012). The only other datable pottery assemblage from this group comprises 11 sherds (317g) of mid-2nd to 4th century wares from Ditch F3441 (Grid Square P9-S7). Fill L3556 of the latter also yielded a piece of a circular, slightly convex copper alloy sheet fitting with concentric impressed decoration (SF91; Cooper this report – *The small finds*). A similar, albeit undecorated fragment of copper alloy sheet (SF136; *ibid.*) was also recovered from contemporary Ditch F5086 (below). Environmental sampling of Ditch F3549 (=5107; L5108 (Seg.C)) yielded indeterminate cereal grain. Identifiable cereal chaff was present in modest quantities and wild taxa were sparse. Charcoal (<2mm) was present in the sample and archaeological molluscs were common.

A short truncated 'return' at the north-eastern end of Ditch F3549 (=5107; Grid Square Q5-W11) was aligned with a possible double-ditched boundary to the north-west, comprising Ditches F4955 and F5082 (Grid Square V12-W11; Fig. 121). These appeared to constitute recuts of forerunning boundary Ditch F5080 (GS V12) and may have formed the north-eastern extent of the 'ladder' system of enclosures (Enclosures 30-32 and possibly 33) more evident to the south-west of the tree preservation area and previously excavated site MNL 608. The surviving enclosed space to the north-east of the tree preservation area (and to the north of F5071) measured at least 350m², though was largely obscured. A possible entrance existed between F3549 (=5107) and F4955/ F5082, though this area was massively truncated by a modern structure. Possible divisions between 'enclosures' were evidenced in this area by F5071 (see above), F5003 (Grid Square T10-U11), F5020 (GS T11), F5059 (Grid Square T10-T11) and F5084 (Grid Square U8-V8), although apart from Enclosure 33, none of these survived in a measurable state. F5003 may have formed a double-ditched boundary with F5059 and ran perpendicular to F5020; a possible entrance, measuring c. 1.6m-wide, existed between the respective termini of F5020 and F5059. Ditch F5084 was oriented north-east to south-west and appeared to relate directly to Ditch F4955; the alignment of the former was continued to the north-east by Gully F5096 (Grid Square W11-W12).

An alternative interpretation of F5020 and F5059 is that they formed the eastern extent of a penannular ditch, obscured to the west by the tree preservation area. It is

therefore possible that these features formed a roundhouse or similar circular structure within the confines of the contemporary 'ladder' system, although their later Roman date and the lack of complementary evidence would make such an interpretation tentative at best.

Although lacking closely datable finds, Ditches F4955, F5080, F5082, and F5084, and Gully F5096 were tentatively assigned to this sub-phase based on their obvious associations with one another and Ditch F3549 (=5107). Four of the five were also truncated by Roman Sub-Phase 6 features. Ditches F5003, F5020 and F5059 were similarly dated; all were cut by Sub-Phase 6 Ditch F5022 (Sub-Phase 6 T10-T11) and in turn cut earlier features. Bar Ditch F3549 (=5107; Grid Square Q5-W11), none of the enclosure ditches/ gullies to the north-east of the tree preservation area yielded notable finds.

A short segment of truncated gully (F3811; Grid Square X11) was found c. 9m to the south-east of F5096 (Grid Square W11-W12) and c. 5m north-east of Ditch F3549 (=5107; north-eastern return; Fig. 120). This feature was roughly parallel to the former and the two may have been related (these features differed in profile however). This feature cut the fill of Roman Sub-Phase 4 Gully F3809 (Grid Square X11) and was in turn truncated by Roman Sub-Phase 6 Ditch F3789 (Grid Square X11-Y9). Although lacking closely datable pottery, F3811 was assigned to this sub-phase on the basis of these relationships and its alignment with F5096.

North-west to south-east aligned Gullies F3785 (Grid Square X12) and F3787 (Grid Square W12-X12) were present a short distance to the north-east of Gully F5096 (Grid Square W11-W12), to which they were possibly related. These features were spaced c. 4.5m apart and may have formed a short section of trackway or similar, partly continued to the north-west by Ditches F3801 (Grid Square V14-X12) and F3738 (Grid Square U15-V14; see above). This trackway, if genuine, would potentially have followed the north-eastern edge of the above 'ladder' system of enclosures. Neither F3785 nor F3787 yielded finds of any description, though both were cut by Roman Sub-Phase 6 Ditch F3791 (=5098; Grid Square U10-X12) which also truncated the south-eastern edge of F5096.

The south-eastern edge of Ditch F3549 (=5107; Grid Square Q5-W11) cut through the north-western terminus of perpendicular Ditch F5086 (Grid Square U9-V8; Fig. 121). One of two (possibly three) sub-rectangular structures (Structure 5; Fig. 138) was located close to these ditches (see *The Roman Sub-Phase 5 structures* (below)) and respected the alignments of both. A larger, similar structure (Structure 4; Fig. 138) was found c. 16m to the south-west of F5086, once again respecting the alignment of F3549 (=5107). Ditch F5086 yielded 12 sherds (376g) of Roman pottery, including ten closely datable 4th century sherds, animal bone (904g), CBM (135g), clinker (3g), burnt flint (14g) and 14g of Fe fragments (including SF136). Of particular note is a torn fragment from a thin copper alloy sheet (SF136) from Fill L5087 (Cooper this report – *The small finds*). The faunal assemblage from this feature comprises elements of cattle, horse, sheep/ goat, dog, large terrestrial mammal and medium terrestrial mammal, and includes a few burnt and gnawed fragments (Cussans 2012). The unfused distal radius of a possible horse (less than 3½ years of age; Silver 1969, table a) is also present (*ibid.*).

To the south-west of substantial Ditch F3402 (=3435; Grid Square L12-R9; south-western quadrant), Roman Sub-Phase 5 Enclosure System 1 comprised a slightly less coherent grouping of large ditches and gullies. At least two possible enclosures were represented in addition to several potential droveways/ trackways, one of which appeared to run along the south-western edge of the 'Ladder' System (Fig. 121). Ditch F3358 (Grid Square N9-R6) ran broadly parallel to F3402 (=3435), c. 6-13.5m to the south-west. This feature appeared to be a more substantial recut of stratigraphically earlier Roman Sub-Phase 5 Ditch F3541 (Grid Square P7-R6) and Gully F3566 (Grid Square R6). Gully F3566 was almost wholly truncated by substantial Boundary Ditch F3549 (=5107; see above) which was in turn cut by the south-eastern end of F3358. The north-western end of Ditch F3358 truncated Gully F3356 (Grid Square N9). The stratigraphically late position of Ditch F3358 echoed that of parallel Ditch F3402 (=3435) and the two may have formed a broad trackway along the south-western edge of the 'ladder' system (Enclosures 30-32 and possibly 33) partially formed by the latter. The north-west to south-east alignment of Ditch F3358 appeared to be continued to the north-west by narrow Gully F4461 (Grid Square K12-M10), which potentially formed part of the same feature alignment. Gullies F3537 (Grid Square Q5-Q7), F3562 (Grid Square Q5-R6) and F3983 (Grid Square Q5-Q6) may have formed enclosure elements to the south-west of Ditch F3358, possibly related to stratigraphically earlier Ditch F3541 and Gully F3566, most of which was masked in this area by the excavation edge.

Of the above, only Boundary Ditch F3358 (Grid Square N9-R6) yielded finds of note, comprising 22 sherds (360g) of pottery, including residual early Iron Age and intrusive post-medieval material, animal bone (3137g), CBM (505g) and 16g of shell. The faunal assemblage comprises elements of cattle, horse, sheep/ goat, pig, red deer, cat, bird (larger than domestic fowl), large terrestrial mammal and medium terrestrial mammal, and includes evidence of butchery and gnawing (Cussans 2012). A single chopped sheep horn core is identifiable to species (*ibid.*). The remaining features were devoid of datable pottery and four (F3356, F3537, F3566 and F4461) contained no finds; these were assigned to Roman Sub-Phase 5 based on their stratigraphic relationships. For instance, Gully F4461 (Grid Square K12-M10) cut Roman Sub-Phase 4 Ditch F4135 (Grid Square M10) and was cut in turn by Roman Sub-Phase 6 Gully F4459 (Grid Square K12-L11); this feature also broadly aligned with contemporary Ditch F3358.

Gully F3977 (Grid Square Q6), was only visible in section, having been wholly cut by Ditch F3549 (=5107; Grid Square Q5-W11) and Gully F3562 (Grid Square Q5-R6; see above). This feature lacked finds of any sort and was only tentatively assigned to this sub-phase.

Ditch F3924 (Grid Square L7-M8) ran perpendicular to Ditch F3358 (Grid Square N9-R6) approximately 6m to the south-west of the latter. It is possible that these features formed two sides of a rectilinear enclosure, perhaps demarcated to the south-east by Ditch F3549 (=5107). However, the excavation edge masked much of this possible enclosure. Three parallel Roman Sub-Phase 5 ditches (F3901 (Grid Square K7-M9), F3909 (Grid Square K7-M9) and F3911 (Grid Square J7-M9)) were present immediately to the north-west of F3924 and perhaps marked two north-east to south-west aligned trackways (respectively 2m and 4m wide) traversing the south-western quadrant. These may have formed elements of a stock control system or

similar related to the possible north-west to south-east aligned trackway represented by Ditches F3358 and F3402 (=3435), immediately to the north-east. Alternatively, these linear features could have formed earlier or later demarcations of the possible enclosure boundary formed by F3924 (above). Two of these features yielded Roman pottery broadly datable to Roman Sub-Phase 5, comprising five 2nd to 4th century sherds (88g) from L3902 (F3901) and seven mid-2nd to mid-3rd century sherds (164g) from L3913 (F3911). F3911 also contained two residual late 1st to 2nd century sherds (19g), while two residual 2nd century sherds (9g) were recovered from F3909. All four ditches were truncated by Roman Sub-Phase 6 activity; those devoid of diagnostic material were phased accordingly.

Ditch F3966 (Grid Square K8) was barely visible in plan, protruding from the north-western edge of F3911 (Grid Square J7-M9). This feature represented an earlier demarcation of this feature and followed an identical alignment. Finds from F3966 were unremarkable and lacked closely datable Roman pottery; this feature was tentatively assigned to Roman Sub-Phase 5 based on its clear association with stratigraphically later Ditch F3911.

Another element of possible droveway/ trackway was identified within the south-western quadrant. Ditch F4532 (=4560; Grid Square K11-L10) ran parallel to Gully F4461 (Grid Square K12-M10) some 7m to the south-west of the latter, and appeared to partially recut Roman Sub-Phase 5 Gully F4240 (Grid Square L9-L10). The resultant 'trackway' ran for c. 20m before disappearing beneath the northern baulk in this area; no continuation of this trackway was identified in the northern quadrant. Truncated Gully F4240 curved to the south-west in Grid Square L10 and may have formed the south-eastern corner of an earlier (unnumbered) enclosure, the south-western corner of which was possibly represented by curvilinear Gully F4071, c. 10m to the south-west. Two of these three features yielded closely datable pottery; F4240 contained ten sherds (74g) of Roman pottery including three 3rd to 4th century sherds (19g), while F4532 (=4560) yielded 23 sherds (417g) including 11 (275g) late 3rd to 4th century examples. Other finds from these features include small to moderate quantities of animal bone, CBM and shell. Despite lacking diagnostic pottery, F4071 was tentatively phased based on its stratigraphic relationships.

The remaining five Roman Sub-Phase 5 ditches and gullies in the south-western quadrant (F4016, F4018, F4220, F4224 and F4442) all loosely followed the same north-east to south-west alignment (although somewhat 'staggered') along the south-eastern edge of the possible enclosure defined by F4071 (Grid Square J9-K8) and F4240 (Grid Square L9-L10). The function of these features remains uncertain although their shared orientation strongly suggested an association with other, contemporary features in the near vicinity. The only finds of note were yielded by Ditch F4442 and comprise 41 sherds (846g) of Roman pottery, including 11 (343g) late 3rd to 4th century examples, 447g of animal bone and 612g of CBM. The majority of these features were only tentatively phased based on their stratigraphic relationships.

Roman Sub-Phase 5 Enclosure System 2

This sub-phase witnessed the first clear Romano-British enclosure system in the western quadrant of the site (Table 83; Figs. 129-137). This system included

possible outlying features that have been separately tabulated (Table 84). The most striking feature of this system was the presence of numerous close-set ditches and gullies running north-west to south-east across the central area of the quadrant (Fig. 129): F1113 (Grid Square D8-D9), F1137 (Grid Square E9), F1150 (Grid Square D8-E8), F1187 (Grid Square D8-E7), F1202 (Grid Square F9), F1238 (Grid Square F9-G8), F1242 (=2268; Grid Square F9-G8), F2133 (=2138; Grid Square D8-E7), F2270 (Grid Square G8), F2328 (Grid Square G8-G9), F2360 (Grid Square F9-G8), F2376 (Grid Square F9-G8), F2380 (Grid Square G9-G10) and F2417 (Grid Square G10-H9). Ditch F1135 (Grid Square E9) was recorded in section only and may have been part of this group. The majority of these features were early in the Roman Sub-Phase 5 stratigraphic sequence and appeared contemporary, though, like F1135, a small number were recut. Most were also truncated by later Roman Sub-Phase 5 linear features aligned north-east to south-west. None yielded very closely datable pottery and three were devoid of finds; no other finds of note were recovered. Due to the lack of diagnostic material from these features, their phasing was based wholly on their spatial and stratigraphic relationships. Functionally, it is possible that they formed part of a stock control system or similar; several were spaced just c. 1m apart. This interpretation is tentative however. Recovered faunal remains attest to the presence of common 'farmyard' species; a single incidence of (possible) domestic fowl (*Gallus gallus*) is recorded from F1137 (L1138; Cussans 2012).

Irregularly aligned Gully F1177 (Grid Square F9) was slightly truncated by the south-western edge of substantial Ditch F1139 (=2212=2291; see below). This feature partially recut earlier Roman Sub-Phase 5 Gully F1202 (Grid Square F9; see above) and may have been continued to the south-east by Gully F2360. Gully F1177 was less linear than the other north-west to south-east aligned features in this quadrant, however, and may not have been strictly contemporary. Finds from this gully comprise a small quantity of Roman pottery (not closely datable) and sparse animal bone.

North-west to south-east aligned Ditches F1113 (Grid Square E8-D9) and F1137 (Grid Square E9) were both truncated (possibly recut) by Roman Sub-Phase 5 Ditch F1131 (Grid Square D10-E8). This more substantial feature followed the same general orientation and ran between baulks in this part of the site. Parallel Ditch F1227 (Grid Square D11-F10) was located c. 10m to the north-east of F1131 and followed a similar alignment; both were also morphologically similar and contained broadly comparable fills. It is possible that they formed elements of a rectilinear enclosure (Enclosure 34), the original form of which was largely obscured; that part exposed within the excavation measured c. 165m² (internally). Both were truncated by stratigraphically later Roman Sub-Phase 5 Ditches F1111 (Grid Square D8-E9) and F1139 (=2212=2291; Grid Square D8-F11; see below). Ditch F1204 (Grid Square D11-E11) was located a short distance to the north-east of F1227 and appeared to respect the latter. It is possible that this feature formed part of a second (unnumbered) enclosure in this area, with an entrance/ access point between its terminus and the north-eastern edge of Ditch F1227; this cannot be substantiated however.

Of F1131, F1227 and F1204, only the former yielded noteworthy finds. The pottery assemblage from this feature (56 sherds; 657g) includes four 3rd to 4th century sherds (56g) as well as a quantity of apparently residual (mid-1st to mid-2nd/ mid-3rd

century) material. This Ditch also contained an Fe nail (SF5) and a substantial weight of animal bone (5711g). The faunal assemblage comprises elements of cattle, horse, large terrestrial mammal and medium terrestrial mammal, and includes evidence of canid gnawing (Cussans 2012). Two cattle elements (an axis and humerus) are notable for their very large size (Cussans *pers. comm.*).

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1091	Ditch	C7 - C8	NW-SE	6.59 x 0.67 x 0.21	Linear	Steep	Irregular
1111	Ditch	D8 - E9	NE-SW	17.51 x 1.16 x 0.90	Linear	Steep	Concave
1113	Ditch	E8 - D9	NW-SE	11.02 x 0.87 x 0.55	Linear	U-shaped	Concave
1131	Ditch	D10 - E8	NW-SE	24.68 x 2.10 x 0.80	Linear	U-shaped	Concave
1135	Ditch	E9	NW-SE	1.20 x 0.27 x 0.27	Linear	Vertical	Flat
1137	Ditch	E9	NW-SE	9.66 x 1.27 x 0.66	Linear	Steep	Concave
1139=2212=2291	Ditch	D8 - G12	c. NW-SE	54.00 x 3.28 x 1.10	Linear	Moderate	Concave
1150	Ditch	D8 - E8	NW-SE	5.52 x 1.83 x 0.31	Linear	U-shaped	Concave
1177	Gully	E9	c. NW-SE	13.83 x 0.79 x 0.40	Linear	Moderate	Concave
1187	Ditch	D8 - E7	NW-SE	7.38 x 2.55 x 0.38	Linear	Gentle	Flattish
1202	Gully	F9	c. NW-SE	3.39 x 0.48 x 0.24	Linear	V-shaped	Concave
1204	Ditch	D11 - E11	NE-SW	5.11 x 1.70 x 0.45	Linear	Moderate	Flattish
1227	Ditch	D11 - F10	NW-SE	16.05 x 0.30 x 0.40	Linear	Steep	Concave
1238	Ditch	F9 - G8	NW-SE	3.51 x 0.98 x 0.56	Linear	Steep	Concave
1242=2268	Gully	F9 - G8	NW-SE	12.71 x 1.2 x 0.40	Linear	Moderate	Concave
2122	Ditch	G14	NW-SE	5.07 x 1.65 x 0.45	Linear	U-shaped	Concave
2133=2138	Ditch	D8 - E7	NW-SE	4.70 x 0.89 x 0.25	Linear	Irregular	Irregular
2151	Ditch	F13 - G13	NW-SE	17.07 x 1.90 x 0.56	Linear	U-shaped	Concave
2171	Ditch	F6 - G7	NE-SW	11.37 x 0.77 x 0.48+	Linear	Moderate	Flat
2174	Ditch	E6 - G7	NE-SW	20.40 x 2.11 x 0.89	Linear	Moderate	Concave
2191	Ditch	F8 - G8	NE-SW	8.80 x 0.65 x 0.22	Linear	U-shaped	Concave
2206	Ditch	F9 - G13	NNE-SSW	14.87 x 1.60 x 0.27	Linear	U-shaped	Concave
2239	Ditch	F5 - F6	NE-SW	12.31 x 0.60 x 0.30	Linear	Steep	Flat
2263	Gully	G8	NE-SW	5.61 x 0.63 x 0.39	Linear	U-shaped	Concave
2270	Ditch	G8	NW-SE	2.43 x 0.88 x 0.40	Linear	Moderate	Concave
2310	Ditch	E5	ENE-WSW	0.98+ x 0.30+ x 0.43	Linear	Steep	Concave
2312	Ditch	E5	?	0.98+ x 0.52 x 0.30	Linear	Steep	Concave
2328	Ditch	G8 - G9	NW-SE	6.67 x 1.29 x ?	Linear	Gentle	Irregular
2330	Ditch	F8 - G9	NE-SW	15.00 x 0.21 x 0.25	Linear	Gentle	Concave
2360	Gully	F9 - G8	NW-SE	1.51 x 0.20 x 0.14	Linear	U-shaped	Concave
2376	Gully	F9 - G8	NW-SE	2.56 x 0.35 x 0.40	Linear	Steep	Flat
2380	Gully	G9 - G10	NW-SE	5.62 x 0.60+ x 0.20	Linear	Moderate	Concave
2417	Ditch	G10 - H9	NW-SE	7.33 x 1.50 x 0.46	Linear	Moderate	Concave
2460	Gully	G8	NE-SW	6.47 x 0.81 x 0.13	Linear	Gentle	Flat

Table 83: Roman Sub-Phase 5 Enclosure System 2 (western quadrant)

The largest ditch in the western site quadrant (F1139=2212=2291; Grid Square D8-G12), possibly comprising a partial recut of earlier Roman Sub-Phase 5 Ditch F1111 (Grid Square D8-E9), mostly followed a c. north-east to south-west course (46.50m) before turning sharply to the east-south-east in Grid Square F11/ F12 and continuing for approximately 7.5m (Fig. 129). This Ditch appeared to form a substantial boundary, truncating several of the ditches and gullies described above, though no continuation of F1139 (=2212=2291) was noted. Bar Ditch F1091 (Grid Square C7-C8), no contemporary features were recorded in the area immediately to the south-west of this ditch; this part of the western quadrant was almost all disturbed by modern activity. Any eastward continuation of F1139 (=2212=2291) was masked by the excavation edge. It is likely, given the course of this ditch, that it constituted the north-western limit of a large rectilinear enclosure, much of which was lost. The pottery assemblage from this feature (104 sherds; 1311g) includes 26 closely datable (late 3rd to mid-4th century) sherds (265g) in addition to a quantity of residual and/ or less diagnostic wares; 31g of residual struck flint was also present. Other finds comprise pumice (517g), burnt flint (13g), Fe fragments (29g), shell (3g) and animal bone (922g). The faunal assemblage comprises elements of cattle, horse, sheep/ goat, pig, dog, large terrestrial mammal, medium terrestrial mammal and bird

(not identified to species), and includes evidence of canid gnawing, butchery, burning and pathology. The almost complete skulls of two goats (one very young) and one sheep are present from Seg.J of this feature (Curl and Cussans this report – *The animal bone*), as are elements of a neonate pig (Cussans 2012). The almost complete leg (right, rear) and pelvic fragments of a sheep were also recovered from Seg.B and may represent a ‘special’ deposition of some kind (Curl and Cussans this report – *The animal bone*). Cut marks on the leg are representative of skinning. Finds from earlier Ditch F1111 (Grid Square D8-E9) comprise a relatively modest quantity of Roman pottery (not closely datable) and 841g of animal bone, while those from F1091 were similar.

Environmental sampling of Ditch F1139 (=2212=2291; L1140 (Seg.G) and L1141 (Seg.I)) yielded trace cereal grains and chaff including hulled barley and wheat (sp.) (Summers this report – *The charred plant macrofossils and charcoal*). Wild species including sedges, grasses and plantain were recorded, and charcoal (>2mm) was present in the sample of Fill L1140 (Seg.G); charcoal <2mm in size was common in the sample of Fill L1141 (Seg.I) (*ibid.*). Archaeological molluscs were present/ common from this ditch, whilst amphibian bone and various contaminants were also recorded.

Ditches F2122 (Grid Square G14) and F2151 (Grid Square F13-G13) were present in the far northern corner of the western quadrant, a short distance to the north of Boundary Ditch F1139 (=2212=2291; Grid Square D8-G12; Fig. 129). These comparatively broad features were both oriented north-west to south-east and ran between baulks in this area (F2112 was heavily truncated). The area between these features measured c. 5m and may have represented a short section of driveway/ trackway or similar. It is possible that the alignment of this trackway was broadly continued to the south-east by F3402 (=3435; Grid Square L12-Q8 and Q8-R9) with F4461 (Grid Square K12-M10) or the latter with F4532 (=4560; Grid Square K11-L10). Ditch F2206 (Grid Square F9-G13) ran perpendicular to the south-western edge of F2151, and may have formed part of an (unnumbered) enclosure with the latter. The c. 2.4m gap between Ditch F2151 and the terminus of F2206 may have constituted an ‘entrance’ or access point. Finds from these northernmost features include two sherds (146g) of early 4th century+ pottery from F2122 and six sherds (161g) of residual late 1st to early/ mid-2nd century pottery from F2206. F2206 truncated Roman Sub-Phase 5 Ditch F1139 (=2212=2291), however, so was stratigraphically secure within this sub-phase; the residual material likely derived from nearby Roman Sub-Phase 2 Layer L2156 (Grid Square G12-G13). One find of interest from F2206 (L2207) is a sub-rectangular fragment of whetstone (SF106), similar to that from Gully F3188 (Cooper this report – *The small finds*). Ditch F2122 also yielded a notable weight of animal bone (1262g), comprising elements of cattle and large terrestrial mammal which display evidence of butchery (Cussans 2012).

Two parallel ditch/ gully alignments, comprising four features in total (F2191 (Grid Square F8-G8), F2263 (Grid Square G8), F2330 (Grid Square F8-G9) and F2460 (Grid Square G8)), were located c. 12.5-17.5m to the south-east of Boundary Ditch F1139 (=2212=2291; Grid Square D8-G12) (Fig. 129). These features were aligned north-east to south-west and formed part (including recuts) of a possible trackway running for approximately 16m and disappearing beyond the excavation edge; no southerly continuation of this ‘trackway’ was apparent. It truncated features forming

the possible 'livestock control' area in this part of the site (see above) and was thus late within the Roman Sub-Phase 5 stratigraphic sequence. The only finds from these ditches and gullies comprise a modest quantity of animal bone from F2330 (L2331).

A possible double-ditched boundary was identified in the south-eastern part of the western quadrant. This boundary comprised Ditches F2171 (Grid Square F6-G7), F2174 (Grid Square E6-G7) and F2239 (Grid Square F5-F6), the first and last of which were intercutting elements of the same feature alignment (Fig. 129). The centre part of this boundary was truncated by broadly contemporary Pit F2403 (see below). This boundary may (tentatively) have been continued further to the east by features in the south-western quadrant including Ditch F3911 (Grid Square J7-M9). It is more likely, however, that Ditch F2174 was continued to the south-west by Ditch F1003 (=1019; Grid Square A3-C5; see below), though subsequent disturbance and unexcavated ground obscured this relationship. Ditch F2174 yielded the only notable finds of this group including three late 3rd to 4th century pottery sherds (59g) and four 4th century sherds (208g). Seventeen residual (late 1st to early/ mid-2nd century) were also recovered, in addition to small amounts of CBM and shell, and a substantial animal bone assemblage (3505g). The faunal assemblage comprises elements of cattle, horse, sheep/goat, dog, large terrestrial mammal and medium terrestrial mammal (Cussans 2012). Butchered horse bone was recovered from Segments B, C and D of this feature, and includes a sawn metatarsal – possibly for working – and a proximal metacarpal displaying pathological bone growth (Curl and Cussans this report – *The animal bone*). A butchered dog tibia was also found in Segment D (*ibid.*). A fragment of right human (adult) mandible was also recovered from Ditch F2174 (Curl this report – *The human bone*), although the source of this element remains uncertain. Ditches F2310 and F2312 were recorded a short distance to the south-east of this boundary (Grid Square E5), though the orientation of F2310 was different (east-north-east to west-south-west); F2312 was recorded in section only. Both features lacked diagnostic finds and were dated according to their stratigraphic relationships.

Roman Sub-Phase 5 Enclosure System 2 (possible outliers)

Possible outlying features of this enclosure system were present in the far south-east and far south-west of the western quadrant (Table 84; Fig. 120). The largest of these, Ditch F1003 (=1019; Grid Square A3-C5), may have represented a continuation of Ditch F2174 (Grid Square E6-G7) c. 23m to the north-east, although later activity and unexcavated ground obscured this relationship. Lesser Ditches F1015 and F1097 (Grid Square A4-B4) were present to the north-west of F1003 (=1019), but their relationship to the latter remains uncertain; only parts of these ditches were exposed. Finds from these features comprised modest quantities of Roman pottery (not closely datable), animal bone and Fe fragments. All three were truncated by subsequent Roman Sub-Phase 6 features and were tentatively phased based on these relationships; F1097 also cut earlier Roman Sub-Phase 4 Ditch F1105 (Grid Square A5-B4).

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1003=1019	Ditch	A3 - C5	NE-SW	27.00 x 3.50 x 0.80	Linear	U-shaped	Concave
1015	Ditch	A4 - B4	c. E-W	? X 0.62 x 0.13	Linear	Gentle	Concave
1097	Ditch	A4 - B4	NW-SE	1.70 x 1.64 x 0.18	Linear	Moderate	Flattish
3046	Gully	E2 - F3	ENE-WSW	? X 1.16 x 0.12	Linear	U-shaped	Flattish
3577	Gully	G3 - G4	NNW-SSE	7.93+ x 0.48 x 0.21	Linear	Gentle	Flat
3579	Gully	G3 - G4	NNW-SSE	7.98+ x 0.87 x 0.36	Linear	Moderate	Concave
3591	Gully	G4	NNW-SSE	2.55+ x 0.38 x 0.13	Linear	Moderate	Concave

Table 84: Roman Sub-Phase 5 Enclosure System 2 (western quadrant; outliers)

An intercutting group of three gullies (F3577 (Grid Square G3-G4), F3579 (Grid Square G3-G4) and F3591 (Grid Square G4)) was located in the far south-eastern corner of the western quadrant. These appeared to form consecutive cuts of the same boundary (aligned north-north-west to south-south-east) and were comparatively isolated from other contemporary features. Gully F3046 (Grid Square E2-F3) was located c. 15.5m to the south-west and may have constituted an associated boundary, running perpendicular to the above, although this interpretation is tentative. None of these features yielded closely datable material (F3046 and F3591 were devoid of finds) but all were either cut by Roman Sub-Phase 6 features or truncated Roman Sub-Phase 4 features; their phasing remains tentative.

The Roman Sub-Phase 5 structures

Three possible structures were located to the south-east of the 'ladder' system of enclosures (Roman Sub-Phase 5 Enclosure System 1), two of which were sub-rectangular in plan (Structures 4 and 5). Structure 4 was the larger of these, comprising possible Drip-Gully F4192 (=4357=4363; Grid Square T6-T8 and U7-U8) and Pits F4316 and F4328 (Grid Square T7), and was aligned north-east to south-west (parallel to nearby Ditch F3549 (=5107; Grid Square Q5-W11)) (Fig. 138). Gully segment F4357 was an outlier of this group and was only tentatively associated. The internal area of Structure 4 measured approximately 80m², but lacked 'occupation' deposits or 'floor' material. Pits F4316 and F4328 may have been structural, possibly representing the surviving elements of a four-post structure or similar. Neither contained packing material. Drip-Gully F4192 (=4357=4363) yielded two sherds (13g) of 4th century pottery, 39g of CBM and 142g of animal bone. Also recovered were two sherds (6g) of residual Bronze Age pottery; F4192 (=4357=4363) cut through an area of extensive prehistoric (Period I) pitting. This feature also cut (tentatively phased) Roman Sub-Phase 4 Pit F4273 (Grid Square U7) and was truncated by several Roman Sub-Phase 6 features. Of the pits, only F4328 yielded finds, comprising a single sherd (10g) of Roman pottery (not closely datable); both pits were assigned to Roman Sub-Phase 5 based on their likely structural association with encircling Gully F4192 (=4357=4363).

Structure 5 was located c. 19m north-east of Structure 4, and comprised possible Drip-Gully F5134 (Grid Square V9-W9) and Postholes F5153, F5141 and F5143 (Grid Square V9) (Fig. 138). This structure was morphologically identical to its neighbour and also sat parallel to Ditch F3549 (=5107; Grid Square Q5-W11). In addition, this structure appeared to respect the alignment of Roman Sub-Phase 5 Ditch F5086 a short distance to the south-west (Grid Square U9-V8). The area within Drip-Gully F5134 measured c. 27m² and encompassed the three, apparently structural, postholes (no packing material was evident). Once again, no evidence of 'occupation' deposits or 'floor' material was present. In plan, Structure 5 closely resembled published examples of prehistoric/ Romano-British four-post structures.

Another incomplete segment of possible drip-gully (F5155; Grid Square W8) was identified c. 7.5m to the south-east of F5134 (Grid Square V9-W9). This feature had been heavily truncated by modern activity and yielded just 16g of shell. However, this feature was similar, in plan and section, to F5134 and both features contained similar individual fills. F5155 was tentatively interpreted as representing the sole surviving element of a third structure (Structure 6; Fig. 121), possibly similar in form and function to Structures 4 and 5.

It is possible, based on the most completely surviving example, that Structures 4-6 represented four-post 'granaries'. This building form is ubiquitous across southern Iron Age Britain, extending as far west as the Welsh borders (Cunliffe 2010, 411), although Romano-British examples have been reported, e.g. Lower Cambourne, Cambridgeshire (Wright *et al.* 2009, 18) and Laurel Farm, Thorpe St Andrew, Norfolk (Bishop and Proctor 2011, 74). Traditionally, interpretations of these structures include watchtowers, excarnation platforms, shrines, dwellings and granaries (Bersu 1940; Stead 1968; Wainwright 1968, 1970; Ellison and Drewett 1971; Stanford 1974, 1981) (after Poole 1984, 87), although the latter is more generally accepted. Alternatively, it is possible that the gullies surrounding Structures 4-6 were themselves structural, marking the positions of fencelines or 'walls', although this cannot be proven. Two Iron Age drip-gullies from the site of Fairlop Quarry, Romford were interpreted as possibly structural (Stone 2008, 4); both lacked accompanying postholes and were likened to similar features from Little Waltham, Essex (Drury 1978). It is possible that such features fall within the category of 'ring-groove houses' as outlined by Cunliffe (2010, 273), though such an interpretation is less likely in relation to the remains outlined above.

The Roman Sub-Phase 5 pits

With the exceptions of those described above (F4316 and F4328), fewer than half of the 24 Roman Sub-Phase 5 pits were grouped into pairs or clusters.

Grouped Roman Sub-Phase 5 pits

One possible pit cluster (Table 85) and two pairs of pits (Tables 86 and 87) were assigned to this sub-phase. Pits F2659 (Grid Square P20-Q20), F2669 (Grid Square Q20) and F2695 (Grid Square P19-P20; Table 85) were located towards the far northern corner of the northern quadrant (Fig. 139). Pits F2659 and F2669 were both sealed by Roman Sub-Phase 5 Spread L2665, while F2695 was cut through this material. As such, uncertainty remains regarding the precise contemporaneity of these features. F2695 yielded the only notable finds, including 22 sherds (307g) of Roman pottery (including two mid-3rd to 4th century examples), worked stone (3039g), CBM (639g), Fe (53g), slag (65g) and shell (131g). The primary fill of Pit F2695 (L2696) also yielded a biconical, shale spindle-whorl (SF70), while secondary Fill L2697 contained a complete copper alloy hairpin belonging to Cool's (1990) group 10a (Cooper this report – *The small finds*). F2695 also yielded a sizable faunal assemblage (6235g), comprising elements of cattle, horse, sheep/ goat, pig, large terrestrial mammal and medium terrestrial mammal, and displaying evidence of canid gnawing and butchery (Cussans 2012). A horse metatarsal from this feature had been cut across its distal end (Curl and Cussans this report – *The animal bone*). During excavation this feature was interpreted as some form of 'extraction' or quarry

pit. If correct, the deposition of the above material will have occurred once the useful 'life' of F2695 had come to an end.

Feature	GS	Size (m)	Plan	Profile	Base
2659	P20 - Q20	? X 0.68 x 0.68	Sub-circular	Gentle	Concave
2669	Q20	1.16 x 0.69 x 0.44	Sub-circular	Gentle	Concave
2695	P19 - P20	4.86 x 6.48 x 1.16	Sub-circular	Gentle	Concave

Table 85: Roman Sub-Phase 5 pit cluster

Intercutting Pits F4206 and F4208 (Grid Square Y10; Table 86) were located in the far eastern corner of the south-eastern site quadrant (Fig. 140). These features were also intercut with Posthole F4210, with which they may have formed a feature cluster. None of these features yielded finds, however, and their function remains uncertain. All three were truncated by Roman Sub-Phase 6 Ditch F3789 (Grid Square X11-Y9), however, and were tentatively phased on the basis of this relationship.

Feature	GS	Size (m)	Plan	Profile	Base
4206	Y10	? x 0.56 x 0.18	Sub-circular	Moderate	Flat
4208	Y10	0.18 x 0.18 x 0.64+	Sub-circular	Near vertical	Unknown

Table 86: Roman Sub-Phase 5 pit pair (1 of 2)

The second pair of Roman Sub-Phase 5 pits was also located within the south-eastern quadrant (Fig. 140). Pits F5031 and F5036 (Grid Square U8; Table 87) were located almost equidistant between Structures 4 and 5 (see above), to the south-west of the 'ladder' system of enclosures. F5036 slightly truncated Ditch F3549 (=5107; Grid Square Q5-W11). Of this pair, only F5031 yielded finds, comprising three sherds (33g) of Roman pottery (not closely datable) and 110g of animal bone. Both pits contained identical individual fills however, and were tentatively phased based on their stratigraphic relationships.

Feature	GS	Size (m)	Plan	Profile	Base
5031	U8	1.16 x 0.82 x 0.36	Sub-circular	Moderate	Concave
5036	U8	2.56 x 1.08 x 0.44	Oval	Steep	Concave

Table 87: Roman Sub-Phase 5 pit pair (2 of 2)

Isolated Roman Sub-Phase 5 pits

Of the remaining pits (Table 88), only two yielded closely datable pottery assemblages that tallied (broadly) with the established date range for Roman Sub-Phase 5. Pit F4044 contained a single Roman pot sherd (19g) dated between the mid-2nd and 3rd centuries, while F4437 (GS M9 - M10) yielded four 3rd to 4th century sherds (25g). An additional five pits yielded residual or more broadly dated pottery, while eight yielded either no pottery or no finds of any description. However, all of these were either stratigraphically secure within this sub-phase or displayed close spatial associations with other Roman Sub-Phase 5 features. Seven of these pits were either adjacent to or physically related to one or more Roman Sub-Phase 5 ditches/ gullies. Two finds of particular note are fragments of blue-green Roman bottle glass, including the top of a handle, from Fill L1856 (Seg.B) of Pit F1854 (Grid Square M15), similar to Roman Sub-Phase 3 and 4 examples from the site (Cooper this report – *The small finds*). The cast bottle form that these two fragments derive from dates to the late 1st or 2nd century however (*ibid.*), suggesting that they were residual within L1856.

Two isolated Roman Sub-Phase 5 pits were sampled. Environmental sampling of Pit F1854 (L1856B; Grid Square M15) yielded a reasonable quantity of indeterminate cereal grains, while identified cultivars included hulled barley and wheat (sp.) (Summers this report – *The carbonised plant macrofossils and charcoal*). Wild taxa were sparse and included cabbage/ mustard (*Brassica/ Sinapis*), while identified boreal species included hawthorn (*Crataegus* sp.) (*ibid.*). Charcoal (<2mm) was present within the sample and archaeological mollusca were abundant. The environmental sample from Pit F4657 (L4658; Grid Square S15) was far more significant however. Indeterminate cereal grain was abundant from this feature, while identified taxa included barley (sp.) and wheat (sp.) (*ibid.*). A large quantity of carbonised cereal chaff was also recorded, indicating the bulk processing of crops, potentially linked to the production of an exportable commodity (*ibid.*). Cereal chaff was also commonly used as fuel during the Romano-British period (Fryer 2011, 86-7; Hillman 1981, cited in Van der Veen 1989, 305), a practise attested at the nearby Maltings site (Fryer 2004, 53-4). Alternatively, large quantities of carbonised chaff may simply indicate the burning and disposal of processing waste (Summers this report – *Carbonised plant macrofossils and charcoal*). Charcoal, both <2mm and >2mm in size, was abundant in the sample.

Feature	GS	Size (m)	Plan	Profile	Base
1852	N15	0.60 x 0.52 x 0.24	Oval	V-shaped	Pointed
1854	M15	2.25+ x 0.95 x 0.43	Sub-rectangular	Steep	Concave
2317	P13	0.24 x 0.28 x 0.12	Sub-circular	Gentle	Concave
2469	P14 - P15	1.10+ x 0.68+ x 0.80	Oval	Steep	Concave
2532	N13	0.90 x 0.84 x 0.65	Circular	U-shaped	Flattish
3418	R16	0.64 x 0.55 x 0.22	Oval	Moderate	Concave
3481	P9 - Q9	1.85 x 0.87 x 0.24	Oval	Steep	Flat
3529	Q8	1.82 x 0.94 x 0.52	Truncated	Gentle	Concave
3953	M8 - N8	1.15 x 0.48+ x 0.22	Unknown	Gentle	Irregular
4044	K8	? x 0.35 x 0.39	Rectangular	U-shaped	Flat
4437	M9 - M10	0.98+ x 0.74 x 0.60	Circular	Very steep	Concave
4467	L11	3.15 x 1.6 x 0.56	Sub-rectangular	Moderate	Concave
4657	S15	1.89 x 0.45 x 0.16	Sub-oval	Gentle	Concave
4790	V14	1.20 x 0.66 x 0.41	Oval	Steep	Flattish
5105	W11 - X11	1.50 x 1.98 x 0.40	Sub-oval	Moderate	Flat

Table 88: Isolated Roman Sub-Phase 5 pits

Only one Roman Sub-Phase 5 pit (F3481; Grid Square P9-Q9) was identified within the confines of a contemporary enclosure. This feature occupied the far western corner of Enclosure 30 within the Roman Sub-Phase 5 'ladder' system (south-western quadrant). F3481 was devoid of finds however and its function remains unknown. One find of note was recovered from Fill L2533 of isolated Pit F2532 (Grid Square N13), however, comprising a single fragment of upper quernstone in Mayen lava, similar to examples from Roman Sub-Phases 1 and 6, with an extrapolated diameter of 420mm (Cooper this report – *The small finds*).

The Roman Sub-Phase 5 postholes

The remaining Roman Sub-Phase 5 postholes⁷ (F2266 (Grid Square G8) and F3422 (Grid Square R16); Table 89) contained no finds and were (tentatively) phased according to their stratigraphic relationships. None displayed possible structural affinities with any other, contemporary feature and their functions remain unknown.

⁷ F4210, F5141, F5143 and F5153 are discussed elsewhere

Feature	GS	Size (m)	Plan	Profile	Base
2266	G8	0.43 x 0.28 x 0.30	Oval	U-shaped	Concave
3422	R16	0.17 x 0.17 x 0.18	Sub-circular	Very steep	Concave
4210	Y10	0.12 x 0.12 x 0.40	Sub-circular	Near vertical	Concave
5141	V9	0.66 x 0.58 x 0.30	Sub-square	U-shaped	Concave
5143	V9	0.46 x 0.33 x 0.30	Sub-rectangular	Moderate	Concave
5153	V9	0.68 x 0.65 x 0.33	Oval	Moderate	Concave

Table 89: Roman Sub-Phase 5 postholes

The Roman Sub-Phase 5 layers/ spreads

Of the four Roman Sub-Phase 5 layers/ spreads (Table 90), only L3295 (=3296; Grid Square R17) yielded closely datable pottery, comprising 25 mid/ late 3rd to 4th century sherds (470g). This assemblage supports a mid-3rd to early 4th century date range for Roman Sub-Phase 5 activity. Other finds from this feature are tabulated below. L3295 (=3296) was only partially exposed during the excavation, however, and occupied an area of the site containing few contemporary features; possible remnants of enclosures were present a short distance to the south-east and south-west. Similarly, the full extent of Layer F4202 (Grid Square Y10) and Spread F4493 (Grid Square L11-L12) remains unknown. These contexts were devoid of finds and were only tentatively phased based on their stratigraphic relationships. Spread L2265 was the only such Roman Sub-Phase 5 context to be entirely exposed and, despite lacking diagnostic finds, was securely phased based on its stratigraphic relationship with Pits F2659, F2669 and F2695 (see above – *Grouped Roman Sub-Phase 5 pits*). L2265 extended across an area of approximately 35m².

Context	Description	GS	Pottery	CBM	Animal Bone	Other Finds
2665	Spread	P19 - P20 & Q20	-	-	-	Fe (38g), slag (51g)
3295=3296	Spread	R17 (not fully exposed)	25 sherds (470g)	29g	188g	Fe (10g)
4202	Layer	Y10 (not fully exposed)	-	-	-	-
4493	Spread	L11 - L12 (not fully exposed)	-	-	-	-

Table 90: Roman Sub-Phase 5 layers/ spreads

Focuses of Roman Sub-Phase 5 activity

The distribution of CBM, when plotted by weight (Fig. 141), is patchier than in earlier Romano-British sub-phases, although the greatest weights of material (>1501g per grid square) were again in the northern quadrant. These comprised comparatively modest 'dumps' of material however with no direct structural affiliations. Of the store house/ granary structures identified in the south-east quadrant, only Structure 4 features yielded CBM (between 1g and 250g). It was not anticipated however that such structures would include any great CBM component (e.g. Cunliffe 2010, 411), other than perhaps post packing material.

The western quadrant yielded almost no CBM, an interesting point given the vastly increased level of activity in this area during the mid-3rd to early 4th centuries. It must be surmised therefore that Roman Sub-Phase 5 Enclosure System 2 was not associated with structures, at least not any with a large CBM component, nor were 'open' features in this area of the site used for the disposal of CBM transported in from other parts of the landscape.

The general distribution of pottery by weight (Fig. 142) indicates a more-or-less even level of activity across the excavated area. Particular concentrations (>1001g) are evident in Grid Squares N13 and Q16 in the northern quadrant, yielded by the fills of

Ditch F2499 (=2530), the north-western boundary of Enclosure 32 (part of the Roman Sub-Phase 5 'ladder' system of enclosures), and Gullies F3186 and F3188. A further three grid squares (E6, E8 and P15) yielded between 715g and 1000g of pottery, whilst two (M9 and U9) yielded between 501g and 750g.

Overall, the pattern of pottery discard across the site attests to a modest, largely uniform level of human activity across the excavated area with no particular focus(s).

The nature of Roman Sub-Phase 5 activity

Unlike the preceding Roman sub-phases, relatively few features were encountered within the northern quadrant of the site. In fact, this sub-phase of Roman occupation appeared to encompass a southward shift in activity away from the neighbouring fen-edge. Further north, the cessation of Romano-British activity at the Maltings site (MNL 502) is inferred around the mid-3rd century (Bales 2004, 3), perhaps linked to a widely attested rise in Fenland water levels at this time (e.g. Upex 2008, 176). Environmental evidence from subsequent Roman Sub-Phase 6 does suggest seasonal inundation in some areas of the site, in contrast to the 'moist' grassland conditions of earlier Roman Sub-Phase 2 (Summers this report – *The terrestrial molluscs*).

A clear system of rectilinear, ditched enclosures and trackways (Roman Sub-Phase 5 Enclosure System 1), seen to develop during Roman Sub-Phase 3 and likely extant throughout the intervening period, was once again present within the south-eastern and south-western quadrants. The major alignments of this system were identical to those of Roman Sub-Phase 3 Enclosure System 4, although the enclosures appeared more formal in their layout, apparently forming a 'ladder' system similar to that reported from Childerley Gate, Cambridgeshire (Abrams and Ingham 2008, 52ff), c. 39km to the south-west. Like the Childerley Gate example, this system of enclosures was bounded on at least one side by a droveway or trackway (*ibid.* 55).

This sub-phase also witnessed the first clear system of ditches and gullies within the western quadrant of the site (Roman Sub-Phase 5 Enclosure System 2). Although individual enclosures proved difficult to define, several substantial boundary features and some tentative enclosed areas were apparent, including one measurable example (Enclosure 34). This area of the site also contained a series of contemporary close-set ditches and gullies that may have represented parts of a complex livestock control system, early within the immediate stratigraphic sequence. However, only the possible trackway identified in the far north of the western quadrant appeared to continue into the main excavation area.

The Roman Sub-Phase 5 pits and postholes, bar those associated with Structures 4-6, did not form any major clusters. Most were isolated features, some of which were closely related to the contemporary enclosure systems. Large sub-circular Pit F2695 in the far north of the site (Grid Square P19-P20) was thought to constitute a quarry or 'extraction' pit. Environmental sampling of Pit F4657 (Grid Square S15) yielded abundant carbonised cereal grain and large quantities of chaff, indicative of large-scale crop processing at the site, potentially linked to the production of an exportable commodity (Summers this report – *The carbonised plant macrofossils and charcoal*).

The burnt chaff may also constitute evidence of fuel use and/ or waste disposal. The storage of processed/ part-processed cereals and other possible foodstuffs on the site at this time is also suggested by three possible four-post structures (Structures 4-6) located in the south-eastern quadrant. This building form is most commonly associated with the 'raised' storage of grain or other perishable commodities.

The Roman Sub-Phase 5 animal bone assemblage was again dominated by cattle followed by sheep/ goat, though the latter were less common than in preceding sub-phases (Curl and Cussans this report – *The animal bone*). Porcine remains were scarce (only slightly more frequent than deer; *ibid.*). Worked antler, including a naturally shed tine, was also present and butchered post-cranial elements of deer were also recorded, indicating hunting for meat (*ibid.*). Bird remains comprise a few fowl and goose elements (*ibid.*). An incomplete swan ulna had been partly worked, perhaps for a flute or handle (*ibid.*).

4.2.6 Roman Sub-Phase 6 (early to mid/ late 4th century AD)

Summary

Roman Sub-Phase 6 (Fig. 143) at the former Smoke House Inn spanned the early to mid/ late 4th centuries AD. The most prominent feature of this sub-phase was a massive enclosure/ field (Enclosure 35) that superseded the earlier Roman Sub-Phase 5 'ladder' system and traversed the south-eastern, south-western and northern quadrants. A possible livestock pen/ race was identified close to the south-eastern edge of Enclosure 35, although molluscan evidence from Layer L3947, c. 80m to the east, was not suggestive of grazing activity. However, the Roman Sub-Phase 6 animal bone assemblage yielded all major 'farmyard' species. At least four further enclosures were identified.

Four structures were also present within the 4th century landscape including Structure 10, a possible roundhouse located in the western quadrant. The remaining structures comprise a post-built store house or granary and two possible livestock pens, further attesting to a continuation of agricultural activity in the later Romano-British period. Various groupings of pits and postholes/ stakeholes were also evident.

The Roman Sub-Phase 6 ditches and gullies

A series of substantial ditches and gullies, some of which formed clear double-ditched boundaries or narrow trackways, were seen to subdivide the northern, south-eastern and south-western quadrants, forming an obvious system of very large rectilinear enclosures (Roman Sub-Phase 6 Enclosure System 1; Figs. 144-160). Numerous lesser ditches and gullies were also present in these areas, some of which may have represented short lengths of trackway or minor divisions of space within the larger enclosures. In contrast, the layout of ditches and gullies in the western quadrant was far less coherent. This may have been due to later/ modern disturbance, although it is notable that Roman Sub-Phase 5 features in this area were not similarly affected.

Roman Sub-Phase 6 Enclosure System 1

This clear system of substantial ditches and gullies (Table 91) traversed the northern, south-eastern and south-western quadrants of the site, and defined at least five substantial enclosures (Figs. 144-160). Numerous smaller enclosed areas and possible sections of trackway were also apparent, most notably in the northern and south-western quadrants. Several of the features forming this enclosure system displayed signs of recutting and various contemporary arrangements of pits and postholes/ stakeholes (including individual features) were present.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1374=1400	Ditch	J13-L16	NE-SW & NNE-SSW	28.00 x 1.86 x 0.64	Linear	U-shaped	Concave
1421	Gully	L15-L16	NE-SW	2.24 x 0.68 x 0.18	Linear	Steep	Flat
1446	Gully	K16-L16	NW-SE	10.94 x 0.59 x 0.60	Linear	U-shaped	Flat
1511	Ditch	K15-L17	NE-SW	22.60 x 0.74 x 0.32	Linear	Moderate	Flat
1729=1760	Ditch	L18-R14	NW-SE	46.39 x 2.95 x 0.77	Linear	Gentle	Flattish
1798	Gully	M15-N15	NW-SE	6.99 x 0.70 x 0.18	Linear	U-shaped	Concave
1821	Gully	P14-P15	NE-SW & NW-SE	19.50 x 0.88 x 0.62	Linear	Moderate	Concave
1830	Ditch	N15	NE-SW	4.40+ x 0.61 x 0.20	Linear	Gentle	Flattish
1858	Ditch	L16-M17	NE-SW	10.02 x 2.02 x 0.53	Linear	U-shaped	Rounded
1913	Gully	P16-Q15	NW-SE	4.19+ x 0.58+ x 0.36+	Linear	Concave	Flat
1919	Ditch	P16-Q17	NNE-SSW	12.45 x 3.64 x 0.59	Linear	Moderate	Concave
2007	Gully	L17-M16	NW-SE	10.04 x 0.60 x 0.16	Curvilinear	U-shaped	Concave
2255=3612	Ditch	L11-U17	NE-SW	93.68+ x 1.63 x 0.49	Linear	U-shaped	Concave
2314=3663	Ditch	L11-U16	NE-SW	30.35 x 1.35 x 0.45	Linear	Moderate	Concave
2549	Gully	N11-P12	NE-SW	? x 0.23 x 0.11	Linear	Moderate	Flattish
2551=3525	Gully	N11-P12	NE-SW	? x 0.55 x 0.20	Linear	Moderate	Concave
3184	Gully	Q15-R16	Curvilinear	6.33+ x 1.00 x 0.30	Curvilinear	Moderate	Concave
3279	Gully	Q15-R17	Curvilinear	17.03+ x 1.70 x 0.65	Linear	Moderate	Concave
3394=3451	Ditch	P9-P10	Curvilinear	7.32+ x 1.11 x 0.40	Linear	Gentle	Concave
3457	Gully	N9-P8	NW-SE	8.57+ x 0.80+ x 0.39	Linear	Steep	Concave
3512	Ditch	Q7-R9	NE-SW	18.62+ x 1.75 x 0.18	Linear	Moderate	Flat
3514	Ditch	Q7-R8	NE-SW	19.46+ x 0.85 x 0.14	Linear	Gentle	Concave
3545	Ditch	R8-S7	NNW-SSE	15.64+ x 1.30 x 0.22	Linear	Gentle	Flat
3552	Gully	R8-S6	NW-SE & c. N-S	18.95+ x 1.03 x 0.17	Linear	Gentle	Concave
3789	Ditch	X11-Y9	NW-SE	31.43+ x 2.05 x 0.46	Linear	Moderate	Concave
4073	Ditch	J9-K9	NNW-SSE	9.60+ x 0.96 x 0.46	Linear	Moderate	Concave
4094=4252	Ditch	K10-M10	NE-SW	1.10 x 0.77 x 0.30	Linear	Moderate	Flat
4106=4250	Ditch	J8-M10	c. NE-SW	? x 0.92 x 0.50	Linear	Moderate	Concave
4137	Ditch	K12-M10	NW-SE	23.31+ x 1.10 x 0.45	Linear	U-shaped	Concave
4359	Ditch	S7-T8	NE-SW	11.07+ x 0.94 x 0.30	Linear	Moderate	Flat
4375=4516	Gully	J11-L11 & L11-M10	NW-SE & ENE-SWS	28.21+ x 1.09 x 0.48	Linear	Moderate	Concave
4418	Gully	L9-N10	ENE-WSW	14.66 x 0.88 x 0.44	Linear	U-shaped	Concave
4566	Gully	K10-L11	NE-SW	19.21 x 1.00 x 0.45	Linear	U-shaped	Concave
4962	Ditch	T11-U11	NE-SW & NW-SE	1.32 x 1.30 x 0.45	Linear	Steep	Flattish
5022	Ditch	T10-T11	NW-SE	? x 1.60 x 0.56	Linear	Steep	Concave
5067	Ditch	U10-V11	NE-SW	? x 2.20 x 0.54	Linear	Moderate	Concave
3791=5098	Ditch	U10-X12	NE-SW	? x 2.97 x 0.55	Linear	Steep	Flat

Table 91: Principal features comprising Roman Sub-Phase 6 Enclosure System 1

Parallel Ditches F2255 (=3612; Grid Square L11-U17) and F2314 (=3663; Grid Square L11-U16) formed a double-ditched boundary running for some 100m (north-east to south-west) across the northern and south-western quadrants of the site (Fig. 144). These features may also have represented the remains of a narrow path or track suggested by the c. 1m-wide space separating them along much of their length; their central sections merged however. This boundary was the longest to be identified within any of the Roman sub-phases, although no apparent 'entrance' or access point existed along its length. The use of access bridges cannot be

discounted however. The alignment of F2255 (=3612) and F2314 (=3663) was exactly mirrored to the south-east by a shorter length of double ditched boundary, comprising Ditches F3512 (Grid Square Q7-R9) and F3514 (Grid Square Q7-R8), and Ditches F5067 (Grid Square U10-V11) and F3791 (=5098; Grid Square U10-X12) (Fig. 144). Although separated by the tree preservation area, a relationship between these features appeared highly likely. Together, these two extensive boundaries partially enclosed an area of at least 5000m² (Enclosure 35), entirely encompassing previously excavated site MNL 608. The north-eastern boundary of Enclosure 35 was beyond the excavated area, although its south-western boundary was incompletely defined by Ditch F4137 (Grid Square K12-M10), the stratigraphically latest of an intercutting group of linear features in the south-western quadrant (see below). The scale of Enclosure 35 might indicate the long-term corralling of livestock; animal husbandry is also hinted at by the presence of a possible pen or 'race' along the south-eastern edge of this enclosure (see below).

Of the above boundary features, parallel Ditches F2255 (=3612) and F2314 (=3663) yielded the most finds. The combined pottery assemblage from this pairing comprises 173 sherds (3410g) and includes both intrusive and residual material. In addition to numerous mid-2nd to 4th century sherds, F2314 (=3663) yielded five residual 2nd to early/ mid-3rd century examples. Ditch F2255 (=3612) also yielded 2nd to 4th century material (five sherds), as well as seven 4th century sherds and one intrusive post-medieval sherd from Fill L3613 (Seg.G). Fill L2256 (Seg.A) of F2255=3612 also yielded 64 late 2nd century sherds (1943g), although this section of the ditch truncated Roman Sub-Phase 2 Ditch F2253 (=2319=3612; Grid Square P13-Q15). A worn fragment of quernstone in Mayen lava was also recovered from Fill L2256 (Seg.E) of Ditch F2255 (=3612) (Cooper this report – *The small finds*). This is similar to an example from Roman Sub-Phase 6 Pit F3599 (*ibid.*). Fill L2256 (Seg.A) of this feature also yielded a plano-convex fragment of quernstone in distinctive Hertfordshire Puddingstone – the only fragment of its type recovered (*ibid.*). These finds suggest possible small-scale crop processing associated with Roman Sub-Phase 6 Enclosure System 1. Ditch F2255 (=3612) also contained 1727g of animal bone, comprising elements of cattle, horse, sheep/ goat, pig, large terrestrial mammal and medium terrestrial mammal, and including evidence of canid gnawing (Cussans 2012). A single neonate cattle element was noted (*ibid.*), while two elements of horse produced calculated heights of 15.7-8 hands (Curl and Cussans this report – *The animal bone*). Ditch F2314 (=3663) yielded 2764g of CBM. Ditches F3512 (Grid Square Q7-R9), F3514 (Grid Square Q7-R8), F5067 (Grid Square U10-V11) and F3791 (=F5091; Grid Square U10-X12) were devoid of closely datable pottery and were assigned to Roman Sub-Phase 6 based on their stratigraphic relationships.

The south-western termini of parallel Ditches F2255 (=3612; Grid Square L11-U17) and F2314 (=3663; Grid Square L11-U16) cut perpendicular Gully F4459 (Grid Square K12-L11) (Fig. 144). This feature truncated Roman Sub-Phase 5 Gully F4461 (Grid Square K12-M10), although did not yield closely datable Roman pottery. Immediately to the south-west lay possible Boundary Ditch F4137 (Grid Square K12-M10). This north-west to south-east oriented feature truncated the north-eastern terminus of Gully F4566 (Grid Square K10-L11), which appeared to loosely continue the north-east to south-west alignment of Ditch F2314 (=3663), though only for c. 11m. In turn, F4566 cut an interleaved group of four ditches and

gullies (F4375 (=4516; Grid Square J11-L11 and L11-M10), F4377 (=4581; Grid Square L11-M10), F4510 (Grid Square J11-K11) and F4573 (Grid Square K12-M10)), the stratigraphically earliest of which (Ditches F4377=4581 and F4573) were broadly parallel to possible boundary Ditch F4137. Later Ditch F4375 (=4516) turned sharply to the west-south-west in Grid Square K11/ L11 and may have marked the corner of a small enclosure (Enclosure 36), predating both Gully F4566 and Ditch F4137 (see below); the 'return' of this feature was partially truncated by short Gully F4510 (Grid Square J11-K11), possibly forming a short section of 'double-ditched' boundary; this remains tentative however.

Two of these six interleaved features yielded datable pottery assemblages which tally with the prescribed date range for Roman Sub-Phase 6. Ditch F4375 (=4516; Grid Square J11-L11 and L11-M10) produced 22 sherds (899g) including four 4th century examples, while Gully F4566 (Grid Square K10-L11) contained eight late 3rd to 4th century sherds (100g). In contrast, F4375 (=4516) also yielded four residual mid to late 2nd century sherds, while nine residual early 2nd to early 3rd century sherds were found in Ditch F4137. Similarly, in addition to two sherds (21g) of Roman pottery (not closely datable), Gully F4510 (L4511 (Seg.A) yielded a single residual Bronze Age sherd (6g). These features truncated earlier Roman activity however and nearby Period I Pits F4502, F4506, F4522 and F5470 (Grid Square K11-L11) may have been the source of the Bronze Age material. However, the closest prehistoric feature to actually yield Bronze Age pottery was Pit F4303 (Grid Square K9 & K10-L10), some 12.5m to the south-east. Ditch F4375 (=4516) also yielded 1979g of animal bone comprising elements of cattle, horse, sheep/ goat, dog, large terrestrial mammal, medium terrestrial mammal and badger (*Meles meles*), and including evidence of canid gnawing and a partially worked lumbar vertebra (large terrestrial mammal) (Cussans 2012). The badger remains comprise a pair of jaws (*ibid.*).

Ditch F4375 (=4516; Grid Square J11-L11 and L11-M10) appeared to partly constitute a recut of north-west to south-east aligned Ditches F4377 (=4581; Grid Square L11-M10) and F4573 (Grid Square K12-M10) (see above). This later feature, partially truncated by parallel Gully F4566 (Grid Square K10-L11), appeared to form the north-eastern edge of a small rectilinear enclosure (Enclosure 36), delineated to the south-east by Ditch F4106 (=4250; Grid Square J8-M10) (Fig. 144). The latter, aligned c. north-east to south-west, was itself a partial recut of earlier Ditch F4094 (=4252; Grid Square K10-M10) and Gully F4242 (Grid Square K9-M10). The south-western boundary of Enclosure 36 may have constituted Ditch F4073 (Grid Square J9-K9) although little of this feature lay within the excavated area. The internal area of Enclosure 36 would have measured at least c. 300m².

The broadly north-eastern course of Ditch F4106 (=4250; Grid Square J8-M10) may have been continued by Gullies F4133 and F4449 (Grid Square M10), though both had been heavily disturbed by modern activity. Short Gully F4248 (Grid Square K9-L9) was also tentatively associated with Enclosure 36, potentially forming a short segment of double-ditched boundary with Ditch F4106 (=4250; Grid Square J8-M10). F4248 yielded two sherds (8g) of residual 2nd century pottery and a small 'chip' of Mayen lava, similar to an example from Roman Sub-Phase 6 Ditch F1727 (not on plan; Cooper this report – *The small finds*).

Two of the features forming Enclosure 36 (Ditches F4073 and F4106 (=4250)), yielded tightly dated pottery assemblages which broadly agree with the prescribed date range for this sub-phase. F4073 contained five sherds (92g) of Roman pottery including four early/ mid-4th century sherds, while Ditch F4106 (=4250) yielded a total of 39 sherds (934g) including eight 3rd to 4th century sherds and eight late 3rd to 4th century sherds. However, this feature also yielded 12 residual mid to late 3rd century sherds from L4107 (=4251) (Seg.C) and ten 3rd century sherds from L4107 (=4251) (Seg.B), while four 2nd to early 3rd century sherds were recovered from Ditch F4094 (=4252; secondary Fill L4095 (Seg.C)). However, this area of the south-western quadrant contained a high density of earlier Roman features and as such, a degree of residuality is to be expected. Other finds of note from these boundary features comprise 2132g of animal bone from Ditch F4073 and 3780g of animal bone from F4106 (=4250). These combined faunal assemblages comprise elements of cattle, horse, red deer, dog, large terrestrial mammal and medium terrestrial mammal, and include evidence of butchery (Cussans 2012). The two red deer limb elements were from a very young, possibly neonate individual (*ibid.*). Fill L4107 (=4251) of Ditch F4106 (=4250 (Seg.B)) also yielded a fragment from the circumference of a quernstone in Mayen lava (Cooper this report – *The small finds*), and two fragments (359g) of Fe slag (Newton this report – *The slag*). The larger piece, weighing 317g, may be smelting furnace slag or a piece of smithing hearth bottom (*ibid.*).

Roman Sub-Phase 6 Ditch F4345 (Grid Square J10-K9) and Gully F4079 (Grid Square J10-K10) were located within the confines of Enclosure 36. Both features were 'L'-shaped and appeared to interlock, possibly forming a small pen measuring c. 21m² internally. However, although F4079 was stratigraphically later than the surrounding enclosure boundaries, F4345 appeared significantly earlier; this feature was truncated by the western terminus of Ditch F4094 (=4252; Grid Square K10-M10). As such, these features appear not to have been precisely contemporary. Both contained similar fills however and yielded comparable finds; neither contained tightly datable pottery.

A partly intercutting group of four Gullies (F4500 (Grid Square J11-K11), F4504 (Grid Square J11-K11), F4508 (Grid Square J11-K11) and F4518 (Grid Square K11-K12)) was present immediately to the north-west of Gully F4375 (=4516; Grid Square J11-L11 and L11-M10). This broadly north-east to south west aligned 'group' was obscured in each direction by modern disturbance and the excavation edge, but was possibly contemporary to Enclosure 36. The relationship of this group to neighbouring Roman Sub-Phase 6 features remains uncertain however. Of this group, Gully F4508 yielded the only tightly datable pottery assemblage, comprising seven 3rd to 4th century sherds (147g). The more broadly dated assemblage of ten sherds (197g) from Gully F4518 spans the 2nd to 4th centuries AD.

Gully F4418 (Grid Square L9-N10) ran parallel to the north-eastern section of Ditch F4106 (=4250; Grid Square J8-M10), south-east of Enclosure 36 (Fig. 144). These features were separated by a c. 1m gap and may have delineated a short section of narrow trackway or double-ditched boundary. Some 10-16m of this possible trackway/ boundary survived. The modest finds assemblage from F4418 includes three sherds (43g) of late 3rd to early 4th century pottery.

The area immediately south of Gully F4418 (Grid Square L9-N10), measuring approximately 625m², contained a number of disarticulated Roman Sub-Phase 6 ditches and gullies (Table 92; Fig. 144). Several of these features, which numbered 13 in total, were intercutting and five yielded closely datable pottery assemblages which tally with the prescribed date range for this sub-phase. Broadly parallel Ditches F3889 (Grid Square M8-N9) and F3957 (Grid Square M8-N8), spaced c. 1.5m apart, respectively yielded three sherds (19g) and five sherds (113g) of 3rd to 4th century pottery. Similarly dated pottery (1 sherd; 9g) was recovered from Gully F4006 (Grid Square L8-L9), while two sherds (39g) of 4th century pottery were found in Gully F4042 (Grid Square M9). The greatest pottery assemblage from this group (by weight and count) was yielded by Gully F4056 (Grid Square M9-M10). The 26 sherds (525g) of pottery from this feature include six 3rd to 4th century sherds and 14 4th century sherds. Other notable finds include comparatively large animal bone assemblages from Ditches F3903 (Grid Square M8-M9; 1065g) and F3957 (Grid Square M8-N8; 1075g), and Gully F4042 (Grid Square M9; 942g). The combined faunal assemblages include elements of cattle, horse, sheep/ goat, pig, large terrestrial mammal and medium terrestrial mammal (Cussans 2012). One sheep skull from Gully F4042 has a very large horn-core (Curl and Cussans this report – *The animal bone*); this was unworked but may have been deliberately retained for other purposes (*ibid.*).

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
3885	Ditch	L7-M8	NE-SW	10.13+ x 0.70 x 0.29	Linear	U-shaped	Concave
3889	Ditch	M8-N9	ENE-WSW	8.97+ x 0.68 x 0.23	Linear	Moderate	Flat
3903	Ditch	M8-M9	Curvilinear	7.94 x 0.27 x 0.23	Curvilinear	Moderate	Concave
3916	Gully	L8-L9	Curvilinear	4.18+ x 0.57 x 0.23	Curvilinear	Moderate	Flattish
3951	Gully	M8-M9	ENE-WSW	36.91+ x 0.25+ x 0.06	Linear	Gentle	Concave
3955	Gully	M8-M9	ENE-WSW	37.28+ x 0.34 x 0.19	Linear	Moderate	Flattish
3957	Ditch	M8-N8	NE-SW	29.89+ x 0.70 x 0.47	Linear	Steep	Flat
3960	Gully	K8-L7	WNW-ESE	8.38+ x 0.70 x 0.28	Linear	Moderate	Concave
4004	Ditch	L9-M8	c. WNW-ESE	3.52+ x 0.48 x 0.26	Linear	Steep	Flat
4006	Gully	L8-L9	NE-SW	1.45+ x 0.20 x 0.06	Linear	Gentle	Concave
4042	Gully	M9	ENE-WSW	3.99+ x 0.65 x 0.36	Linear	Gentle	Concave
4046	Gully	K8	Curvilinear	4.35 x 0.33 x 0.21	Curvilinear	U-shaped	Flattish
4056	Gully	M9-M10	c. N-S	5.00+ x 0.40 x 0.52	Linear	Steep	Concave

Table 92: Disarticulated Roman Sub-Phase 6 ditches and gullies to the south of F4418

The heavily truncated nature of these 13 ditches and gullies hindered their interpretation. These features did not appear to form any clear landscape divisions. A very short section of Gully F4014 (Grid Square J8) was located c. 12.5m to the west of this 'group' but was devoid of finds. It is tentatively possible that these features, along with several nearby pits and postholes (see below) formed the remnants of structures although no clear building outlines were identifiable.

To the north-east, Roman Sub-Phase 6 linear features within large Enclosure 35 included intercutting Gullies F2549 (Grid Square N11-P12) and F2551 (=3525; Grid Square M11-P12; Table 91; Fig. 144). These features were devoid of finds but appeared to align with Ditch F4094 (=4252; Grid Square K10-M10) c. 4.4m to the south-west. F2549 and F2551 (=3525) did not align with the long (possible) double-ditched boundary formed by Ditches F2255 (=3612; Grid Square L11-U17) and F2314 (=3663; Grid Square L11-U16), to the north-west, although were approximately perpendicular to a substantial north-west to south-east aligned boundary chiefly represented by Ditch F1729 (=1760; Grid Square L18-R14). The latter was located to the north-west of Enclosure 35 and predated it. Other similarly

aligned Roman Sub-Phase 6 features in the northern quadrant included Gullies F1446 (Grid Square K16-L16) and F1798 (Grid Square M15-N15). It is possible that intercutting Gullies F2549 and F2551 (=3525) were related to these features, which may have comprised an earlier manifestation of Roman Sub-Phase 6 Enclosure System 1, albeit on a slightly different alignment.

Curvilinear Ditch F3394 (=3451; Grid Square P9-P10) and linear Gully F3457 (Grid Square N9-P8; Table 91) were located within the south-western half of Enclosure 35. The south-east sections of these features were roughly parallel, though they curved rapidly away from one another to the north-west. Both features lay approximately 10m to the north-west of Ditches F3512 (Grid Square Q7-R9) and F3514 (Grid Square Q7-R8) and the respective termini of all four features may have formed a broad entrance or access point (c. 10m wide). It is also tentatively possible that F3457 formed part of the south-western edge of Enclosure 35, defined to the north by F4137 (Grid Square K12-M10; see above). Although devoid of diagnostic finds, both Ditch F3394 (=3451) and Gully F3457 were stratigraphically secure within this sub-phase.

The remaining linear features within Enclosure 35 were Ditches F4885 (Grid Square V11-W11), F4962 (Grid Square T11-U11) and F5022 (Grid Square T10-T11), and Gully F5061 (Grid Square T10). These were located to the north-east of the tree preservation area and, bar F4885, were all partially obscured by this area and/ or previously excavated site MNL 608. Linear features within the latter were predominantly aligned north-west to south-east or north-east to south-west (Craven 2011, 49, fig. 15). The outline plan of this site (*ibid.*) shows one linear feature approximately aligned with the north-west to south-east section of Ditch F4962. However, the pottery from MNL 608 is predominantly 2nd to 3rd century in date (Benfield 2011, 59ff). Third to fourth century coarse wares were absent and later Roman (late 3rd to 4th century) fine wares formed less than three per cent of the assemblage (*ibid.* 60-1). This apparent lack of later Roman activity within MNL 608 is not surprising however given the relative scarcity of 4th century features within the confines of Enclosure 35 (Fig. 144).

Ditch F5022 ran perpendicular to Boundary Ditches F5067 (Grid Square U10-V11) and F3791 (=5098; Grid Square U10-X12) and, with Ditch F4962, appeared to form a semi-enclosed area (Enclosure 35a) within Enclosure 35 (Fig. 144). Enclosure 35a measured at least 100m² and was partially open to the north-east. The central section of Ditch F5022 cut largely obscured Gully 5061; only a c. 1.2m section of the latter was exposed within the excavated area. Ditch F4885 ran parallel to Ditch F3791 (=5098) and was likely related to this feature; the two were spaced c. 1.5m apart and may have represented a small livestock pen or 'race', or other partially enclosed space. Possibly contemporary Pit F5100 was located between these features towards the south-western end of F4885 (Grid Square V11; Table 113), and potentially marked the position of a gatepost or similar.

Two of the above features yielded closely datable pottery assemblages that tally with the prescribed date range for this sub-phase. Ditch F4885 (Grid Square V11-W11) yielded one 3rd to 4th century sherd (301g) and one 4th century sherd (15g), whilst Ditch F4962 (Grid Square T11-U11) contained 18 sherds (175g) including 15 3rd to 4th century sherds. The only other find of note is the head and upper shaft of a

copper alloy hairpin (SF137) from Fill L5062 of Gully F5061 (Grid Square T10; Cooper this report – *The small finds*). This is probably 2nd century in origin however (*ibid.*) and perhaps residual within this feature. Another tentative possibility is that it represents a particularly long-lived or 'curated' item. Pit F5100 (Grid Square V11) yielded just seven sherds (241g) of Roman pottery (not closely datable).

A small cluster of seven ditches and gullies (Table 93) was encountered a short distance to the south-east of Enclosure 35 in the south-western quadrant. These features may have predated Enclosure 35; Gully F3533 (Grid Square Q8-R7) was truncated by both Ditches F3512 (Grid Square Q7-R9) and F3515 (Grid Square Q7-R8). Parallel Ditch F3545 (Grid Square R8-S7) and Gully F3552 (Grid Square R8-S6) were spaced c. 1-2m apart and possibly represented a short section of trackway running north-west to south east for c. 15-19m and tentatively forming the south-western edge of a substantial rectilinear enclosure (Enclosure 37; see below). North-east to south-west aligned Ditch F4359 (Grid Square S7-T8) ran roughly perpendicular to Ditch F3545, the two possibly forming the southern corner of a small (unnumbered) enclosed space. The internal area of this ?enclosure measured at least 90m², though was largely obscured by the tree preservation area. A possible 1.5m-wide entrance existed between the adjacent termini of F3545 and F4359. Gully F3545 yielded the only closely datable pottery assemblage, including two late 3rd to 4th century sherds (43g), plus modest quantities of animal bone.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
3500	Ditch	Q8-R8	NE-SW	8.29+ x 0.66 x 0.49	Linear	Steep	Flat
3533	Gully	Q8-R7	c. NW-SE	8.71+ x 0.32 x 0.12	Linear	Gentle	Concave
3543	Ditch	R8-S8	NW-SE	8.16 x 1.11 x 0.40	Linear	Moderate	Rounded
3545	Gully	R8-S7	NW-SE	15.64+ x 1.30 x 0.22	Linear	Gentle	Flat
3547	Gully	R8-S8	Curvilinear	7.24+ x 0.78 x 0.16	Curvilinear	Gentle	Flat
3552	Gully	R8-S6	Curvilinear	18.95+ x 1.03 x 0.17	Curvilinear	Gentle	Concave
4359	Ditch	S7-T8	NE-SW	11.07+ x 0.94 x 0.30	Linear	Moderate	Flat

Table 93: Clustered ditches and gullies to the south-east of F3394 (=3451) and F3457

Substantial Ditch F3789 (Grid Square X11-Y9) was identified running north-west to south-east from the north-eastern section of Enclosure Ditch F3791 (=5098; Grid Square U10-X12) (Fig. 144). The north-western terminus of F3789 was slightly truncated by F3791 (=5098) and the two features were perpendicular to one another. F3789 was devoid of diagnostic Roman pottery and was tentatively assigned to Roman Sub-Phase 6 based wholly on its stratigraphic and spatial relationship to Enclosure 35. A single sherd (34g) of residual Bronze Age pottery was recovered from F3789 (Seg.A); the source of this material remains uncertain. The closest Period I feature, Pit F5136, was located c. 30m to the south-west (Grid Square U9-V9). It is possible that Ditch F3789, with the south-eastern boundary of Enclosure 35, formed the northern corner of a large rectilinear enclosure (Enclosure 37), only part of which lay within the excavated area (Fig. 144). The south-western edge of Enclosure 37 may have been marked by the short section of trackway formed by Gullies F3545 and F3552 (Grid Square R8-S7/ S8).

Two 'pairs' of gullies were also found to the south/ south-east of Enclosure 35. F3985 and F3987 (Grid Square Q5) were located towards the southern edge of the south-western quadrant, while F4311 (Grid Square T7-U7) and F4313 (GS U7) were found c. 38m to the east-north-east (south-eastern quadrant). All four gullies truncated earlier Roman Sub-Phase 5 features, though were devoid of diagnostic

finds; F4311 and F4313 contained no finds. These features were only tentatively assigned to this sub-phase based on their stratigraphic relationships.

A series of (mostly) aligned ditches and gullies (including those briefly discussed above) was recorded to the north-west of Enclosure 35 (Fig. 144). Although still thought part of Roman Sub-Phase 6 Enclosure System 1, the alignment of these features was marginally different to their southern counterparts. The longest boundary in this area, Ditch F1729 (=1760; Grid Square L18-R14), was truncated at its south-eastern end by both F2255 (=3612) and adjacent Ditch F2314 (=3663; Grid Square L11-U16; Enclosure 35). It is possible, based on this relationship, that the Roman Sub-Phase 6 ditches and gullies in the northern quadrant marginally predated Enclosure 35. It is equally possible however that these features were contemporary with those in the south-eastern and south-western quadrants. The 'radial' layout of the ditches and gullies towards the western edge of the northern quadrant, e.g. F1284 (Grid Square J13-L13) and F1361 (Grid Square K13), was reminiscent of earlier Romano-British features in this part of the site.

North-west to south-east aligned Ditch F1729 (=1760; Grid Square L18-R14) traversed the northern quadrant of the site, running between the excavation edge and the north-western edge of Enclosure 35. This feature appeared partially recut along its south-western edge by Gullies F1913 (Grid Square P16-Q15) and F2037 (Grid Square N17-P16), and was also cut by curvilinear Gully F3184 (Grid Square Q15-R16). F1729 (=1760) truncated Ditches F1761 (Grid Square M17-N17) and F1919 (Grid Square P16-Q17; see below). A partial recut of F1729 (=1760) was also recorded during the excavation (F1727) but was not planned. No break in F1729 (=1760), possibly indicative of an entrance or access point, was found. Of these features, only F1913 yielded tightly dated pottery; ten of the 17 Roman sherds (631g) from this feature are dated between the late 3rd and early 4th centuries AD. Gully F1913 also yielded residual late 1st to early/ mid-2nd century material however. Similar residual material was also recovered from F1729 (=1760; 22 early 2nd to late 2nd/ early 3rd sherds) and F3184 (14 early to mid-2nd century sherds). Nonetheless, the northern quadrant of the site contained a huge number of earlier Romano-British features, many of which were truncated by elements of Roman Sub-Phase 6 Enclosure System 1. The above features were largely assigned to this sub-phase based on their stratigraphic relationships.

Other notable finds from this group include 2055g of animal bone from Ditch F1729 (=1760). The assemblage comprises elements of cattle, horse, sheep/ goat, pig, dog, large terrestrial mammal and medium terrestrial mammal, and includes evidence of canid gnawing (Cussans 2012). One unfused cattle femur is notable for its large size, possibly indicating improved stock of prime meat age (Cussans *pers. comm.*). Stock improvements during the Roman period have been noted at various sites including Elms Farm, Essex (Albarella *et al.* 2008). The dog bones comprise the remains of at least two animals including one possible Italian Greyhound (Curl and Cussans this report – *The animal bone*). The fill of Recut F1727 (L1728 (Seg.B); not planned) also yielded a small chip of Mayen lava, similar to an example from contemporary Ditch F4248 (Cooper this report – *The small finds*).

Ditch F1858 (GS L16 - M17) was located c. 2m to the south-west of Ditch F1729 (=1760) (Fig. 144). This feature was perpendicular to the latter and, despite its

comparably short length, displayed similarities in plan to its neighbour; both also contained practically identical fills. The c. 2m gap between these features may have represented an access point and the alignment of F1858 may have been continued to the south-west by curvilinear Ditch F1374 (=1400; Grid Square J13-L16; see below). Finds from F1858 comprise just one sherd (3g) of Roman pottery and 185g of animal bone; this feature was phased based on its spatial relationship and similarities to Ditch F1729 (=1760).

Curvilinear Gully F3184 (Grid Square Q15-R16) truncated the south-western section of Gully F3279 (Grid Square Q15-R17) (Fig. 144). The latter, despite chiefly yielding residual late 1st to mid 2nd century pottery (11 sherds; 377g), truncated the fill of securely dated Roman Sub-Phase 5 Gully F3186 (Grid Square Q16-R16). F3279 turned gently through c. 45° in Grid Square R16 and may have represented the 'rounded' south-eastern corner of an ill-defined enclosure. Ditch F1919 (Grid Square P16-Q17), c. 10m to the north-west, appeared to mirror the south-western section of F3279 but was otherwise dissimilar. Ditch F1919 yielded a tightly dated pottery assemblage that complements the prescribed date range for Roman Sub-Phase 6; of the 40 pot sherds (1034g) recovered from this feature 25 are late 3rd to 4th century in date. Other notable finds from this ditch comprise part of an iron blade with a straight back, of Manning's Type 11a (SF27), from Fill L1920 (Seg.A) (Cooper this report – *The small finds*) and 3056g of animal bone from Segments B and E. The faunal assemblage comprises elements of cattle, horse, sheep/ goat, pig, dog, bird, large terrestrial mammal, medium terrestrial mammal and the metapodial of possible fox (*Vulpes vulpes*; Cussans 2012). The latter displays cut marks that might indicate skinning; other notable features of this assemblage include canid gnawing and scorch marks (*ibid.*). The bird remains are those of a small goose (*Anser/ Branta* sp.) perhaps comparable to the Brent Goose (Curl and Cussans this report – *The animal bone*). The Brent Goose (*Branta bernicla*) is a seasonal migrant, the 'dark-bellied' form of which overwinters in eastern and southern Britain, particularly in coastal areas of Norfolk and Essex, the Wash and in the Thames Estuary (Hart-Davis 2002, 299; www.rspb.org.uk).

Gully F1821 (Grid Square P14-P15; Table 91), approximately 8.3m south-west of F1919, appeared largely aligned with the latter, though turned sharply to the south-east within Grid Square N14. The resultant north-west to south-east section of F1821 measured c. 5m and appeared to align with Gully F1798 (Grid Square M15-N15), some 6m to the north-west (Fig. 144). Gully F1830 (Grid Square N15) was present c. 1.1m to the north-west of F1821 (north-east to south-west section) and mirrored this feature, possibly delineating a short section of narrow trackway or similar. No continuation of this alignment, bar broad Ditch F1919, was evident in either direction. Gully F1821 yielded a closely datable pottery assemblage that agrees with the date range for Roman Sub-Phase 6; the 20 sherds (298g) from this feature include 11 3rd to 4th century sherds and seven 4th century sherds. Other finds comprise 229g of animal bone, CBM (40g) and Fe (146g). Gully F1830 yielded just four sherds (138g) of Roman pottery (not closely datable) and 180g of CBM.

The north-west to south-east alignment of Gully F1798 (146g M15-N15) may have been continued to the north-west by Gully F1446 (146g K16-L16; Table 91; Fig. 144). However, these features were separated by c. 15m. Both gullies mirrored the alignment of Ditch F1729 (=1760), c. 18-21m to the north-east, and were possibly

also related to this feature. Alternatively, F1446 and F1798 may have related to Gully F2037 (recutting the south-western edge F1729=1760) to which they were far more similar in plan. In either case, these features appeared to partially enclose a rectilinear area (Enclosure 38) immediately to the south-west of F1729 (=1760; Fig. 144). The south-eastern edge of Enclosure 38 was delineated by the longer section of Gully F1821 (146g P14-P15; see above), while the north-western edge was marked by Ditch F1511 (146g K15-L17). The latter cut F1446, however, and may have been a later addition. The enclosure formed by these features measured at least 810m² (internally) and tentative access points were visible between the south-eastern terminus of F1798 and the south-western corner of F1821; and between the north-eastern terminus of the latter and the central section of Gully F1913 (Grid Square P16-Q15; see above). Both 'entrances' were c. 6m wide.

Gully F2007 (Grid Square L17-M16) ran north-west to south-east across the interior of Enclosure 38 and may have represented some form of internal division. This feature truncated stratigraphically earlier Ditch F1858 (Grid Square L16-M17; see above). Ditch F1489 (Grid Square J17-K16), located to the north-west of Gully F1446 (Grid Square K16-L16), may also have been related to Enclosure 38. This feature was largely obscured however and did not produce any closely datable pottery. Nonetheless, F1489 truncated Roman Sub-Phase 5 Ditch F1429 (=1814; Grid Square J16-N14 and N14-P15). In contrast, Gullies F1446 (Grid Square K16-L16) and F2007 (Grid Square L17-M16) respectively contained 4th century pottery (three sherds) and late 3rd to 4th century pottery (three sherds). The former also yielded two sherds of residual early 2nd to early 3rd century pottery, while two late 1st to 2nd century sherds were recovered from Ditch F1511 (Grid Square K15-L17). Any one of the numerous earlier Roman features in the vicinity could have been the source of residual material. No other finds of note were recovered from these features.

Substantial Ditch F1374 (=1400; Grid Square J13-L16; Table 91) lay to the south of Gully F1446 (Grid Square K16-L16) and Ditch F1511 (Grid Square K15-L17) (Fig. 144). This gently curving feature ran for c. 28m across the northern quadrant, perpendicular to contemporary Gullies F1446 to the north and F1284 (Grid Square J13-L13) to the south. It is possible that this feature partly defined an enclosure of some description with F1284 and the south-westernmost features of Enclosure 38; this interpretation is tentative however. It is equally possible that this ditch represented a crude continuation of the alignment marked to the north-east by Ditch F1858 (see above). The north-eastern terminus of this feature was recut by Gully F1421 (Grid Square L15-L16). Although the finds assemblage from F1374 (=1400) lacks closely datable pottery, this feature truncated Roman Sub-Phase 5 Ditch F1429 (=1814; Grid Square J16-N14 and N14-P15). Also, Gully F1421 yielded 12 sherds (273g) of mid/ late 3rd to 4th century pottery. Of the 26 sherds (379g) of Roman pottery yielded by F1374 (=1400), two are mid-2nd to 4th century in date. Other notable finds from this Ditch include 2224g of animal bone, comprising elements of cattle, horse, large terrestrial mammal and medium terrestrial mammal (Cussans 2012). This assemblage included evidence of canid gnawing and two cattle elements (a pubis (acetabulum) and ulna) exhibited pathological traits (*ibid.*).

Roman Sub-Phase 6 Gullies F1284 (Grid Square J13-L13) and F1361 (Grid Square K13) were located immediately south of Ditch F1374 (=1400; Grid Square J13-L16)

(Fig. 144). These parallel features were positioned c. 2.3m apart and possibly represented a short section of trackway, tentatively continued in the western quadrant by curvilinear Gully F2120 (Grid Square G14) and Ditch F2126 (Grid Square F13-G13) (see below). F1284 and F1361 were extremely similar in plan and contained comparable fills. Neither yielded pottery however and F1361 was devoid of finds. The phasing of these features is chiefly based on the stratigraphic relationships displayed by F1284.

In summary, Roman Sub-Phase 6 Enclosure System 1 was dominated by a very large rectilinear enclosure (Enclosure 35) traversing the northern, south-eastern and south-western quadrants. Internal divisions of space within this enclosure were largely unresolvable. The exception was Enclosure 35a, an open-sided area formed by Ditches F4962 (Grid Square T11-U11) and F5022 (Grid Square T10-T11), the alignments of which were reflected by linear features within previously excavated site MNL 608. A smaller, though broadly contemporary enclosure (Enclosure 36) was located immediately to the south-west but was greatly obscured. A possibly earlier arrangement of Roman Sub-Phase 6 ditches and gullies was present across much of the northern quadrant. These features were aligned slightly at odds to their southern counterparts but appeared to form at least one possible enclosure (Enclosure 38) to the south-west of substantial Ditch F1729 (=1760; Grid Square M18-R14). A possible west-north-west to east-south-east oriented trackway represented by Gullies F1284 (Grid Square J13-L13) and F1361 (Grid Square K13) may have been continued in the western quadrant (see below).

Roman Sub-Phase 6 ditches and gullies in the western quadrant

The Roman Sub-Phase 6 ditches and gullies in the western quadrant (Table 94; Fig. 143) displayed little coherency. Few of these features were intercutting and none yielded closely datable pottery. However, all displayed either spatial or stratigraphic relationships that allowed them to be tentatively phased. Only two of the features in this quadrant, Gullies F2120 (Grid Square G14) and F2126 (Grid Square G13-G14), displayed a possible relationship to Roman Sub-Phase 6 Enclosure System 1. A possible ring-ditch, represented by Gully F1236 (=2384; Grid Square F9-G10) in the western quadrant was thought structural and is discussed separately.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1095	Ditch	A4-B4	NW-SE	? x 0.96 x 0.27	Linear	Moderate	Flattish
1103	Ditch	C8-D8	NE-SW	7.97 x 0.96 x 0.22	Linear	U-shaped	Concave
1121	Gully	C8-D8	NE-SW	8.05 x 0.40 x 0.18	Linear	Moderate	Concave
1147	Ditch	D8-D9	NW-SE	9.33 x 1.00 x 0.84	Linear	V-shaped	Concave
1221	Gully	D10-E10	NW-SE	7.00 x 0.52 x 0.09	Linear	Gentle	Concave
1234	Ditch	E8	NNE-SSW	3.56 x 1.51 x 0.27	Linear	Moderate	Flat
2120	Gully	G14	Curvilinear	6.64 x 0.15 x 0.09	Curvilinear	U-shaped	Concave
2124	Gully	G13-G14	N-S	3.72 x 0.50 x 0.32	Linear	U-shaped	Concave
2126	Ditch	F13-G13	Curvilinear	7.64 x 0.30 x 0.42	Curvilinear	V-shaped	Concave
2131	Ditch	F14-G14	Curvilinear	3.71 x 0.19 x 0.03	Curvilinear	U-shaped	Concave
2201	Ditch	G11-G12	NNE-SSW	4.96 x 1.10 x 0.33	Linear	Gentle	Concave
2277	Ditch	E5-F6	NE-SW	5.41 x 1.52 x 0.72	Linear	Moderate	Concave
2282	Gully	E6-F5	WNW-ESE	1.61 x 0.50 x 0.31	Linear	Vertical	Flat
2300	Ditch	E5	WNW-ESE	0.98+ x 0.80 x 0.41	Linear	Steep	Concave
2306	Ditch	E5	E-W	0.98+ x 1.32 x 0.37	Linear	Moderate	Concave
2351	Gully	F8-G8	ENE-WSW	4.49 x 0.95 x 0.34	Linear	U-shaped	Concave
2353	Gully	F8	NNW-SSE	2.32 x 0.40 x 0.10	Linear	U-shaped	Flat

Table 94: Roman Sub-Phase 6 ditches and gullies in the western quadrant

Curvilinear Gullies F2120 (Grid Square G14) and F2126 (Grid Square G13-G14) were located in the northern corner of the western quadrant and displayed tentative alignments with Roman Sub-Phase 6 Gullies F1284 (Grid Square J13-L13) and F1361 (Grid Square K13) in the northern quadrant (Figs. 143-144). The latter pair represented a possible c. 2.3m wide trackway running east-south-east from the western baulk of the excavation (see above). F2120 and F2126 were similarly spaced apart but turned sharply away from one another towards the west-north-west. To the east, the parallel elements of these features were truncated by stratigraphically later Ditch F2124 (Grid Square G13-G14), while curvilinear Gully F2131 (Grid Square F14-G14) was located adjacent to the south-western edge of F2120. The nature of the relationship between F2120, F2126 and neighbouring features remains uncertain. Gully F2120 truncated securely dated Roman Sub-Phase 5 Ditch F2122 (Grid Square G14), while F2126 cut Roman Sub-Phase 5 Ditch F2151 (Grid Square F13-G13). None of the Roman Sub-Phase 6 gullies in this area yielded finds of note and all were phased based on their stratigraphic/ spatial relationships.

Other potentially related features in the western quadrant included intercutting Ditch F1103 and Gully F1121 (Grid Square C8-D8), and perpendicular Ditch F1147 (Grid Square D8-D9). The latter also appeared to mirror the alignment of Gully F1221 (Grid Square D10-E10), c. 13.5m to the north-east. Gully F1103 was the stratigraphically later of the intercutting pair and also partially cut Roman Sub-Phase 5 Ditch F1091 (Grid Square C7-C8). F1103 and F1121 yielded a total of three sherds (11g) of Roman pottery (not closely datable). Ditch F1147 yielded five sherds (30g) of Roman pottery and 215g of animal bone, while Gully F1221 contained just a single Roman sherd (4g). These features were assigned to phase based on their stratigraphic relationships. The modest faunal assemblage from F1147 comprises elements of cattle, horse, large terrestrial mammal, medium terrestrial mammal and bird, and includes evidence of canid gnawing and butchery (Cussans 2012). The single element of bird was noted for its small size (smaller than snipe (*Gallinago gallinago*)) (*ibid.*). Two horse elements from this feature display cut marks (Curl and Cussans this report – *The animal bone*).

Intercutting Gullies F2351 (Grid Square F8-G8) and F2353 (Grid Square F8) were located in the central eastern area of the western quadrant. These perpendicular features were heavily truncated by modern activity, but may (tentatively) have formed the southern corner of a rectilinear pen or small enclosure; no other features in the immediate vicinity were similarly aligned however. The stratigraphically earlier feature, Gully F2353, truncated Roman Sub-Phase 5 Ditch F2191 (Grid Square F8-G8); both F2351 and F2353 were phased based on this relationship. Neither yielded finds of any description.

An intercutting 'cluster' of three Ditches (F2277 (Grid Square E5-F6), F2300 and F2306 (Grid Square E5)) and one gully (F2282 (Grid Square E6-F5)) was present towards the south-east of the western quadrant. As a group, these features truncated securely dated Roman Sub-Phase 5 Ditch F2174 (Grid Square E6-G7) but did not yield closely datable finds. Three of these features yielded Roman pottery (not closely datable) totalling ten sherds (95g), and animal bone totalling 661g. The combined faunal assemblage comprises elements of cattle, horse, sheep/ goat and large terrestrial mammal, and includes evidence of canid gnawing (Cussans 2012).

The three remaining ditches located within the western quadrant (F1095, F1234, and F2201) were comparatively isolated. None of these ditches yielded pottery and only one contained finds of any kind. F1234 produced 279g of animal bone comprising elements of cattle, horse and large terrestrial mammal (Cussans 2012).

In summary, apart from Gully F2120 and Ditch F2126, none of the linear features in the western quadrant could be confidently associated with Roman Sub-Phase 6 Enclosure System 1. In fact, little evidence survived of their having ever constituted an organised system of features; no doubt as a result of considerable later truncation. No clear evidence was found to suggest that these features constituted recuts of forerunning Roman Sub-Phase 5 features.

The Roman Sub-Phase 6 Structures

Structure 7 (Table 95) comprised five postholes (F5145, F5147, F5157, F5164 and F5168) traversing Grid Squares V9-W9 and W10 to the south-east of Enclosure 35 (Fig. 161). The features forming Structure 7 were tentatively phased during post-excavation based on their position in respect to nearby Roman Sub-Phase 6 linear features. Pottery from these features comprises just two Roman sherds (24g; not closely datable) from Postholes F5164 (Grid Square W10) and F5168 (Grid Square W9). This structure was positioned directly to the north-east of Structure 5, respecting the alignment of possible Drip-Gully F5134, and may have represented a continuation of the 'storage' activity associated with the similar Roman Sub-Phase 5 structures (Structures 4-6) in this part of the site. The five postholes making up Structure 7 were comparable in plan to a middle/ late Iron Age to Romano-British five-post 'granary' structure excavated at Lower Cambourne, Cambridgeshire (Wright *et al.* 2009, 18).

Feature	Type	GS	Size (m)	Plan	Profile	Base
5145	Posthole/ Pit	V9	0.73 x 0.55 x 0.37	Oval	Steep	Concave
5147	Posthole/ Pit	V9	0.38 x 0.40 x 0.08	Sub-square	Moderate	Flattish
5157	Posthole	V9-W9	0.36 x 0.24 x 0.07	Irregular	Steep	Concave
5164	Posthole	W10	0.63 x 0.53 x 0.18	Sub-rectangular	Irregular	Concave
5168	Posthole	W9	0.28 x 0.44 x 0.17	Sub-rectangular	Vertical	Flattish

Table 95: Structure 7

Two possible 'D'-shaped structures (Structures 8 and 9; Tables 96 and 97; Fig. 161) were also recorded. The northernmost of these (Structure 9; Table 97) was defined by Gully F1408 (Grid Square K16-L16) and appeared to have been constructed 'against' curvilinear Ditch F1374 (=1400; Grid Square J13-L16). The south-eastern edge of F1408 truncated Roman Sub-Phase 6 Ditch F1404. The area enclosed by the F1408 measured c. 9.5m²; neither F1408 nor F1404 yielded finds. Structure 8, comprising Gully F4190 (=4982; Grid Square T7-T8) was present in the south-eastern quadrant, adjacent to the boundary of the tree preservation area. This structure may have related to Sub-Phase 6 Ditch F4359 (Grid Square S7-T8), although much of their relationship was obscured. Neither feature yielded finds of note. The south-eastern edge of Structure 8 was truncated by Pit F4324 (Grid Square T7) which yielded four sherds (26g) of Roman pottery (not closely datable) and 131g of animal bone. The area enclosed by Structure 8 measured at least 24m². The curvilinear gullies forming Structures 8 and 9 were similarly oriented and may have represented footings for wattle fencing or similar. Evidence for structural

postholes was lacking in both cases and it is unlikely that these 'structures' were roofed.

Feature	Type	GS	Size (m)	Plan	Profile	Base
4190=4982	Gully	T7-T8	13.25+ x 0.38 x 0.27	Curvilinear	Steep	Flat

Table 96: Structure 8

Feature	Type	GS	Size (m)	Plan	Profile	Base
1408	Gully	K15-L15	7.50 x 0.33 x 0.23	Curvilinear	Vertical	Concave

Table 97: Structure 9

Structure 10 (Table 98) in the western quadrant was reminiscent in form and size of Structure 1 (Period I; see above) (Fig. 162). Although the ring-ditch forming this possible roundhouse (F1236=2384) was incomplete, its internal diameter measured c. 6.5m, similar to Structure 1 and Iron Age examples at the neighbouring Maltings (MNL 502; Bales 2004, 7-8, fig. 4). A similar Romano-British (2nd to 3rd century) example was found at the Cambridgeshire site of Ash Plantation (Abrams and Ingham 2008, 48-9, fig. 3.10). Structure 10 displayed associations to a nearby cluster of 14 pits/ postholes (see below) some of which may have represented contemporary structural elements (Fig. 162). Ring-Ditch F1236 (=2384) was devoid of finds and was tentatively phased based on its stratigraphic relationships and location in respect to nearby Roman Sub-Phase 6 features.

Feature	Type	GS	Size (m)	Plan	Profile	Base
1236=2384	Ditch	F9-G10	5.00+ x 0.76 x 0.30	Curvilinear	Moderate	Flattish

Table 98: Structure 10

The Roman Sub-Phase 6 pits and postholes/ stakeholes

The 113 pits and postholes/ stakeholes assigned to this sub-phase will be collectively summarised owing to the fact that five feature clusters were identified that contained both feature types. Ten clusters were identified in total (Tables 99-108) and occurred in all quadrants of the site. Four feature pairs were also encountered (Tables 109-112), in addition to numerous isolated/ dispersed features (Tables 113 and 114).

Pit/ posthole clusters

The largest pit/ posthole cluster assigned to Roman Sub-Phase 6 (Table 99) was found in the western quadrant of the site. This cluster comprised 14 individual features loosely grouped around the easternmost terminus of curvilinear Ditch F1236 (=2384; Grid Square F9-G10; Structure 10) (Fig. 162). Cattle Burial F2399 (Grid Square G9) also appeared to form part of this cluster and two unnumbered pig skeletons were yielded by F2407 and F2452 (see below). Eight of these features were devoid of finds and none yielded closely datable pottery; bar the animal remains, no finds of any particular note were recovered. However, Postholes F2454 (Grid Square G10) and F2456 (Grid Square G9) were cut through the fill of Roman Sub-Phase 5 Gully F2380 (Grid Square G9-G10). The cluster was tentatively phased as a whole based on this relationship. The distribution of these features was informal and their function(s), bar F2399, F2407 and F2452, remains uncertain. It is possible that those close to the easternmost terminus of F1236, e.g. Postholes

F2430 and F2432 constituted surviving elements of a roundhouse (Structure 10) represented by the former.

Feature	Type	GS	Size (m)	Plan	Profile	Base
2407	Pit	G9	0.67 x 0.51 x 0.47	Oval	Steep	Concave
2409	Posthole	G9	0.32 x 0.26 x 0.14	Oval	Moderate	Concave
2411	Posthole	G9-G10	0.60+ x 0.48 x 0.26	Oval	Gentle	Concave
2413	Pit	G10	0.70 x 0.46 x 0.80+	Oval	Gentle	Concave
2415	Posthole	G10	0.30 x 0.20 x 0.22	Oval	Steep	Concave
2421	Posthole	G9	0.32 x 0.30 x 0.14	Oval	Moderate	Concave
2430	Posthole	G10	0.28 x 0.26 x 0.13	Oval	Moderate	Concave
2432	Posthole	G9	0.26 x 0.24 x 0.07	Oval	Gentle	Concave
2434	Pit	G9	0.24+ x 0.32+ x 0.16	Oval	Moderate	Concave
2436	Pit	G9	0.10 x 0.10+ x 0.16	Oval	Gentle	Flat
2438	Pit	G9	0.36+ x 0.56 x 0.40	Oval	Very steep	Concave
2452	Pit	G9	1.10 x 0.60 x ?	Irregular	Unknown	Concave
2454	Posthole	G10	0.24 x 0.24 x 0.12	Circular	U-shaped	Moderate
2456	Posthole	G9	0.40 x 0.22 x 0.15	Oval	U-shaped	Concave

Table 99: Roman Sub-Phase 6 pit/ posthole cluster (1 of 10)

A second pit/ posthole cluster was identified c. 29m to the west-south-west. Two of the four features forming this cluster (Table 100; Fig. 163) were devoid of finds, while the remaining pair yielded no datable pottery. The combined finds assemblage from Posthole F1101 and Pit F1167 (Grid Square D8) comprises 28g of Fe and 342g of animal bone, including the remains of at least six domestic fowl (Curl and Cussans this report – *The animal bone*). Mortar was present in the fills of F1099 and F1101 (Fig. 163), although no sample of this material was retained. These features were equidistant between intercutting Ditch F1103 and Gully F1121 (Grid Square C8-D8) and Ditch F1147 (Grid Square D8-D9) and were principally assigned to this sub-phase based on this spatial relationship. This cluster did not appear to conform to any structural layout.

Feature	Type	GS	Size (m)	Plan	Profile	Base
1099	Posthole	D8	0.35 x 0.31 x 0.19	Irregular	U-shaped	Concave
1101	Posthole	D8	0.50 x 0.40 x 0.21	Sub-square	U-shaped	Flattish
1167	Pit	D8	0.45 x 0.40 x 0.09	Sub-circular	Gentle	Flat
1183	Pit	D8	0.78 x 0.50 x 0.31	Oval	V-shaped	Pointed

Table 100: Roman Sub-Phase 6 pit/ posthole cluster (2 of 10)

Three Roman Sub-Phase 6 pit/ posthole clusters were identified in the northern site quadrant. The westernmost of these (Table 101) comprised six features (including two likely outliers (F1413 and F1444) and Infant Burial F1600 (separately illustrated), loosely grouped around the south-western terminus of Gully F1511 (Grid Square K15-L15) (Fig. 164). Posthole F1598 (Grid Square K15) was partially truncated by the latter. Although predominantly devoid of finds, Pit F1413 (Grid Square K15) of this cluster yielded eight sherds (116g) of 1st to 4th century pottery, 93g of animal bone and 21241g of CBM. The latter was recorded in section (Fig. 164) and appears to have formed a central column through the feature, perhaps indicating the secondary use of CBM as packing material (Peachey this report – *The ceramic building materials*). It did not appear to comprise a 'demolition dump' (*ibid.*). Overall this feature cluster appeared informally distributed and was chiefly dated based on the relationship of Posthole F1598 with Roman Sub-Phase 6 Gully F1511.

Feature	Type	GS	Size (m)	Plan	Profile	Base
1413	Pit	K15	0.65 x 0.62 x 0.90	Sub-rectangular	Steep	Concave
1444	Posthole	K15	0.34 x 0.32 x 0.22	Sub-rectangular	Vertical	Flat
1592	Pit	K15	1.60 x 0.88 x 0.20	Sub-rectangular	Moderate	Concave
1596	Posthole	K15	0.17 x 0.17 x 0.04	Circular	Gentle	Flat
1598	Posthole	K15	0.17 x 0.11 x 0.07	Circular	Moderate	Concave

Table 101: Roman Sub-Phase 6 pit/ posthole cluster (3 of 10)

The northernmost pit/ posthole cluster comprised five features in Grid Squares K17 and L17 (Table 102), to the north-west of Enclosure 38 (Fig. 165). Four of these features, F1653, F1655, F1661 and F1663 appeared to form a loose north-west to south-east alignment; F1767 was a possible outlier. This alignment of features may have been structural, representing a short section of fenceline or similar perpendicular to Roman Sub-Phase 6 Gully F1511. The only find from this cluster is a single sherd of Roman pottery from Posthole F1655. The phasing of this cluster was tentatively based on its alignment in respect to F1511.

Feature	Type	GS	Size (m)	Plan	Profile	Base
1653	Posthole	K17	0.98+ x 0.09 x 0.21	Circular	Steep	Concave
1655	Posthole	K17	0.98+ x 0.42 x 0.12	Circular	Steep	Concave
1661	Posthole	K17	0.98+ x 0.10 x 0.06	Sub-circular	Gentle	Concave
1663	Posthole	K17	0.98+ x 0.27 x 0.12	Sub-circular	Gentle	Concave
1767	Posthole	L17	0.31 x 0.20 x 0.40	Sub-circular	Steep	Concave

Table 102: Roman Sub-Phase 6 pit/ posthole cluster (4 of 10)

A loose alignment of postholes was present within Grid Square Q16. Postholes F3221, F3312 and F3330 were aligned north-east to south-west, parallel to nearby Roman Sub-Phase 6 Ditch F1919 (Grid Square P16-Q17) and Gully 3279 (Grid Square Q15-R17); this alignment was also adjacent and broadly perpendicular to contemporary Ditch F1729 (=1760; Grid Square M18-R14). These postholes formed part of a larger cluster of six similar features (Table 103; Fig. 166), 'enclosed' by the above ditches and gully. It is possible that some of these features represented a fenceline or similar. Five Roman pot sherds were recovered from this cluster, though none is closely datable and the postholes were tentatively phased based on their location and alignment in respect to other Roman Sub-Phase 6 features.

Feature	Type	GS	Size (m)	Plan	Profile	Base
3191	Posthole	Q16-R16	0.30 x 0.25 x 0.34	Oval	Very steep	Flattish
3217	Posthole	Q16	0.38+ x 0.14+ x 0.20	Sub-oval	Moderate	Concave
3219	Posthole	Q16	0.38 x 0.38 x 0.24	Sub-circular	Moderate	Flattish
3221	Posthole	Q16	0.24 x 0.26 x 0.22	Sub-circular	Very steep	Concave
3312	Posthole	Q16	0.22 x 0.22 x 0.16	Sub-circular	Very steep	Concave
3330	Posthole	Q16	0.28 x 0.28 x 0.15	Sub-circular	Moderate	Concave

Table 103: Roman Sub-Phase 6 pit/ posthole cluster (5 of 10)

The south-western site quadrant encompassed three separate clusters of pits and postholes. The westernmost of these (Table 104) comprised three substantial, intercutting pits within the confines of Enclosure 36 (Fig. 167). The stratigraphically earliest of these (F4481) was cut by Roman Sub-Phase 6 Gully F4345 and in turn cut the south-eastern edge of broadly contemporary Gully F4079. Two of these pits yielded residual pottery, comprising two sherds (108g) of mid-1st to 3rd century pottery from F4483 and 20 sherds (290g) of mid-2nd to 3rd century material from F4485. Pit F4481 yielded two sherds (16g) of Roman pottery (not closely datable). Other finds from this cluster include modest quantities of animal bone, shell and burnt flint. Of particular note is an iron double spiked loop from Fill L4484 of Pit F4483 (Seg.B), possibly used as a carpentry attachment (Cooper this report – *The*

small finds). Despite the early pottery, apparently derived from underlying Roman features, the phasing of this pit cluster was stratigraphically secure.

Feature	Type	GS	Size (m)	Plan	Profile	Base
4481	Pit	K9	1.25 x 0.78 x 0.51	Sub-circular	Moderate	Concave
4483	Pit	K9	1.86 x 1.25 x 0.35	Sub-oval	Moderate	Concave
4485	Pit	K9	1.80 x 1.20 x 0.47	Oval	Moderate	Flattish

Table 104: Roman Sub-Phase 6 pit/ posthole cluster (6 of 10)

A cluster of loosely aligned and partially intercutting pits (Table 105) was identified c. 5m to the south-east of parallel Ditch F4106 (=4250; Grid Square S8-M10) (Fig. 168). The phasing of these features was primarily based on their alignment and location in respect to nearby Roman Sub-Phase 6 ditches and gullies. This cluster also truncated earlier Roman features. The function(s) of these pits remains uncertain, although they may have represented structural remnants associated with nearby linear features (see above) and a neighbouring feature cluster (9 of 10; see below). No closely datable material was recovered and only three of these pits yielded finds of any sort. The only notable find was the partial remains of a neonate calf (unnumbered) from the fill of F4212 (see below).

Feature	Type	GS	Size (m)	Plan	Profile	Base
4048	Pit	L9	0.64 x 0.63 x 0.22	Circular	U-shaped	Flattish
4050	Pit	L9	1.28 x 1.08 x 0.20	Oval	U-shaped	Concave
4212	Pit	L9	1.10 x 0.65 x 0.27	Sub-rectangular	Vertical	Flat
4216	Pit	L9	1.10 x 0.65 x 0.27	Oval	Gentle	Flat
4218	Pit	L9	1.70 x 1.05 x 0.20	Sub-rectangular	Steep	Flat
4295	Pit	L9	0.70 x 0.50 x 0.17	Oval	Moderate	Flat
4297	Pit	L9	0.35 x 0.21 x 0.11	Oval	Moderate	Concave
4369	Pit	L9	0.80 x 0.75 x 0.15	Circular	Moderate	Concave

Table 105: Roman Sub-Phase 6 pit/ posthole cluster (7 of 10)

A small cluster of two pits and a posthole (Table 106) was found towards the eastern corner of Enclosure 36 (Fig. 169). Animal burial F4546 was present c. 3m to the east. The sole find of note from this cluster is a complete copper alloy spoon probe (cyathiscomeles; SF135) from Fill L4551 of Pit F4550 (see Cooper this report – *The small finds*). This personal item has surgical or toiletry affiliations and has a number of regional parallels (*ibid.*). The features forming this cluster were phased based on their apparent location within Enclosure 36.

Feature	Type	GS	Size (m)	Plan	Profile	Base
4538	Posthole	L10	0.28 x 0.20 x 0.98+	circular	Vertical	Flat
4550	Pit	L10	1.50 x 0.46 x 1.34	Oval	Very steep	Flat
4554	Pit	L10	2.26 x 0.82 x 1.44	Oval	Steep	Flat

Table 106: Roman Sub-Phase 6 pit/ posthole cluster (8 of 10)

A more dispersed cluster of pits and postholes was present in the south of the south-western quadrant (Table 107; Fig. 170). These features varied greatly in form but contained comparable fills; several were also intercutting. Collectively, these pits and postholes were phased based on a late 3rd to 4th century spot date from Pit F3996 (Grid Square M8) and the stratigraphic relationships of Pit F3922 (Grid Square M8). The former yielded 15 sherds (211g) of tightly dated pottery, while the latter truncated Roman Sub-Phase 5 Ditch F3924 (Grid Square L7-M8). The only other find from this cluster comprises a single Bronze Age sherd from Pit F3922. The source of this residual material may have been adjacent Period I Gully F3891 (Grid Square L7-M8). It is possible that this cluster, with contemporary feature

cluster 7 of 10 (see above) and nearby linear features, represented confused structural remnants.

Feature	Type	GS	Size (m)	Plan	Profile	Base
3893	Posthole	M8 - N8	0.35 x 0.27 x 0.07	Oval	Irregular	Irregular
3895	Posthole	M8	0.37 x 0.36 x 0.20	Circular	Moderate	Concave
3897	Posthole	M8	0.62 x 0.35 x 0.13	Oval	Moderate	Irregular
3918	Posthole	M8	0.34+ x 0.33 x 0.40	Circular	Steep	Concave
3920	Posthole	M8	0.34 x 0.31 x 0.40	Circular	Steep	Concave
3922	Pit	M8	2.58 x 1.58 x 0.33	Oval	Irregular	Gentle
3992	Posthole	M8	0.90 x 0.68 x 0.14	Oval	U-shaped	Flattish
3994	Pit	M8	0.14 x 0.14 x 0.10	Circular	U-shaped	Concave
3996	Pit	M8	2.84 x 1.15 x 0.36	Oval	U-shaped	Flattish

Table 107: Roman Sub-Phase 6 pit/ posthole cluster (9 of 10)

A cluster of four features (Table 108), including Horse Burial F5045 (see *Roman Sub-Phase 6 animal burials*, below), was found equidistant between Structures 7 and 8 within Enclosure 37 (Fig. 171). Disregarding the burial (reviewed separately) the pits forming this loose cluster yielded just two sherds (14g) of Roman pottery (not closely datable) and 199g of animal bone, all from Pit F5088 (Grid Square V8-V9). Pit F5035 truncated earlier Roman Sub-Phase 5 Pits F5031 and F5036 (Grid Square U8), and the cluster as a whole was tentatively phased based on this relationship.

Feature	Type	GS	Size (m)	Plan	Profile	Base
5034	Pit	U8	0.90 x 0.82 x 0.16	Oval	Gentle	Concave
5043	Pit	U8-U9	0.55 x 0.43 x 0.12	Circular	Gentle	Concave
5088	Pit	V8-V9	1.90 x 1.25 x 0.34	Oval	Steep	Flat

Table 108: Roman Sub-Phase 6 pit/ posthole cluster (10 of 10)

Roman Sub-Phase 6 pit/ posthole pairs

Four pairs of Roman Sub-Phase 6 pits/ postholes were present within the northern quadrant of the site. The northernmost of these comprised Pits F1703 and F1704 (Grid Square L17; Table 109), within the confines of Enclosure 38 (Fig. 172). The former was devoid of finds, while that latter yielded 26 sherds (307g) of Roman pottery (not closely datable), CBM (24g), residual struck flint (210g) and 2744g of animal bone. This sizable faunal assemblage comprises elements of cattle, horse, sheep/ goat, dog, large terrestrial mammal and medium terrestrial mammal, and includes evidence of canid gnawing (Cussans 2012). The remains of at least three dogs were recovered from this feature and include one possible Italian Greyhound (Curl and Cussans this report – *The animal bone*). The fills of both pits were sealed by Roman Sub-Phase 6 Layer L1742 (see below), a context that also sealed the north-eastern terminus of Gully F1511 (Grid Square K15-L17).

Feature	Type	GS	Size (m)	Plan	Profile	Base
1703	Pit	L17	2.40 x 2.34 x 0.47	Sub-circular	Steep	Flat
1704	Pit	L17	2.38 x 2.38 x 1.28	Sub-circular	Steep	Concave

Table 109: Roman Sub-Phase 6 pit/ posthole pair (1 of 4)

A second pair of intercutting pits (F2005 and F2018; Grid Square M16; Table 110) was found c. 8m to the south-east, also within Enclosure 38 (Fig. 172). Only one of these pits (F2018) yielded finds (of no particular note). F2005 truncated securely dated Roman Sub-Phase 6 Gully F2007 (Grid Square L17-M16) and both pits were phased accordingly.

Feature	Type	GS	Size (m)	Plan	Profile	Base
2005	Pit	M16	1.80 x 1.50 x 0.37	Irregular	U-shaped	Concave
2018	Pit	M16	0.50 x 0.40 x 0.37	Irregular	U-shaped	Unknown

Table 110: Roman Sub-Phase 6 pit/ posthole pair (2 of 4)

Pit F2324 and Posthole F2391 (Grid Square P14; Table 111) were found close to the south-eastern terminus of Roman Sub-Phase 6 Gully F1821 (Grid Square P14-P15), between Enclosures 35 and 38 (Fig. 172). The only finds from this pair are three sherds (97g) of Roman pottery (not closely datable) and their function remains uncertain. Both features were tentatively assigned to this sub-phase based on their location in respect to F1821; both also cut earlier Roman features.

Feature	Type	GS	Size (m)	Plan	Profile	Base
2324	Pit	P14	1.48 x 1.16 x 0.45	Sub-circular	U-shaped	Concave
2391	Posthole	P14	0.50+ x 0.47 x 0.39	Sub-circular	Steep	Concave

Table 111: Roman Sub-Phase 6 pit/ posthole pair (3 of 4)

The final pair of Roman Sub-Phase 6 pits (F3297 and F3299; Table 112; Fig. 172), lay close to the north-eastern edge of Gully F3279 (Grid Square Q15-R17). Both pits yielded tightly dated Roman pottery; F3297 contained five 4th century sherds (175g), while F3299 contained three 3rd to 4th century sherds (27g). Other finds from these features comprise modest quantities of animal bone and Fe from F3297.

Feature	Type	GS	Size (m)	Plan	Profile	Base
3297	Pit	R17	0.63 x 0.46 x 0.28	Oval	U-shaped	Flat
3299	Pit	R17	1.40 x 1.40 x 0.55	Linear	U-shaped	Concave

Table 112: Roman Sub-Phase 6 pit/ posthole pair (4 of 4)

Isolated/ dispersed Roman Sub-Phase 6 pits/ postholes

The four remaining postholes (Table 113) and 33 pits (Table 114) were assigned to this sub-phase chiefly on stratigraphic grounds or based on their locations in respect to dated features. Only two of the isolated/ dispersed pits contained tightly datable pottery that agreed with the proscribed date range for Roman Sub-Phase 6; F1219 (Grid Square E8) yielded two 3rd to 4th century sherds (21g), while F3448 (Grid Square P8-P9) contained one late 3rd to 4th century sherd (13g). None of the isolated/ dispersed postholes produced closely datable pottery. Two particular finds of note are a short, broken length of whetstone from Fill L1847 of Pit F1846 (Seg.A; Grid Square Q17-Q17) and two pieces of a Manning Type 13 iron knife (SF8) from Fill L1301 of Pit F1299 (Grid Square L13) (Cooper this report – *The small finds*). F1219 contained the partial remains (unnumbered) of a foetal lamb (see below). These pits and postholes were mostly separate from other, similar Roman Sub-Phase 6 features and no structural configurations were obvious. However, many were interspersed or intercut with Roman Sub-Phase 6 ditches and gullies and were very likely related to these features, e.g. Pit F5100 (Grid Square V11) represented a possible gatepost setting within the southern area of Enclosure 35, possibly associated with a livestock pen/ 'race' or similar (delineated by Ditch F4885; Grid Square V11-W11; Fig. 144).

Feature	Type	GS	Size (m)	Plan	Profile	Base
1542	Posthole	L18-M18	0.15 x 0.23 x 0.17	Circular	U-shaped	Concave
1823	Posthole	N15	0.26 x 0.19 x 0.23	Oval	Steep	Concave
2473	Posthole	P14	0.44 x 0.27 x 0.14	Square	Moderate	Flat
3203	Posthole	R15	0.28 x 0.25 x 0.36	Oval	Very steep	Moderate

Table 113: Isolated/ dispersed Roman Sub-Phase 6 postholes

Feature	Type	GS	Size (m)	Plan	Profile	Base
1021	Pit	C4	0.74 x 0.65 x 0.52	Circular	U-shaped	Flat
1093	Pit	B4	0.60 x 0.42 x 0.18	Circular	Moderate	Concave
1181	Pit	F9-F10	2.84 x 1.16 x 0.23	Irregular	Moderate	Flattish
1219	Pit	E8	0.68 x 0.50 x 0.12	Oval	U-shaped	Flat
1299	Pit	L13	1.60 x 0.99 x 0.80	Sub-circular	Gentle	Concave
1560	Pit	K16	0.70 x 0.46 x 0.16	Oval	Moderate	Flat
1581	Pit	L17	0.28 x 0.30 x 0.25	Curvilinear	Steep	Flat
1846	Pit	Q16-Q17	2.82 x 3.80 x 0.53	Sub-circular	U-shaped	Concave
1894	Pit	N15	1.11 x 0.92 x 0.38	Sub-square	Vertical	Flat
2030	Pit	N15	0.44 x 0.42 x 0.32	Rectangular	U-shaped	Flat
2158	Pit	G13-G14	1.20 x 1.00 x 0.40	Oval	Very steep	Flat
2177	Pit	G6-G7	0.75 x 0.51 x 0.29	Oval	Steep	Flat
2194	Pit	G12	1.20 x 1.15 x 0.90	Sub-circular	Steep	Concave
2241	Pit	F6	0.68 x 0.55 x 0.36	Sub-square	Vertical	Flat
2249	Pit	F6-G6	1.20 x 1.56 x 0.99	Oval	Steep	Concave
2524	Pit	Q13	0.45 x 0.22 x 0.09	Circular	U-shaped	Concave
2528	Pit	P13	1.07 x 0.65 x 0.26	Sub-circular	Steep	Flat
2666	Pit	P19-P20	0.72 x 0.87 x 0.30	Sub-circular	Gentle	Concave
3361	Pit	N9	0.38+ x 0.89 x 0.35	Sub-oval	Very steep	Flattish
3448	Pit	P8-P9	2.09 x 1.20 x 0.45	Sub-circular	Gentle	Concave
3459	Pit	P9-Q9	2.15 x 1.20 x 0.52	Oval	Steep	Rounded
3914	Pit	L8	1.65 x 0.66 x 0.38	Sub-circular	Moderate	Concave
3962	Pit	L7-L8	1.20 x 1.06 x 0.16	Sub-circular	Gentle	Flattish
3975	Pit	Q6-R6	2.12+ x 1.38 x 0.54	Sub-rectangular	Moderate	Concave
4002	Pit	L9	0.36 x 0.43+ x 0.41	Circular	Steep	Concave
4008	Pit	L9-M9	0.52 x 0.49 x 0.20	Sub-circular	Steep	Flat
4040	Pit	M9	1.08 x 0.64 x 0.11	Sub-circular	Gentle	Flattish
4075	Pit	J9	1.51 x 1.20 x 0.80	Sub-oval	Moderate	Concave
4324	Pit	T7	1.56 x 0.73 x 0.45	Sub-oval	Steep	Flat
4353	Pit	T6-T7	1.60 x 0.65 x 0.20	Sub-rectangular	Gentle	Concave
4361	Pit	T7	1.10 x 0.75 x 0.13	Sub-oval	Moderate	Flat
4420	Pit	L9	1.57 x 1.57 x 0.97	Sub-oval	Moderate	Flattish
5100	Pit	V11	1.00 x 0.42 x 0.33	Rectangular	Gentle	Concave

Table 114: Isolated/ dispersed Roman Sub-Phase 6 pits

Roman Sub-Phase 6 funerary evidence

One cremation pit (F1068; Grid Square B4) and a single grave cut (F1600; Grid Square K15) were tentatively assigned to this sub-phase (based chiefly on their locations in respect to other Roman Sub-Phase features). Cremation Pit F1068 yielded a single Wattisfield reduced wear shouldered jar containing cremated human remains (Cremation 1; Plate 4) within a matrix of friable, dark-grey to black ashy sand. This cremation comprises 427 pieces (399g) of burnt and unburnt bone including fragments of skull, limb bones (upper and lower), scapular and the pelvic girdle, but few articular fragments (Curl this report – *The human remains*). The weight of bone recovered is less than would normally be expected for an urned cremation and perhaps represents an incomplete individual or an ineffectual cremation process (*ibid.*). The individual is an adult of indeterminable age and sex (*ibid.*). Pit F1068 had been backfilled with L1071, a dark grey/ black ashy sand containing 37g of animal bone. The faunal assemblage comprises a single element of cattle, three large terrestrial mammal fragments and a single bird bone (possibly domestic fowl; Cussans *pers. comm.*), all of which (bar the bird bone) showed evidence of burning (*ibid.*). It is possible that this deposit represented intentionally redeposited pyre debris; the appearance of L1071 and presence of burnt animal bone – perhaps the remains of ‘pyre goods’ – agree with the accepted definition of such material (McKinley 2013, 150-1). Charcoal from this feature, representing pyre fuel, suggests the deliberate selection of wood of the Maloideae subfamily, perhaps alluding to some ‘special’ significance attached to the cremation ritual (Summers this report – *The carbonised plant macrofossils and charcoal*). The deposition of pyre

debris within or above graves has been suggested as forming part of the mortuary rite, perhaps representing some form of 'seal' (Davies with Mates 2005, 12). Pit F1068 was located close to Roman Sub-Phase 6 Pit F1093 and Ditch F1095 and was cut by Period III features.

Cut F1600 (Grid Square K15) contained the fragmented and truncated remains of a single human neonate (SK1; Fig. 173; Plate 5). The skeleton, comprising 115 pieces (Curl this report – *The human remains*), was lying in a flexed position, oriented east (head) to west with the head facing north. Both arms appeared flexed across the chest and both legs were truncated. The size of the remains, comprising elements of skull, vertebrae, clavicle, scapulae, ribs and long bones, suggest a full-term neonate; possibly a still-birth or child that died as a result of birthing trauma (*ibid.*). Whatever the cause of death, it is assumed that the mother survived otherwise they might have been interred together (*ibid.*). Fill L1601 yielded no finds and an environmental sample of this context yielded nothing of note. Nonetheless, the cut appeared overly large for purpose and may have originally contained organic 'bedding' material such as fleece (*ibid.*). However, the unceremonious 'disposal' of Romano-British infants into rubbish pits or other 'non-funerary' features has been recorded elsewhere (see Philpott 1991, 232). Grave F1600 comprised part of a small cluster of Roman Sub-Phase 6 features with Pit F1592 and Postholes F1596 and F1598 (Fig. 164). These were grouped around the south-western terminus of contemporary Gully F1511 (Grid Square K15-L17; Enclosure 38).

Roman Sub-Phase 6 animal burials (Associated Bone Groups (ABGs))

Fourteen associated bone groups (ABGs) were dated to Roman Sub-Phase 6 (Curl and Cussans this report – *The animal bone*). Two of these, F2344 (SK3; Plate 6) and F2399 (SK2), were positioned c. 13m apart within the western quadrant. Both F2344 and F2399 contained largely complete, articulated cattle skeletons. The horncores of both beasts had been removed prior to deposition and SK2 (possibly a bull calf) displays chop marks to the frontal bone of the skull (Curl and Cussans this report – *The animal bone*). The absence of foot bones from SK2 is suggestive of skinning (*ibid.*). Lesions were also noted on the metapodials of SK3, suggestive of a traction animal (*ibid.*).

The incomplete remains of a neonate calf were recovered from the fill of Pit F4212 – part of a more extensive feature cluster (7 of 10; see above). The head and feet of this animal were missing and may have been removed as part of the skinning process (*ibid.*). A largely complete (unnumbered) cattle skeleton was present in Pit F4546 (Grid Square L10) (*ibid.*). This feature was located in the south-eastern corner of Enclosure 36. The skeleton includes numerous unfused epiphyses, indicating a young individual, and displays evidence of skinning (*ibid.*). The calcanei of a second animal were also recorded (*ibid.*). Fragments of sheep/ goat and dog bones were also recovered from F4546 (Cussans 2012).

Pit F1175 (Grid Square F9-F10) was located c. 10m west-north-west of F2399. This feature contained the largely complete (unnumbered) skeleton of a juvenile pig (*ibid.*) (Plate 7). All of the elements are unfused and display no signs of butchery or pathology (*ibid.*). Another fairly complete and articulated (unnumbered) pig skeleton was found in Pit F4540 (Grid Square K11). This juvenile individual included a large

number of unfused epiphyses and displayed some pathological traits; observed lipping on the vertebrae may be the result of trauma (*ibid.*). No butchery evidence was present (*ibid.*). Two further (unnumbered) pig skeletons were found in Pits F2407 and F2452 (Grid Square G9), which again formed elements of a larger pit/posthole cluster (1 of 10; see above). Both animals are juvenile and that from F2407 displays evidence of skinning (*ibid.*).

The fairly complete, articulated skeleton (SK15) of a small adult horse (measuring c. 12.5-13 hands high) was found in the south-eastern quadrant (Curl and Cussans this report – *The animal bone*). The feature containing these remains (F5045; Grid Square U8) was cut by broadly contemporary Pit F5043 and formed a loose east-north-east to west-south-west alignment of Roman Sub-Phase 6 features with Pits F5034 (Grid Square U8) and F5088 (Grid Square V8-V9); F5034 also truncated Roman Sub-Phase 5 Pits F5031 and F5036. SK15 displayed no evidence of skinning or butchery (*ibid.*). The orientation of the skeleton (south to north) and seemingly careful arrangement of the legs might indicate a sacrificial animal (*ibid.*).

The incomplete remains of a neonate lamb (Plate 8) were present in the fill of Pit F1219 (L1220) in Grid Square (*ibid.*). This most likely represents a natural death.

The Roman Sub-Phase 6 ABGs include the partial or mixed remains of at least 11 dogs (Curl and Cussans this report – *The animal bone*): three from Pit F1704 (Grid Square L17); two from Ditch F1729 (=1760) (Grid Square M18-R14); and six from Layer L3947 (c. Grid Square M10-M11). These comprise animals of varying size/breed, including wolfhound-sized animals and small 'lapdogs' (*ibid.*). Those from Layer L3947 appeared to comprise part of a middle-type material including the remains of pigs, equids and birds (including a whimbrel (outlined above)). The occurrence of multiple dogs from a single deposit might suggest increased mortality due to activity such as dog fighting (*ibid.*). A large assemblage of fighting dogs was reported from the Roman site of St Mary's Hospital, Colchester (after Curl and Cussans this report – *The animal bone*).

The final ABGs assigned to this sub-phase comprised the remains of at least six domestic fowl from Pit F1167 (Grid Square D8) (Curl and Cussans this report – *The animal bone*). These appeared to be large, despite an apparent dearth of male elements, and may have indicated the requirement in the later Romano-British period for improved stock (*ibid.*). limited evidence of trauma and infection was also noted within this group (*ibid.*).

Possible Kiln F3605

F3605 was located to the south-east of Enclosure 38 in Grid Square P15, between Roman Sub-Phase 6 Pit F3599 (<1m to the east) and Gully F1821 (c. 2.8m to the north-west); this feature truncated Roman Sub-Phase 5 Ditch F1733 (Grid Square P14-P15) (Fig. 174). The primary clay fill of this feature (L3807) was interpreted as a kiln lining, although displayed no discolouration associated with high temperature exposure. Discolouration of the underlying natural substrate was, however, noted towards the 'flue' end of this feature. The subsequent fills of F3605 comprised a series of six dark-grey to black silty sand layers, five of which (L3606, L3741, L3751, L3754 and L3755) yielded notable environmental remains. Bar L3755, all of these

fills contained charcoal; fragments >2mm in size were abundant in the samples from L3606 and L3751, as were smaller fragments. Charcoal <2mm was common from Fills L3741 and L3754; oak was the dominant species (Summers this report – *The carbonised plant macrofossils and charcoal*). All five contexts also contained heather charcoal which may represent kindling or fuel used to produce high temperatures quickly (*ibid.*). Cereal grains were dominant across all five samples, accounting for 68% of identified taxa, and arable weeds were also common; the assemblage appeared to indicate the advanced stages of crop processing (*ibid.*).

Finds from F3605 comprise 18 pot sherds (369g), including 2nd to 4th century material, and 280g of animal bone. Pottery from nearby Roman Sub-Phase 6 Pit F3599 (Grid Square P15-Q15) includes 28 sherds (629g) of late 3rd to 4th century material; the single fill of this pit (L3600) was practically identical to the fills of F3605 and it is highly likely that these features were functionally related. L3600 also yielded a fragment of quernstone in Mayen lava (SF130), with an extrapolated diameter of 400mm, similar to an example from contemporary Ditch F2255 (=3612; Cooper this report – *The small finds*), and a fragment of coarse sandstone with a possible 'grinding' surface (*ibid.*).

The Roman Sub-Phase 6 layers/ spreads/ subsoils

Five layers, spreads or subsoils were assigned to this sub-phase. The largest of these, Layer L3947 (c. Grid Square M10-M11) was located in the south-western quadrant. This layer sat within a natural depression and stratigraphically sealed linear features associated with Enclosure 36. The eastern part of L3947 was truncated by modern activity (running through Grid Squares M13 to N7), while its western extremity had been lost to Period III Wall Cut F4234 (Grid Square K9-M10 and L11-M10). The surviving extent of this Layer (some 30m²; not planned) was excavated in 1m² test pits. Finds reflect the broad date range of features encountered in this part of the site.

Of the 184 sherds (3548g) of pottery recovered from L3947, just 24 sherds (260g) are 3rd to 4th century in date, and six sherds (351g) are 3rd century in date. The remainder of the assemblage comprises residual and intrusive material, including five 2nd century sherds (66g) and 19 1st to 2nd century sherds (175g). Intrusive medieval, post-medieval and 19th to 20th century sherds were also present. Other finds from this layer include CBM (4813g), Fe fragments (335g), slag (1159g), glass (645g), charcoal (6g), burnt flint (34g), shell (193g) and 7g of residual struck flint. Of particular interest is a sizable animal bone assemblage (20706g), mostly comprising butchered mammal remains including elements of cattle, sheep/ goat and horse (Curl and Cussans this report – *The animal bone*). The horse remains include evidence of butchery on major meat-bearing elements and several pathological vertebrae suggest traction animals. Thumbprint depressions present on one sheep horn core may result from over-breeding, over-milking or harsh environmental factors, e.g. poor nutrition (*ibid.*). One element of pig was also recorded as were the remains of six dogs (of varying size/ breed) and a single cat (*ibid.*). Non-domestic species from L3947 comprise brown hare, mute swan (*Cygnus olor*) and whimbrel (*Numenius phaeopus*) (*ibid.*). The latter is a seasonal migrant and a cut to the femur of this example may indicate that it was consumed (*ibid.*). Overall, the faunal assemblage from this layer is characteristic of domestic dumping or, possibly,

feasting (*ibid.*). L3947 was extensively sampled for environmental remains and produced a notable molluscan assemblage (see below).

The area of the site occupied by Layer L3947 contained a large array of features dating between the prehistoric period (e.g. Pit F4570; Grid Square L11) and the modern era. As such, the large degree of intrusiveness and residuality in the finds assemblage from this layer is unsurprising, especially considering the intensity of modern activity. Stratigraphically, L3947 was less ambiguous; the primary relationships of this layer were with Roman Sub-Phase 6 Ditches F4106 (Grid Square J8-M10) and F4137 (Grid Square K12-M10), which it sealed, and with Period III Wall Cut F4234 (Grid Square K9-M10 and L11-M10). As such we can, with some confidence, associate this layer with the later Romano-British occupation of the site.

Molluscan evidence from Layer L3947 includes a high incidence of taxa with a low tolerance to disturbance, probably indicating that this part of the site was not intensively grazed towards the latter part of Roman Sub-Phase 6 (Summers this report – *The terrestrial molluscs*). This may be due to rising Fenland water levels, attested from the mid-3rd century onwards (e.g. Upex 2008, 176), which could have made certain areas of the site unusable. This part of the site lay less than 400m from the historic fen edge and Enclosure 36 appears to have become redundant prior to the deposition/ accumulation of L3947.

The remaining Roman Sub-Phase 6 spreads (L1225 (Grid Square D10 - D11) and L3715 (Grid Square S16)), Layer L1742 (Grid Square L17) and Subsoil L1246 (c. Grid Square K13) were less straightforward to phase. None yielded closely datable pottery (that from L3715 spanned the mid-2nd to 4th century) and Spread L1225 was devoid of finds. Spread L1246 sealed Roman Sub-Phase 6 Gully F1284 (Grid Square J13-L13) and was phased based on this relationship. Likewise, Layer L1742 sealed the north-eastern terminus of Gully F1511 (Grid Square K15-L17). The phasing of L1225 and L3715, however, was based chiefly on the location of these spreads in respect to Roman Sub-Phase 6 features. L1225 lay immediately adjacent to Gully F1221 (Grid Square D10-E10) in the western quadrant, while the nearest feature to L3715 was Ditch F2255 (=3612; Grid Square L11-U17), c. 2.5m to the south-east. This ditch comprised part of the north-west boundary of Enclosure 35. The only other finds from these deposits comprised modest quantities of animal bone, CBM and a single Fe fragment (collectively from L1246 and L3715).

Natural features

Three natural features were dated to Roman Sub-Phase 6. Two of these, Depressions F1012 (Grid Square A4 and B3-B4) and F2464 (Grid Square G8) were located within the western quadrant. Each contained a single fill and 'cut' Roman Sub-Phase 5 features; neither yielded notable finds. Substantial Tree Bole F5109 (Grid Square U9) was located in the south-eastern quadrant, within the confines of Enclosure 37. This feature yielded little of note and was only tentatively phased.

Focuses of Roman Sub-Phase 6 activity

Plotting the Roman Sub-Phase 6 CBM by weight (Fig. 175) revealed concentrations in the northern and south-western quadrants, particularly in Grid Squares K15 and

M10, each of which yielded in excess of 1501g. Weights between 1001g and 1500g were also recorded in Grid Squares F6 and M11, respectively in the western and south-western quadrants. None of the CBM was recovered from *in situ* collapse or demolition deposits. Features in the area of Structure 10, a possible roundhouse in the western quadrant, yielded only trace amounts of CBM, indicating that this building, if genuine, was unlikely to have contained a CBM component.

The elevated weight of CBM recovered from Grid Square K15 is mostly from Pit F1413. Totalling 21241g of material, the CBM from this feature appeared to form a central 'column' of material that may have been used as packing around a post (Peachey this report – *The ceramic building materials*). It did not appear to comprise a demolition 'dump' (*ibid.*). No obviously structural features were recorded in the immediate vicinity, however, and Structure 9, a possible pen c. 7.5m to the east, is unlikely to have incorporated a CBM component. Also, no structure belonging to the preceding Romano-British sub-phases, from which this sizable assemblage may have originated, was identified nearby. The elevated weight of CBM recorded in Grid Square M10 was equally lacking in structural affiliations.

Plotted weights of Roman Sub-Phase 6 pottery display a general distribution across the excavated area (Fig. 176), although discard was less evident in the western quadrant. Elevated weights of pottery (>1001g) were recorded in Grid Squares K9, L10-M10, P13, P15-P16 and Q15-Q16, though the majority of the diagnostic material from Roman Sub-Phase 6 Enclosure System 1 appears residual (Peachey this report – *The prehistoric and Roman pottery*). As such any 'peaks' in this otherwise sparse distribution of pottery are likely to relate to areas where Roman Sub-Phase 6 features truncated concentrations of earlier Roman activity (*ibid.*).

The nature of Roman Sub-Phase 6 activity

This later Romano-British sub-phase was dominated by a single large rectilinear enclosure (Enclosure 35), traversing the northern, south-eastern and south-western quadrants. Indications of smaller 'satellite' enclosures, including Enclosures 36 and 37, were also noted in addition to Enclosure 35a, a small, partially enclosed area within the confines of Enclosure 35. Sections of possible trackways or similar were also recorded, although none survived to any great length. Generally, the alignment of Roman Sub-Phase 6 ditches and gullies was similar to those observed in the earlier Roman sub-phases. Indeed, the boundaries of Enclosure 35 appeared to build directly upon features associated with the forerunning Roman Sub-Phase 5 'ladder' system (Enclosures 30-33).

Roman Sub-Phase 6 structural evidence was found across the site. A possible store house/ granary (Structure 7) located in the south-eastern quadrant was similar to earlier Structures 4-6 and may have indicated a degree economic continuity in this part of the site. A possible roundhouse (Structure 10) and two possible pens (Structures 8 and 9) were also recorded in addition to an array of possible structural remnants, particularly in the south-western quadrant (to the south-east of Enclosure 36). None of the structural remains appeared domestic in nature and none appeared to have included a considerable CBM component. Furthermore, the plotting of CBM weights across the Roman Sub-Phase 6 site did not highlight the potential position of any 'lost' structures.

Of particular interest were Cremation 1 (F1068; Grid Square B4), present in the southern part of the western quadrant, and a single infant burial (F1600; SK1) located within the western half of the northern quadrant. Cremation 1 (F1068) lay within a heavily disturbed area and it was not possible to confidently associate this deposit with any coherent landscape 'feature'. Ditch F1095 was recorded a short distance to the south-west, however, and it is possible that the cremation burial originally lay close to the edge of an enclosure or similar. Although inhumation had superseded cremation as the dominant funerary rite by the later Roman period, 4th century Romano-British examples are known, particularly from the east of England (Philpott 1991, 50). The dating of Cremation 1 remains tentative however.

The Romano-British infant burials in non-funerary contexts are not uncommon. For example, the remains of two infants were interred in 'scoops' at the site of Kilverstone in Norfolk (Garrow *et al.* 2006, 112). The older of the two was aged 9 months \pm 3 months while the younger individual died at birth \pm 2 months (*ibid.*). The partial, disarticulated remains of neonates/ infants were recovered from six other features at Kilverstone (*ibid.*). The Romano-British period at Kilverstone was characterised by an enclosed settlement landscape lacking a strong funerary component (Garrow *et al.* 2006, 104ff). Three later Roman adult graves were present however (Garrow *et al.* 2006, 118). Elsewhere, the burial of infants in a number of 'intra-site' feature types has been noted, including pits, linear features and under floors (Gurney 1998).

Fourteen associated bone groups (ABGs) were included in the Roman Sub-Phase 6 animal bone assemblage. These comprised examples of cattle, horse, sheep, pig, dog and domestic fowl and were mostly confined to the southern area of the site. Some of the medium-sized and larger animals displayed signs of skinning and two of the cattle (SKs 2 and 3) were missing their horn cores (removed prior to burial). However, none of the articulated remains showed signs of butchery for food. It is possible that these, at least in part, represent natural deaths resulting from old age, trauma or disease. The remains of a juvenile pig from Pit F4540 displayed lipping (pathological bone growth) on its vertebrae, which may be the result of trauma. Disease may not have left identifiable traces on the skeleton (Curl and Cussans this report – *The animal bone*). Disease-related mortality would certainly explain the lack of butchery recorded. A mixed group of at least six dogs from Layer L3947 may partly constitute the discarded remains of fighting dogs (*ibid.*); this interpretation remains tentative however.

A possible kiln (F3605) was identified in the northern site quadrant, to the south-east of Enclosure 38 (Grid Square P15). The fills of this feature yielded common to abundant charcoal and heather charcoal, the latter potentially representing kindling (Summers this report – *The carbonised plant macrofossils and charcoal*). Cereal remains dominated environmental samples from the fills of this feature, potentially indicating its function as a grain dryer or similar (*ibid.*). The remains of a substantial Romano-British drying building (structure 3) were found at Duxford, Cambridgeshire (Lyons 2011, 83ff), c. 38km to the south-east of Beck Row. Although the remains of this structure were considerably more elaborate than the Beck Row ?Kiln/ Oven, environmental samples collected were similarly dominated by cereal grains, particularly wheat (*Triticum* sp.; Fryer 2011, 87), possibly indicating a similar use. Tentative evidence of the deliberate malting of grain was also recovered from the

Duxford structure (*ibid.*). Although later than the possible Maltings reported to the north-east (MNL 502; Bales 2004), the presence of a 4th century feature associated with grain drying clearly demonstrates a degree of economic continuity over time within the immediate landscape.

To summarise, Roman Sub-Phase 6 appeared to encompass an agricultural landscape similar to the forerunning Roman sub-phases, although more 'open' in layout, with identified features spanning the whole site bar the far northern corner of the northern quadrant. An agricultural economy is reflected in the finds, ecofacts and environmental samples from associated features/ contexts, with the possible drying of cereals inferred by the presence of Kiln/ Oven F3605. The storage of grain or other perishable commodities is also suggested by the presence of Structure 7, a raised store house/ granary in the south-western quadrant. Environmental evidence from the latter part of this sub-phase suggests a reduced presence of livestock, certainly within the south-west quadrant (Summers this report – *The terrestrial molluscs*), contrary to the archaeological evidence from many Roman Sub-Phase 6 features/ contexts. The faunal assemblage from this sub-phase contains examples of all major domesticates and also suggests the exploitation/ consumption of wild species.

4.2.7 Roman Sub-Phase 7 (mid to late 4th century+ AD)

Summary

Roman Sub-Phase 7 at the former Smoke House Inn spanned the mid to late 4th century+ AD. In total, this sub-phase of activity comprised three ditches/ gullies, two pits and two layers, conforming to two distinct feature 'clusters' (Fig. 177). Curvilinear Ditch F1925 and Gully F1942 represented successive 'footings' of 'C'-shaped structures. In essence, this sub-phase embodied a straightforward continuation of earlier Roman Sub-Phase 6 activity. It is likely that many of the identified Roman Sub-Phase 6 features persisted well into the mid to late 4th century+ AD.

Roman Sub-Phase 7 Feature Cluster 1 (including Structures 11 and 12)

The northernmost cluster of features (Table 115) comprised curvilinear Ditch F1925 (Grid Square N15-N16 and P15-P16) and Gully F1942 (Grid Square N15-N16), and Pit F2032 (Grid Square N15). F1925 and F1942 were both 'C'-shaped in plan with their 'open' sides facing south-east (Fig. 177). Ditch F1925, hereafter referred to as Structure 12, was the larger of the two, incompletely encircling an area of c. 30m² and truncating stratigraphically earlier Gully F1942 (Structure 11). Pit F2032 was the stratigraphically latest of these features and truncated the south-western section of Structure 12. It is possible that Structures 11 and 12 represented successive outlines, constituting either footings for beams/ posts or eaves-drip gullies. As such they may have represented agricultural/ ancillary pens/ sheds or similar structures. The 'open' sides of these Structures were positioned somewhat away from the prevailing westerly to south-south-westerly winds recorded for this area (between November 2009 and December 2012; www.windfinder.com). Structures 11 and 12 were effectively located within the southern confines of Roman Sub-Phase 6

Enclosure 38, the use of which may have persisted into the second half of the 4th century AD.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1925	Ditch	N15 - N16 & P15 - P16	Curvilinear	16.36 x 1.45 x 0.48	Curvilinear	Gentle	Concave
1942	Gully	N15 – N16	Curvilinear	6.64 x 0.70 x 0.34	Curvilinear	U-shaped	Concave
2032	Pit	N15	-	0.25 x 0.24 x 0.26	Oval	U-Shaped	Flattish

Table 115: Roman Sub-Phase 7 feature cluster 1

Environmental sampling of Fill L1926 (Structure 12) yielded sparse cereal grains including barley, wheat and oat (sp.) as well as indeterminate grains (Summers this report – *The carbonised plant macrofossils and charcoal*). Identified wild taxa included wild pea/ pea family, grasses and sedges (*ibid.*). Charcoal <2mm in size was common from the sample, while charcoal >2mm was present in lesser quantities (*ibid.*). Heather charcoal was also present (*ibid.*).

Finds from Structure 12 include 14 sherds (171g) of 3rd to 4th century Roman pottery, which broadly agrees with the prescribed date range of Roman Sub-Phase 7. Other finds include 22 sherds of residual Roman pottery (collectively spanning the late 1st to 3rd centuries), apparently derived from the earlier features cut by F1925, modest quantities of CBM and 1608g of animal bone. The faunal assemblage from this structure comprises elements of cattle, horse, red deer and large terrestrial mammal, and includes evidence of canid gnawing and butchery (Cussans). The butchered remains include a horse metatarsal (Curl and Cussans this report – *The animal bone*). Of particular note is a complete bone hairpin of Crummy Type 3 recovered from Fill L1926 (Seg.E) of F1925 (SF20; Cooper this report – *The small finds*). This pin type was in use between c. AD 200 and the 4th century (*ibid.*).

Finds from earlier Structure 11 comprise two sherds of residual early 2nd to early 3rd century Roman pottery and 233g of CBM. The CBM recovered from the features forming Structures 11 and 12 is too little to represent demolition debris and it is unlikely that any structures represented by these features comprised a significant CBM component.

Roman Sub-Phase 7 feature cluster 2

The second ‘cluster’ of Roman Sub-Phase 7 features (Table 116; Fig. 177) was situated in the south-western quadrant and comprised curvilinear Ditch F3979 (Grid Square Q5-Q6) and Pit F3981 (Grid Square Q6). F3979 truncated Roman Sub-Phase 5 features in this part of the site and may have formed the north-eastern corner of an enclosure; this feature was largely obscured by the excavation edge. Pit F3981 was cut into the north-eastern section of F3979. This pit yielded no finds of any type and was phased based on its stratigraphic relationship with F3979. The latter produced a tightly dated assemblage of Roman pottery comprising one late 3rd to 4th century sherd (24g) and seven sherds (507g) dating to the mid-4th century+. These dates tally with the date range of Roman Sub-Phase 7. Other finds from F3979 comprise modest quantities of CBM and slag, and 3654g of animal bone. The faunal assemblage comprises elements of cattle, horse, sheep/ goat, pig, dog, large terrestrial mammal and medium terrestrial mammal, and includes evidence of canid gnawing (Cussans 2012). Environmental sampling of L3980 yielded nothing of

note. This feature cluster was spatially separate from features forming Roman Sub-Phase 6 Enclosure System 1.

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
3979	Ditch	Q5-Q6	Curvilinear	9.09 x 1.65 x 0.50	Curvilinear	Steep	Concave
3981	Pit	Q6	-	0.38 x 0.50 x 0.18	Sub-oval	Moderate	Concave

Table 116: Roman Sub-Phase 7 feature cluster 2

The Roman Sub-Phase 7 layers

Layers L3354 and L3355 (Table 117) were located around Grid Square N10, approximately equidistant between the two feature clusters outlined above (Fig. 177; the full extent of these contexts were not planned). As such, these layers may have been associated with late activity within the south-western part of Roman Sub-Phase 6 Enclosure 35. Both layers were comparatively rich in finds; L3354 yielded 75 sherds (1374g) of Roman pottery, including 16 4th century sherds (363g), 36 mid to late 4th century sherds (625g) and four late 3rd to 4th century sherds (60g). A quantity of residual pottery was also recovered. Other finds from this layer include CBM (1659g), worked stone (771g), ?pumice (409g), shell (10g), burnt flint (24g) and 30g of residual struck flint. This layer also yielded 8903g of animal bone, comprising elements of cattle, horse, sheep/ goat, pig, dog, large terrestrial mammal and medium terrestrial mammal, and included evidence of canid gnawing (Cussans 2012). One cattle tibia exhibits a pierced/ drilled hole, though this may have occurred during excavation (Cussans 2012).

Layer L3355 stratigraphically sealed L3354. Finds from this layer include relatively modest quantities of late 3rd to 4th and mid to late 4th century pottery as well as two intrusive medieval sherds. Other finds of note include 2658g of animal bone. The faunal assemblage comprises elements of cattle, horse, sheep/ goat, dog, red deer, bird, large terrestrial mammal and medium terrestrial mammal, and includes evidence of canid gnawing (Cussans 2012). The red deer element is a sawn antler and the single bird bone is a domestic fowl femur (Curl and Cussans this report – *The animal bone*). Bar mollusc remains (see below), environmental sampling of Layers L3354 and L3355 yielded nothing of note (Summers *pers. Comm.*). However, based on the finds-rich nature of these contexts, they may well have represented the deliberate spreading of midden-type material (possibly as a manure).

Context	Description	GS	Pottery	CBM	Animal Bone	Other Finds
3354	Layer	c. N10	75 sherds (1374g)	1659g	8903g	Worked stone (771g), pumice (409g), shell (10g), burnt flint (24g), struck flint (30g)
3355	Layer	c. N10	32 sherds (549g)	985g	2658g	Shell (44g), burnt flint (73g), burnt stone (20g)

Table 117: The Roman Sub-Phase 7 layers

Mollusc taxa in samples from L3354 and L3355, especially from the latter, indicate possible seasonal waterlogging of this area of the site. Moist, well vegetated conditions appear predominant above these midden deposits; aquatic taxa comprise just 3.33% of the mollusc assemblage from L3354.

Focuses of Roman Sub-Phase 7 activity

As expected, the distribution of CBM and Pottery (by weight; Figs. 178-179) within this sub-phase mirrors the locations of identified features/ layers. CBM was only recorded in modest quantities with the main concentration (three grid squares yielding between 601g and 800g each) being in the south-west quadrant. The area around Structures 11 and 12 produced even smaller amounts of CBM (no more than 200g to 400g per grid square) indicating that these structures were unlikely to have included a significant CBM component.

The distribution of pottery across this sub-phase was, broadly speaking, identical, although the weights recovered were more significant. The feature clusters yielded a total of 173 sherds (4012g) (Peachey this report – *The prehistoric and Roman pottery*). Furthermore, diagnostic material from all three groups indicates deposition no earlier than the mid 4th century AD (*ibid.*).

The nature of Roman Sub-Phase 7 activity

Given the overall dearth of archaeology, it is difficult to infer much regarding the nature of this ultimate Roman sub-phase. It is perhaps best considered in unison with forerunning Roman Sub-Phase 6, many elements of which are likely to have persisted well into the mid to late 4th century+. Structures 11 and 12 probably represented the outlines of agricultural buildings or pens and were likely related to the later use of Enclosure 38. Similarly, Layers L3354 and L3355 were most probably the result of agricultural activity in the south-western part of Enclosure 35. However, the immediate area surrounding these contexts was heavily truncated by modern activity. Ditch F3979 (Grid Square Q5-Q6) may well have formed the north-eastern corner of an enclosure or similar, but was only partially revealed within the excavated area. Environmental conditions suggest varying degrees of seasonal inundation and drying during Roman Sub-Phase 7.

4.3 Period III (post-Roman)

Summary

Post-Roman activity at the former Smoke House Inn, prior to the 20th century construction of the Inn and associated buildings, appears to have been largely agricultural in nature and on a much reduced scale compared with earlier periods. The majority of Period III ditches and gullies followed north-west to south-east alignments, broadly parallel to boundaries depicted on the 1882 and 1904 Ordnance Survey maps, whilst a short section of contemporary walling (M4379) was similarly aligned, running north-west to south-east/ east-north-east to west-south-west (Fig. 180). Seven associated bone groups (ABGs) were also assigned to the post-Roman period. Three of these were partially enclosed by an area defined by Wall M4379 and associated features. A possible quarry Pit (F2586) was identified in the far northern corner of the northern quadrant. The Period III small finds assemblage is largely unremarkable, bar two copper alloy sheet fittings (SFs 33 and 34), at least one of which is Roman in date.

Period III ditches and gullies

Numbering ten in total (Table 118), the Period III ditches and gullies were confined to the south-western and western site quadrants and were predominantly aligned north-west to south-east (Fig. 180). These features were broadly parallel to field/ plot boundaries depicted on the 1882 and 1904 Ordnance Survey maps. A similar pattern of post-medieval field boundaries was identified at the adjacent Maltings site (MNL 502; Bales 2004, 6, fig. 3). Post-Roman evidence from earlier excavations within the confines of the current site (MNL 608) and to the immediate north-east, adjacent to Skelton's Drove (MNL 598), were limited however to a small number of isolated finds (Craven 2011, 45, 48).

Feature	Type	GS	Orientation	Size (m)	Plan	Profile	Base
1006	Ditch	A3-A4	NW-SE	1.58 x 1.10 x 0.60	Linear	Vertical	Flat
1024	Ditch	B5-C4	NW-SE	14.00 x 0.71 x 0.50	Linear	U-Shaped	Concave
1050	Ditch	B5-B6	NW-SE	7.90 x 0.71 x 0.64	Linear	U-Shaped	Flat
1079	Ditch	B4	NW-SE	2.50 x 0.80 x 0.55	Linear	Steep	Flattish
1083	Ditch	B4-B5	NW-SE	1.18 x 0.79 x 0.47	Linear	Steep	Flattish
1085	Ditch	A5-B5	NW-SE	1.18 x 0.83 x 0.40	Linear	Steep	Concave
1157	Ditch	C8	E-W	2.01 x 1.14 x 0.20	Linear	Gentle	Concave
3455	Ditch	P9-Q8	NW-SE	? X 0.56 x 0.14	Linear	Moderate	Concave
3539	Ditch	Q7-R6	NW-SE	7.24+ x 0.95 x 0.29	Linear	Moderate	Concave
3581	Gully	G3-G4	NNW-SSE	8.06+ x 0.96 x 0.28	Linear	Moderate	Concave
4336	Gully	L9-M9	ENE-WSW	13.11 x 1.00+ x 0.26	Linear	Gentle	Concave

Table 118: Period III linear features

Six ditches (F1006 (Grid Square A3-A4), F1024 (Grid Square B5-C4), F1050 (Grid Square B5-), F1079 (Grid Square B4), F1083 (Grid Square B4-B5) and F1085 (Grid Square A5-B5)) located in the southern part of the western quadrant appeared to form a coherent complex of three evenly-spaced boundaries (Fig. 180). The 9.5m gaps between these features may have comprised surviving elements of small plots or enclosures. Further to the east (south-western quadrant), the extrapolated alignments of short Ditches F3455 (Grid Square P9-Q8) and F3539 (Grid Square Q7-R6) were separated by an identical distance, possibly indicating continuity of land use across the southern part of the excavation.

Substantial Gully F4336 (Grid Square L9-M9) was perfectly aligned with part of a wall foundation trench (F4234; Grid Square K9-M10 and L11-M10), a short distance to the north-west (Fig. 180).

Finds from the Period III linear features are mostly unremarkable and are thought indicative of general loss/ discard or possible manuring activity. Five sherds of post-medieval pottery, totalling 150g, were recovered from Ditches F1006 (Grid Square A3-A4) and F3539 (Grid Square Q7-R6), while four medieval sherds (98g) were yielded by the single fill of Gully F3581 (L3582). The latter was isolated from similar Period III features and followed a slightly different alignment (Table 118). A few residual Roman sherds (not closely datable) were also recovered from these features. Other finds from the Period III ditches/ gullies include animal bone, shell and glass, all in modest quantities. Two Fe fragments (96g in total) were also found.

Wall M4379

A single section of post-medieval walling was identified in the south-western quadrant of the site, running parallel, in part, with Period III Gully F4336 (Grid Square

L9-M9; see above; Fig. 180). The surviving element of the wall was contained by 'L'-shaped Foundation Trench F4234 which truncated Roman Sub-Phase 6 features in this part of the site and partly enclosed three animal burials (see below); these are likely to post-date M4379. The foundation trench was aligned north-north-east to south-south-west/ north-west to south-east (Grid Square K9-M10 and L11-M10). Wall M4379 comprised a single course of orange/ red bricks (one row of stretchers and another of headers laid in a ratio of 1:2) bounded on both sides by chalk packing and poured mortar (M4382). The latter was not strongly bonded to the brick. The masonry components were set into two, consecutive loose sandy fills (L4380 and L4381) lining the base of the foundation cut (F4234). Wall M4379 occupied an area of structures marked on the 1882 and 1904 Ordnance Survey maps. Pottery from nearby Animal Burial F4455 suggests that this wall was constructed around the 17th/ 18th century (see below). This area of the site was subsequently sealed by a tile levelling course (M3948), post-dating the collapse or robbing of Wall M4379 and most probably comprising material from the post-medieval structures that occupied this area.

Period III pits

Of the 12 Period III pits identified at the former Smoke House Inn (Table 119), Pit F2586 (Grid Square Q20-Q21, R20-R21 and S21) was the only one of any particular note. This feature contained six consecutive fills and was interpreted as a possible chalk quarry pit. Only Fills L2588, L2589 and L2626 yielded finds, including two sherds (5g) of post-medieval pottery from secondary Fill L2588. Other finds from Pit F2586 include modest quantities of residual late 3rd to 4th century Roman pottery, CBM and animal bone. Of particular note are two copper alloy sheet fittings (SFs 33 and 34) also from secondary Fill L2588 (Cooper this report – *The small finds*). Small Find 33 comprises a domed stud with integral tapering shaft and is probably Roman in date (*ibid.*). Small Find 34 appears to be a boss or draw escutcheon, perhaps from a box (*ibid.*). It appears that following its useful life, this pit was steadily backfilled with general refuse and/ or gradually accumulated surface material. The Romano-British material could have derived from any one of a number of earlier features truncated by this pit. F2586 was more-or-less isolated from other Period III features.

Feature	GS	Size (m)	Plan	Profile	Base
1125	C8	1.16 x 0.72 x 0.31	Oval	Steep	Flattish
1163	E9	0.80 x 0.70 x 0.35	Oval	Moderate	Concave
1562	L16	0.70 x 0.48 x 0.20	Oval	Moderate	Flat
2586	Q20-Q21, R20-R21 and S21	11.80 x 11.20 x 0.91	Irregular	Steep	Flattish
3756	P15	1.12 x 0.90 x 0.04	Rectangular	Gentle	Flat
3783	Y10	0.80 x 0.40 x 0.20	Sub-Oval	Moderate	Flat
4026	Q5-R5	0.90+ x 0.65+ x 0.83	Sub-oval	Very steep	Flattish
4054	M9-N9	6.36+ x 5.42 x 0.85	Sub-circular	Moderate	Flattish
4332	M9	0.75 x 0.76 x 0.25	Sub-circular	Moderate	Concave
4465	L11	0.40 x 0.35 x 0.33	Sub-rectangular	Very steep	Flat
5172	X10	4.26 x 1.46 x 0.18	Sub-rectangular	Moderate	Irregular
5174	X10	4.00 x 0.66 x 0.14	Sub-rectangular	Moderate	Flat

Table 119: Period III pits

Medieval and post-medieval quarrying is well attested regionally. A pair of large post-medieval quarry pits was recorded at 2-12 All Saints Road, Newmarket (Barlow 2010), whilst closer to the current site, a post-medieval chalk quarry pit was encountered during evaluation work at West Row Primary School (Brooks and

Tester 2012). The Newmarket quarry pits, like that encountered at the former Smoke House Inn, displayed multiple fills (Barlow 2010, 13) indicative of a protracted backfilling process.

Period III Postholes

Five postholes were assigned to Period III. Two of these (F2672 and F2929; Grid Square Q20; Table 120) were spaced c. 4m apart in the northern quadrant of the site. Both contained poured concrete fills originally surrounding wooden posts (decayed) and both features were sealed by post-medieval/ early modern Subsoil L1090 (see below). Neither feature yielded notable finds. Given the nature of their fills it is extremely likely that these features were functionally similar/ related, though their precise function is uncertain.

The remaining Period III postholes (F1054, F4083 and F4585; Table 120) were generally unremarkable. However, the packing of F4083 (L4083), set around an *in situ* wooden post, did contain a single, residual fragment of Gritstone quern (Cooper this report – *The small finds*).

Feature	GS	Size (m)	Plan	Profile	Base
1054	C7	0.25 x 0.10 x 0.20	Irregular	Vertical	Flattish
2672	Q20	0.44 x 0.38 x 0.45	Oval	U-shaped	Flattish
2929	Q20	0.38 x 0.32 x 0.55	Rectangular	U-shaped	Flattish
4083	M10	0.30 x 0.26 x 0.10	Circular	Gentle	Concave
4585	M10	0.55 x 0.45 x 0.25	Sub-circular	Steep	Concave

Table 120: Period III Postholes

Period III Layers

Consecutive Layers L4000 and L4001 were located in the south-west quadrant (c. Grid Square Q5-R5), sealing unphased Pit F1026. L4000 yielded the only small finds, comprising 44 sherds of post-medieval pottery (1098g), CBM (5120g), animal bone (998g) and shell (154g). The mammalian component of the faunal assemblage comprised elements of cattle, sheep/ goat and large terrestrial mammal, and was without any distinguishing features (Cussans 2012). Post-medieval/ early modern Subsoil L1090 was identified in various parts of the site and yielded a comparable and homogenous finds assemblage of little note. It is probable that the finds from these layers derived principally from post-medieval activity associated with the buildings and plots in the south of the excavated area, marked on the early cartographic sources. Such activities would no doubt have included the accumulation and spreading of midden/ manure for agricultural/ horticultural purposes.

The Period III associated bone groups

Seven ABGs were dated to the post-Roman period (Table 121; Fig. 180). Three of these features containing these remains (F2458 (Grid Square G8), F4188 (Grid Square M10) and F4455 (Grid Square L10)) yielded Period III pottery, whilst the remainder were dated based on their stratigraphic relationships and/ or their locations in respect to dated features. F4455 (GS L10 - L11), F4457 (GS L10 - L11) and F4577 were parallel to one another, equally spaced (indicating their contemporaneity), and were perfectly aligned with Period III Wall Foundation Trench

F4234 (see above). As such, five sherds (43g) of 17th to 18th century pottery recovered from F4455 provide an indirect *terminus ante quem* for the construction of Wall M4379. F4455 and F4457 each contained the remains of two cattle (Curl and Cussans this report – *The animal bone*). The bones from F4455 were almost exclusively (bar a single tooth) from a single adult animal displaying evidence of butchery and pathology (*ibid.*). The legs of this animal had been removed prior to burial and placed above the carcass within F4455. Bar some adult feet and jaw bones/ fragments, the cattle remains from F4457 are those of a juvenile animal that had also had its legs removed and placed separately within the feature (*ibid.*). Cuts on the frontal bone of this individual are indicative of skinning (*ibid.*). Pit F4577 yielded the remains of one juvenile and one neonate/ foetal pig (the latter represented by a skull and mandible only; *ibid.*). The juvenile skeleton was articulated, aligned south-east to north-west.

Feature	GS	Size (m)	Plan	Profile	Base	Species present
4188	M10	0.92 x 0.45 x 0.11	Rectangular	Steep	Flat	Cattle
4455	L10-L111	2.35 x 0.75 x 0.56	Sub-rectangular	Very steep	Flattish	Cattle
4457	L10-L111	2.70 x 0.88 x 0.56	Sub-rectangular	Very steep	Flat	Cattle
2440	G8	1.29 x 0.61 x 0.30	Ovoid	Vertical	Irregular	Pig
1125	C8	1.16 x 0.72 x 0.31	Oval	Steep	Flattish	Pig
2458	G8	1.20 x 0.66 x 0.50	Sub-rectangular	Vertical	Flat	Pig
4577	L10	1.11 x 0.48 x 0.16	Sub-rectangular	Steep	Flattish	Pig

Table 121: Period III ABGs

Further pig ABGs were present within F1125 (Grid Square C8) F2440 (Grid Square G8) and F2458 (Grid Square G8) (Table 121). The former comprised a juvenile skeleton with evidence of an infection on the mandible (*ibid.*). F2440 and F2458 each contained the complete or partial skeletons of juvenile animals plus elements of at least one other individual of the same species (*ibid.*).

F4188 (Grid Square M10) yielded the remains of a neonate calf and two adult teeth of the same species (the latter are likely residual; *ibid.*).

The nature of Period III activity

The majority of Period III features and layers encountered at the former Smoke House Inn were agricultural or domestic in nature, material from the latter probably deriving from former structures in the south of the site fronting The Street (depicted on the 1882 and 1904 Ordnance Survey maps. The associated bone groups appeared to chiefly constitute the disposal of whole carcasses and/ or economically poor elements. Skinning and horn core removal was evident but not butchery for meat, suggesting that the animals died of natural causes and were not deemed fit for consumption. Three of the features containing ABGs were aligned with red-brick Wall M4379 which was probably constructed around the 17th/ 18th century. Possible chalk quarrying activity was indicated by Pit F2586, the secondary fill of which (L2588) yielded two copper alloy sheet fittings, one of which (SF33) is probably Roman in date. This context also produced post-medieval pottery however.

Like other sites in the immediate vicinity (e.g. MNL 502; Bales 2004), a number of field/ plot boundaries were identified which broadly agreed with the orientation of boundaries depicted on early cartographic sources. It appears that the land to the north of The Street (and domestic structures thereon) comprised rough grazing and arable subject to pre-18th century enclosure.

5 SPECIALIST REPORTS

5.1 The prehistoric and Roman pottery

Andrew Peachey

Excavations recovered a total of 7805 sherds (150087g) of pottery, including a small component of late Bronze Age to late Iron Age pottery, but with the bulk of the assemblage dating the Roman period (Period II; Table 122). The Roman pottery spans seven sub-phases of activity that commence at the beginning of the 2nd century AD and continue through to the latter half of the 4th century AD and the decline of Roman occupation. The bulk of the Roman pottery was contained in a series of enclosure systems that were re-modelled or re-established throughout the Roman period. The significant level of pottery deposition within/ close to parts of these enclosure systems indicates a high level of consumption that may be related to potential trade or commercial activity on the site, or to significant domestic occupation in the close vicinity.

Phase	Sherd Count	Weight (g)	R.EVE
Period I: Pre-Roman	59	1091	0.22
Period II: Roman Sub-Phase 1	489	9620	5.90
Period II: Roman Sub-Phase 2	1767	38511	20.30
Period II: Roman Sub-Phase 3	1195	23888	13.34
Period II: Roman Sub-Phase 4	1106	19291	11.11
Period II: Roman Sub-Phase 5	1046	17571	8.01
Period II: Roman Sub-Phase 6	1424	24458	12.91
Period II: Roman Sub-Phase 7	173	4012	2.42
Period III: Post-Roman	225	5480	1.07
Un-phased	295	5753	1.17
Un-stratified	26	412	0.30
Total	7805	150087	76.75

Table 122: Total Quantification of Pottery in Periods and Sub-Phases

Methodology

The pottery was quantified by sherd count, weight (g) and R.EVE with fabrics examined at x20 magnification in accordance with the guidelines of the Prehistoric Ceramics Research Group (PCRG 1995) and the Study Group for Roman Pottery. Fabric codes and descriptions were cross-referenced, where possible, to the National Roman Fabric Reference Collection (Tomber and Dore 1998) or appropriate regional kiln groups, while local or indistinguishable coarse wares were assigned an alpha-numeric code and are fully described in the report. Samian ware forms reference Webster (1996); samian ware stamps are referenced to the index developed by Hartley and Dickinson (2008; 2010; 2011), and amphora form types are cross-referenced with Williams (2005). All data have been entered into a Microsoft Excel spreadsheet that forms part of the site archive.

The Prehistoric Pottery

The assemblage contained a total of 168 sherds (2293g) of prehistoric pottery, of which 34.5% by sherd count (47.4% by weight) were contained in Period I features (Table 123), including late Bronze Age/ early Iron Age and middle-late Iron Age pits.

Period	Sherd Count	Weight (g)	R.EVE
Period I (Prehistoric)	58	1087	0.22
Periods II-III (Roman and post-Roman)	110	1206	0.17
Total	168	2293	0.39

Table 123: Quantification of prehistoric pottery in Period groups

Three prehistoric pottery fabrics were recorded in the assemblage:

- F1 Coarse flint-tempered, hand-made, bonfire-fired. Red-brown exterior surfaces fading to a dark grey/ black interior, with inclusions of common calcined flint (0.5-3mm, occasionally large).
- F2 Fine flint-tempered, hand-made, bonfire-fired. Red-brown exterior surfaces fading to a dark grey/black interior, with inclusions of sparse calcined flint (0.5-1mm, occasionally to 2mm) and sparse quartz (<0.5mm). Late Bronze Age/ early Iron Age.
- Q1 Gritty, sandy fabric, hand-made, bonfire-fired. Pale brown-red exterior fading to a dark-grey/ black interior. The fabric comprises a poorly-sorted suite of sparse inclusions, including quartz (<0.5mm), calcined flint (<3mm), angular grog/ clay pellets (<3mm) and burnt organics/ voids (<5mm). Middle-late Iron Age.

The late Bronze Age/ early Iron Age pottery

The pottery contained in the late Bronze Age/ early Iron Age features is categorised by the coarse and fine calcined flint-tempered fabrics F1 and F2. A total of 48 sherds (516g) of fabrics F1 and F2 were contained in Period I features, notably in the Pit Cluster formed of Pits F4320, F4322 and F4326, associated Pits F3527 and F3387, and dispersed Pits F4303 and F4977. Comparable flint-tempered fabrics were recorded in adjacent excavations at Beck Row (Tester 2004, 34: fabrics F1 and F2) and are typical of the pottery in northern East Anglia between c. 1100-350 BC for which the distinction between late Bronze Age and early Iron Age has been increasingly discarded in favour of continuation of fabric with the progression of some form types (Brudenell 2011, 12-13).

Pit F4303 (L4531) is notable amongst the Period I features as it contained the angled shoulder of a fabric F1 vessel, typical of jars in the post-Deverel-Rimbury ceramic style of the late Bronze Age/ early Iron Age (Brudenell 2011: figs. 3, 5-6). Further fabric F1 vessels of this type were present as residual material, notably in Posthole F1758 (L1759) (Fig.181.1), while a further shoulder fragment was contained in Ditch F1145 (L1146 Seg.A).

The remaining Period I features include Gully F3363, which contained a carinated bowl in fabric F2 (Fig.181.2). The bowl, classified in West Harling Class VI of coarse undecorated vessels (Clark and Fell 1953, 15) has a burnished exterior and is typical of vessels recorded in earliest Iron Age (c. 800-600 BC) assemblages in the region (Brudenell 2011: fig. 5). A further fabric F2 vessel of this type (Fig.181.3) was also recovered as residual material from Gully F3428. The profiles of the vessels in fabrics F1 and F2, combined with the lack of any decoration suggests that these fabrics may have been associated with a single episode of occupation at Beck Row in the very early Iron Age (c. 800-600 BC), however it remains possible that these vessels represent a small group of plain post-Deverel-Rimbury pottery that date to the late Bronze Age (c. 1100-800 BC).

The middle to late Iron Age pottery

The middle to late Iron Age pottery is characterised by the predominantly sand-tempered fabric Q1, which accounts for 27 sherds (791g) of the prehistoric pottery including 16 sherds (649g) in Period I features. Sand-tempered fabrics largely replaced flint-tempered fabric in the middle Iron Age in Suffolk and remained common throughout the late Iron Age (Martin 1999a, 80). Comparable mid to late Iron Age vessels in sand-tempered fabrics have been recorded at adjacent excavations in Beck Row (Tester 2004, 34: fabrics QS1-2; 2006, 13; 2008, 20), and are the dominant component of contemporary assemblages from the region including at Barnham (Martin 1993), Thetford (Gregory 1991a; Gregory 1991b) and Feltwell (Gurney 1986a).

The entirety of the fabric Q1 sherds in Period I features were contained in Pits F4506 and F4570, including in Pit F4506 (L4507) a high-shouldered jar with a single row of slashed/ finger-nail decoration on the shoulder (Fig.181.4). A comparable middle-late Iron Age vessel was recorded at Aldwick (Cra'aster 1961, 39: fig. 8.66), while this type of decoration was also noted at West stow (West 1990, 60). The jar also has traces of soot on the interior suggesting it was possibly used as a cooking vessel.

The Roman Pottery

A total of 720 sherds of pottery (137351) were contained in the seven stratigraphic sub-phases (Roman Sub-Phases 1-7) of Roman activity in Period II, with additional sherds present as un-phased or un-stratified material (Table 122). The chronology of the Roman sub-phases can be summarised as:

Roman Sub-Phase 1:	Early 2 nd century AD
Roman Sub-Phase 2:	Early to mid/ late 2 nd century AD
Roman Sub-Phase 3:	Late 2 nd to early 3 rd century AD
Roman Sub-Phase 4:	Early to mid-3 rd century AD
Roman Sub-Phase 5:	Mid 3 rd to early 4 th century AD
Roman Sub-Phase 6:	Early to mid-4 th century AD
Roman Sub-Phase 7:	Mid to late 4 th century+ AD

The Roman pottery from Roman Sub-Phases 1-7 encompasses a broad range of samian ware, fine ware, coarse ware and mortaria fabric and form types that were manufactured locally and regionally, and imported to Beck Row and East Anglia between the early 2nd and 4th centuries AD. In total, 53 individual Roman fabrics or fabric groups could be identified in the assemblage:

Samian ware

LGF SA	La Graufesenque samian ware (Tomber and Dore 1998, 28)
MON SA	Montans samian ware (Tomber and Dore 1998, 29)
LMV SA	Les Martres-de-Veyre samian ware (Tomber and Dore 1998, 30)
LEZ SA1	Lezoux (1st century) samian ware 1 (Tomber and Dore 1998, 31)
LEZ SA2	Lezoux samian ware 2 (Tomber and Dore 1998, 32)
CHF SA	Chemery-Falquemont samian ware (Tomber and Dore 1998, 36)
TRI SA	Trier samian ware (Tomber and Dore 1998, 41)
RHZ SA	Rheinzabern samian ware (Tomber and Dore 1998, 43)

Fine ware

CNG CC2	Central Gaulish colour-coated ware 2 (Tomber and Dore 1998, 53)
CNG BS	Central Gaulish black-slipped ware (Tomber and Dore 1998, 50)
KOL CC	Cologne colour-coated ware (Tomber and Dore 1998, 57; Davies <i>et al.</i> 1994, 131)
LON MD	London mica-dusted ware (Davies <i>et al.</i> 1994, 136: LOMI-1244; Seeley <i>et al.</i> 2005, 120: LOMI RTS 508). Dull red brown surfaces with bronze mica coating fading to a dark grey core. Inclusions comprise common, moderately sorted quartz (0.1-0.5mm), sparse red/black iron-rich clay pellets (<0.5mm) and occasional voids (0.25-1.5mm, possibly dissolved calcareous or burnt-out organic inclusions).
COL CC1	Colchester (early) colour-coated ware 1 (Tomber and Dore 1998, 132)
LVN CC	Lower Nene Valley colour-coated ware (Tomber and Dore 1998, 118)
PAK CC	Pakenham colour-coated ware (Tomber and Dore 1998, 182)
OXF RS	Oxfordshire red-slipped ware (Tomber and Dore 1998, 177)
HAD OX	Hadham oxidised ware (Tomber and Dore 1998, 151)
OXF1	Fine oxidised ware 1. Pale to mid orange surfaces fading to an orange-brown core. Inclusions comprise common, well-sorted quartz (<0.25mm), notably white quartz, with sparse red to red-brown clay pellets (0.5-1.5mm) and sparse fine mica. A moderately hard fabric with a smooth to slightly powdery feel.
WES FR	West Stow fine reduced ware (Tomber and Dore 1998, 185). Dark brownish-grey surfaces fading to a dark grey core, often with contrasting brown-grey margins. Inclusions comprise common fine quartz and mica (<0.1mm), sparse red/black iron rich grains (<0.25mm) and sparse clay pellets (0.25-1.5mm). A hard fabric with a smooth (often highly burnished) finish.
GRF1	Fine reduced (grey-slipped) ware 1. Mid grey (slipped) surfaces with a slightly darker core. Inclusions comprise well-sorted, common translucent quartz and sparse black iron ore/stone (both <0.1mm). A moderately hard fabric with a smooth finish.
GRF2	Fine reduced ('London') ware 2. Black surfaces fading to a brown-yellow core, mica is especially visible on the surface. Inclusions comprise well-sorted, common-abundant fine quartz (<0.1mm) with sparse translucent quartz grains (<0.5mm), common very fine mica and sparse-occasional chalk/limestone (generally <0.5mm, occasionally to 2mm). A hard fabric with a smooth to glossy finish. Probably a West Stow product (Tomber and Dore 1998, 185).

White and white-slipped wares

WES CR1	West Stow 'smooth' cream ware 1 (West 1990, 76: fabric 1). Cream to pale brown surfaces, fading to a slightly darker yellow-brown core. Inclusions comprise common-abundant quartz (0.1-0.25mm), sparse iron-rich grains and clay pellets (<2mm) and occasional flecks of chalk (1-3mm). A hard fabric with smooth to slightly abrasive surfaces
WES CR2	West Stow 'sandy' cream ware 2 (West 1990, 76: fabric 1), alternatively may be a Colchester product. Cream to pale brown surfaces, fading to a slightly darker yellow-brown core, often with exterior oxidised orange margins. Inclusions comprise common-abundant quartz (0.1-0.5mm), sparse iron-rich grains and clay pellets (<1mm) and occasional flecks of chalk (1-3mm). A hard fabric with smooth to slightly abrasive surfaces
LVN WH	Lower Nene Valley white ware (Tomber and Dore 1998, 119)
VER WH	Verulamium region white ware (Seeley and Drummond-Murray 2005, 84; Davies <i>et al.</i> 1994, 41)
OVW WH	Overwey white ware/ Portchester Fabric D (Tomber and Dore 1998, 146; Lyne and Jefferies 1979)
OXF WS	Oxfordshire white-slipped ware (Tomber and Dore 1998, 176)
UNS WS1	Un-sourced white-slipped ware 1, possibly from the Godmanchester kilns (Evans, CJ 2003, 209: P05/06). Off-white slipped surfaces, a pale brown to cream core, with light orange or mid grey margins. Inclusions comprise common, well-sorted, sub-angular to angular quartz (<0.25mm, occasionally to 0.5mm), sparse black iron rich grains (0.1-1.0mm) and occasional red iron rich grains (0.1-0.5mm). Godmanchester appears the most likely producer but Verulamium (Tomber and Dore 1998, 154), the possible origin of the Godmanchester potters remains a possibility
UNS WS2	Un-sourced white-slipped ware 2, possibly from Verulamium (Seeley <i>et al.</i> 2005, 109). Off-white slipped surfaces, and a pale to mid orange core. Inclusions comprise

common, well-sorted, sub-angular to angular quartz (0.1-0.5mm), sparse red iron rich grains (0.1-0.75mm) and occasional flint (0.5-2mm)

UNS WS3 Un-sourced white-slipped ware 3. White-slipped orange red surfaces that fade to an orange-brown core. Inclusions comprise common quartz (<0.2mm), sparse red/black iron rich grains (0.1-0.5mm), sparse fine mica and sparse-occasional flecks of chalk (0.25-2mm).

Local and Regional coarse wares

WAT RE1 Wattisfield/Waveney Valley reduced ware (Tomber and Dore 1998, 184). A mid to pale grey fabric, often with slightly contrasting margins and core. Inclusions comprise common, well-sorted quartz (generally <0.1mm), sparse iron rich grains (<0.5mm) and abundant mica, especially visible on the surface. The fabric has a slightly abrasive to powdery feel

WAT RE2 Wattisfield/ Waveney Valley reduced ware (Tomber and Dore 1998, 184). As WAT RE1 but with very dark grey to black surfaces

HOR OX Horningsea oxidised ware (Tomber and Dore 1998, 116; Evans 1991, 35). Mid-dark orange surfaces contrasting with a mid-orange or grey core. Inclusions comprise common quartz (0.1-0.5mm) with sparse limestone and grog/ironstone (generally <2mm) and occasional flint (0.5-5mm)

HOR RE Horningsea reduced ware (Tomber and Dore 1998, 116; Evans 1991, 35). Mid to dark grey surfaces with a reduced mid-grey core and sometimes oxidised margins. Inclusions comprise common quartz (0.1-0.5mm) with sparse limestone and grog/ironstone (generally <2mm) and occasional flint (0.5-5mm)

GRS1 Sandy grey ware 1. Reduced mid to dark grey, often with contrasting surfaces and core. Inclusions comprise common-abundant, moderately sorted quartz (0.1-0.5mm), sparse fine mica, sparse iron rich grains (0.25-1mm) and occasional flint (<5mm). A hard fabric with an abrasive feel

GRS2 Sandy grey (fine) ware 2. A mid to pale grey fabric, often with slightly contrasting margins and core. Inclusions comprise common, well-sorted quartz (generally <0.1mm), occasional iron rich grains (<0.5mm) and common fine mica, especially visible on the surface (but not as abundant as WAT RE1). The fabric has a slightly powdery to smooth feel

GRS3 Sandy grey (granular) ware 3. Mid grey surfaces, pale grey margins and a mid grey core. Inclusions comprise common-abundant well-sorted quartz (0.1-0.5mm), with sparse black iron rich grains (<0.5mm) and occasional chalk flecks (<0.25mm). A very hard fabric with a pimply/ abrasive feel

BSW1 Black-surfaced grey ware 1. Black micaceous surfaces, a mid grey to grey brown core, sometimes with thin red brown margins. Inclusions comprise common quartz (generally <0.2mm), sparse red/ black iron-rich grains (0.1-0.5mm) and sparse-common fine mica. A hard fabric with a slightly powdery or abrasive feel

BSW2 Black-surfaced grey ware 2. Black/ very dark grey surfaces, dark grey-brown margins and a mid grey core. Inclusions comprise common-abundant, well-sorted quartz (0.1-0.5mm), sparse black to grey brown iron-rich grains/ clay pellets (0.1-1mm). A non-micaceous fabric with a slightly abrasive to powdery feel

NAR RE1 Nar valley reduced ware 1 (Andrews 1985, 89: RW1; Gurney 1986, 77: RW1). Grey-brown to burnt-orange in colour with a granular fracture. Known to have been produced at East Winch (Peachey *forthcoming*: fabric NAR RE1) but probably produced at other centres in the Nar Valley including Pentney and Shouldham

COL BB2 Colchester black-burnished ware 2 (Tomber and Dore 1998, 131)

LNV GS Lower Nene Valley grey-slipped ware (Perrin 1999, 78)

ROB SH1 Romano-British shell-tempered ware 1 (Tomber and Dore 1998, 212), wheel-made with common, moderately sorted shell (0.5-3mm)

Mortaria

COL WH (M) Colchester white ware mortaria (Tomber and Dore 1998, 133)

LNV WH (M) Lower Nene Valley white ware mortaria (Tomber and Dore 1998, 119)

OXF RS (M) Oxfordshire red-slipped ware mortaria (Tomber and Dore 1998, 177)

OXF WS (M) Oxfordshire white-slipped ware mortaria (Tomber and Dore 1998, 176)

HAD OX (M) Hadham oxidised ware mortaria (Tomber and Dore 1998, 151)

SWN WS (M) Swanpool white-slipped ware mortaria (Tomber and Dore 1998, 164)

MAH WS (M) Mancetter-Hartshill white-slipped ware mortaria (Tomber and Dore 1998, 190)

Amphora and storage jar

BAT AM2 Baetican (Late) amphorae 2 (Tomber and Dore 1998, 85)

NOM AM Normandy amphorae - Gauloise12/ Peacock and Williams Class 55 (Williams 2005; Tomber and Dore 1998, 100)

STOR1 Storage Jar fabric 1. Mid orange surfaces fading to a thick dark grey core. Inclusions comprise common angular grog - reduced in the core/ oxidised on the surfaces (0.25-2.5mm), quartz (0.1-0.25mm) and sparse-occasional chalk (0.5-4mm). A hard fabric with a slightly soapy feel

The Roman Pottery by Fabric Type

Samian Ware

The assemblage contained a total of 173 sherds (2406g. R.EVE: 4.69) of samian ware, accounting for a minimum of 66 vessels, which were almost entirely contained in Roman Sub-Phases 1-7 (Table 124). Despite the presence of very low quantities of samian from south Gaul, which was imported from the mid 1st century AD, the limited range of cups from south Gaul appear to date to the beginning or early in the 2nd century AD, contemporary with the more common central Gaulish samian ware. The bulk of the samian ware is accounted for by central Gaulish fabrics, predominantly from Lezoux (LEZ SA2) but also including other central Gaulish fabrics. The central Gaulish samian is represented by a relatively limited range of cup and dish forms, including four bases bearing maker's stamps, as well as occasional bowls with moulded decoration. The distribution of samian ware in the stratigraphic groups shows a strong focus of consumption in Roman Sub-Phase 2 in the early to mid/ late 2nd century AD (Table 124), which is reflected by the abundance of the central Gaulish samian that was predominantly imported in the 2nd century AD, with the maker's stamps and moulded decoration suggesting a bias to the mid/ late 2nd century AD. East Gaulish samian ware, generally exhibiting similar vessel types to its Central Gaulish counterparts was predominantly imported between the late 2nd to mid 3rd centuries AD but low quantities, notably CHF SA and a mould decorated sherd from a bowl produced at Rheinzabern or Heiligenberg indicate east Gaulish samian was arriving throughout the latter half of the 2nd century AD in Roman Sub-Phases 2-3. However, east Gaulish fabrics were never consumed in large quantities, and after Roman Sub-Phase 5 it is likely that all samian ware is re-deposited or residual. The East Gaulish samian is notable for containing an anomaly to the established typology of samian form types, possibly a tazza or cup.

Samian fabric	Period II: Roman Stratigraphic Sub-phase							Total
	1	2	3	4	5	6	7	
South Gaul								
LGF SA	-	1/3	2/10	-	-	-	-	3/13
MON SA	-	1/21	-	1/6	-	-	-	2/27
Central Gaul								
LMV SA	-	2/33	-	3/22	-	2/43	-	7/98
LEZ SA1	-	4/60	-	4/37	-	-	-	8/97
LEZ SA2	4/19	35/349	17/489	12/159	12/140	15/100	3/106	101/1348
East Gaul								
CHF SA	-	3/73	1/12	-	-	2/7	-	6/92
TRI SA	-	11/221	2/12	3/22	3/92	2/8	1/6	22/361
RHZ SA	-	5/95	4/63	6/94	-	4/50	-	19/302
Total	4/19	62/855	26/586	62/326	15/232	25/208	4/112	168/2338

Table 124: Quantification of samian ware fabrics by sherd count/weight (g) in Period II

The south Gaulish samian ware (LGF SA and MON SA) is limited to four cups, all Dr.27 types (Table 125) defined by the double-curved wall of the form type, not by the presence of any rim sherds. Based on the flatter profile of the limited body sherds, the cups are probably of Trajanic (early 2nd century AD) origin contemporary with Roman Sub-Phase 2, and possibly imported, with the early samian from central Gaul. They included cups contained in Roman Sub-Phase 2 Ditch F3721 (Seg.A) and Pit F3676, with further residual examples in Roman Sub-Phase 3 Ditch F1530 (Seg.B) and Roman Sub-Phase 4 Ditch F1424 (Seg.D). It has previously been observed that LGF SA vessels continue in use in the first half of the 2nd century AD in Britain (Willis 2005: 5.8.2), and that the bulk of MON SA vessels in Britain are 2nd century imports, though not necessarily later than c. AD 150, with the most common plain ware form type the Dr.27 cup (Willis 2005: 6.6.2 and 6.6.4).

The rarer fabrics from central Gaul, LMV SA and LEZ SA1 were probably imported in the early 2nd century AD (c.AD100-120) before the main export period of LEZ SA2 (after c. AD 120). The form types in LMV SA and LEZ SA1 are limited to a Dr.18 platter in Roman Sub-Phase 4 Gully F1869 (Seg.B), Dr.18/31 and Dr.18/31R shallow dishes in Roman Sub-Phase 2 Ditch F2397 (Seg.A), Layer L3609 (Seg.D) and Roman Sub-Phase 4 Ditch F1424 (Seg.J) (Table 125), which may have complemented the cups from south Gaul, and possibly also those that dominate the LEZ SA2.

Samian fabric	Samian form	Period II: Roman Stratigraphic Sub-phase							Total
		1	2	3	4	5	6	7	
LGF SA	Dr.27		1/-	1/-					2/-
MON SA	Dr.27		1/-		1/-				2/-
LMV SA	Dr.18				1/0.10				1/0.10
	Dr.18/31		2/0.12		1/0.05				3/0.17
LEZ SA1	Dr.18/31R				1/-				1/-
LEZ SA2	Dr.18/31			1/0.05	1/0.10				2/0.15
	Dr.18/31 or 31						1/0.05		1/0.05
	Dr.18/31R or 31R				1/-				1/-
	Dr.31		2/0.28	1/0.07		2/0.15			5/0.50
	Dr.31R			1/0.15					1/0.15
	Dr.33	1/0.10	8/0.55	3/0.17		3/0.40	5/0.55		20/1.77
	Dr.36		1/0.05						1/0.05
	Dr.37			1/0.05	1/-			1/-	3/0.05
CHF SA	Dr.18/31R or 31R			1/-					1/-
	Dr.31		1/0.05						1/0.05
	Dr.33		1/-						1/-
	Dr.40						1/0.20		1/0.20
TRI SA	Dr.18/31		1/0.30						1/0.30
	Dr.18/31R or 31R					1/-			1/-
	Dr.31		1/0.15	1/0.07	1/0.05				3/0.27
	Dr.32					1/0.10			1/0.10
	Dr.33						1/-		1/-
	OandP LV13		1/0.05		1/0.05				2/0.10
RHZ SA	Dr.18/31R or 31R			1/-					1/-
	Dr.31				1/0.10				1/0.10
	Dr.32			1/0.03					1/0.03
	Dr.33		1/0.05	1/-			2/0.20		4/0.25
	Dr.37		1/0.05				1/-		2/0.05
	?Tazza/Cup		1/0.25						1/0.25
Total		1/0.10	23/1.90	13/0.59	10/0.45	7/0.65	11/1.00	1/-	66/4.69

Table 125: Quantification of samian ware form types in Period II, by minimum number of vessels/R.EVE

The principal 2nd century AD fabric from Lezoux, central Gaul (LEZ SA2) accounts for 60.1% of the samian ware by sherd count (57.7% by weight). The form types in LEZ SA2 contrast strongly with those from south Gaul and in other fabrics from

central Gaul, and are dominated by plain ware Dr.33 conical cups, with Dr.18/31 and Dr.31/31R dishes also a significant presence (Table 125). The LEZ SA2 Dr.33 cups were chiefly in circulation at Beck Row in Roman Sub-Phase 2, from the early to mid/late 2nd century AD, with sparse examples occurring earlier in Roman Sub-Phase 1 and later in Roman Sub-Phase 3, which is typical for the form type. This chronology is supported by two maker's stamps on LEZ SA2 Dr.33 cups, comprising Die 1a of Quintus iv (Fig.181.5) dated to c. AD 140-170 in Roman Sub-Phase 2 Layer L3651, and Die 1g of Maternus iv dated to c. AD160-190 in Roman Sub-Phase 2 Layer L3609. The LEZ SA2 Dr.31 dishes that first appear in Roman Sub-Phase 2, with both examples in Layer L3609, are also significant as the form type did not emerge until the mid 2nd century AD. An example of a LEZ SA2 Dr.31R dish in Roman Sub-Phase 3 (late 2nd/ early 3rd century AD) Ditch F3430 (Seg.A) is stamped with die 2a of Cambus i (Fig.181.6), dated to c. AD 150-180, and was deposited near complete though broken illustrating the continued consumption of samian from central Gaul in the late 2nd century AD. A further LEZ SA2 Dr.31 dish, stamped with Die 4a of Paullus v (Fig.181.7) dated to c. AD 165-200, was contained as probably re-deposited material in Roman Sub-Phase 5 Ditch F1429.

The decorated ware in LEZ SA2 is limited to relatively small fragments of Dr.37 bowls, including examples in Roman Sub-Phase 3 Ditch F3487 (Seg.C) and Roman Sub-Phase 4 Gully F3154 (Seg.C), of which only the latter exhibits any extant moulded decoration. The decorated body sherd (Fig.181.8) contained in Gully F3154 (L3155 Seg.C) bears an ovolo, beaded border and dog (Oswald 1936: figure type 1985) that indicate this bowl was probably the work of Paternus (Stanfield and Simpson 1958, 194-8), dated to c. AD 145-90, although similar elements were also used by Laxtucissa in the workshop of Paternus.

The east Gaulish samian is primarily comprised of plain ware Dr.33 conical cups and Dr.31 dishes that represent a continuation of the consumption pattern observed for the central Gaulish material with the addition of occasional O&P LV13 cups and Dr.32 shallow dishes (Table 125). The distribution of these form types extends in moderate quantities across Roman Sub-Phases 2 to 4 and in low quantities to Roman Sub-Phase 5, up to the end of the main export period in the mid 3rd century AD. In this assemblage a higher number of Dr.31 dishes appear to be in TRI SA, while RHZ SA is favoured for Dr.33 cups, and CHF SA vessels remain rare.

The most intriguing plain ware vessel from east Gaul was contained in Roman Sub-Phase 2 Layer L3609 (Seg.A) and comprises a small cup or tazza with an upturned rim with barbotine decoration and a slightly bulbous body with a mid-body groove (Fig. 181.9). The profile of the rim is similar to that on the undecorated Dr.46 cups, and the body similar to that of small Dr.81 bowl, but the vessel does not conform to the established type series of samian ware forms. The fabric is East Gaulish, probably from Rheinzabern (RHZ SA), and vessels produced in Terra Nigra and fine grey ware fabrics in the Rheinland suggest this area was the origin of the vessel. The Rheinland vessels include a tazza with a comparable rim, but incised rather than barbotine decoration on the exterior of the rim (Gose 1984: plate 42, vessel 446) as well as a cup/ small bowl with a comparable body (*ibid*: plate 23, vessel 314). The spacing and application of the barbotine decoration on the exterior of the rim is not perfectly executed suggesting this could have been a trial or apprentice piece, or a specific commission, but if so it is a long way removed from its production centre and

would probably have travelled with an individual rather than as a commercial product. Similar barbotine decoration does occur on the exterior of the rim of east Gaulish samian ware dishes found at Niederbieber in the Rheinland (Gose 1984: plate 6, vessel 99; Oswald and Price 1920: plate LXV, vessel 6). If the vessel was carried by an individual, it may suggest the vessel had a specific or ritual purpose, which would support the interpretation of the vessel as a tazza or incense/ oil burner. The vessel exhibits no traces of wear or burning but the rim would allow a lid or frame holding a wick to be mounted on the vessel and draw up fuel. The presence of unusual lighting vessels, including lamps and candlesticks on sites lower down the settlement hierarchy has been highlighted as consistent with the status of a rare object combined with the cultural awareness and employment of a vessel (Willis 2005: 8.5.4), which supports the theory that the uniqueness of this vessel may be connected to the specific purpose of the vessel either to an individual or on a wider cultural level within the settlement at Beck Row. The other pottery in Layer L3609 allows a relatively accurate date for the probable tazza to be determined. The pottery group includes seven other samian ware vessels, comprising an LMV SA Dr.18/31 dish, three LEZ SA2 Dr.33 cups (including a base stamped by Maternus iv), two LEZ SA2 Dr.31 dishes and a TRI SA Dr.18/31 dish that combined with the Romano-British vessel, which include a COL CC1 roughcast beaker suggest a date in the latter half of the 2nd century AD, probably after c. AD 160.

The east Gaulish samian ware also includes a small component of decorated ware in the form of two RHZ SA Dr.37 bowls that appear to date to the Antonine period (mid to late 2nd century AD). These comprise a rim sherd contained in Roman Sub-Phase 2 Layer L3651, and a mould-decorated rim sherd contained as probably re-deposited material in Roman Sub-Phase 6 Gully F4516 (Seg.A). The body sherd (Fig.181.10) exhibits the figure of a griffin (Oswald 1936: figure type 873; Ricken and Fischer 1963: T179), and is in a fabric whose colour is typical of Rheinzabern products, but whose inclusions are more like that of samian ware from Heiligenberg. These characteristics suggest the vessel was the work of Ianus ii who appears to have worked at both Heiligenberg and Rheinzabern between c. AD 160-190, but may have worked at Heiligenberg from as early as c. AD 130. However, although Ianus ii appears to be the most likely manufacturer, the griffin figure was also used by other mid 2nd to early 3rd century AD potters at Rheinzabern including Abbo, Cobnertus iv and Lupus iv.

The samian ware accounts for 2.2% of the Roman pottery by sherd count, (1.6% by weight and 6.1% by R.EVE), which is broadly typical of rural sites, including villas, across Britain (Willis 2005: 7.2.7). The samian ware is also consistent with that recorded from the adjacent excavation of a 'maltings' at Beck Row (Tester 2004, 35), where a total of 25 sherds (160g, R.EVE: 0.42) of samian ware were recorded, accounting for 1.7% of the assemblage by sherd count (0.7% by weight and 2% by R.EVE). The samian ware from the Maltings site was similarly dominated by Lezoux fabrics with occasional other fabrics from south, central and east Gaul, and forms primarily comprised of Dr.18/31 dishes and Dr.33 cups. An intriguing deviation in the pattern of samian ware form types at Beck Row from that typical of rural sites portrayed by Willis (2005: 8.2.6) is a higher proportion of cups, principally Dr.33: 48% in this assemblage, nearly double the 25% typical of this site type. In contrast the proportion of dishes, principally in the Dr18/31 to Dr.31 range, is as would be expected, at 50% in this assemblage compared to a typical proportion of 48%; while

the proportion of decorated bowls, entirely Dr.37 type in this assemblage is significantly lower at 7.5% than the 21% that might be expected. Such a high proportion of cups is more typical of samian groups recorded at major civil centres (Willis 2005: 8.2.4), however a similarly high proportion of cups has been noted amongst central Gaulish samian ware from sites in Essex (Willis 2005: 8.3, Table 54). There is no certain explanation for this trend except to suggest a cultural preference for individual drinking vessels that may be related to the function of the site or the identity of the occupants. The lack of decorative bowls combined with the high consumption of samian ware cups may also represent a distinctive pattern of consumption connected to the site function, possibly relating to a focus on drinking but not domestic display on the site; an interpretation that may be extended to relate to the postulated presence of a maltings adjacent to the site.

The Fine Wares

Period II (Roman Sub-Phases 1-7) contained a total of 432 sherds (7886g) of fine ware (Table 126), which accounts for 6.0% of the Period II pottery by sherd count (5.7% by weight). The chronologically earliest fine wares date to the early-mid 2nd century AD in Roman Sub-Phases 1 and 2 and include those of relatively local or un-sourced manufacture (WES FR, OXF1, GRF1 and GRF2) alongside colour-coated fabrics from the East Anglian region (LNV CC, PAK CC, COL CC1). From Roman Sub-Phase 3, the late 2nd century AD, the dominant fine ware is LNV CC, which is supplemented by low quantities of the other regional colour-coated fine wares (PAK CC and COL CC1). From the 3rd century AD, regional fine wares of HAD OX and OXF RS are present but these fabrics do not become common until into Roman Sub-Phase 7 in the 4th century AD. The occurrence of the remaining fine wares (LON MD, CNG CC2, CNG BS, KOL CC) is limited to isolated sherds.

Fabric	Sherd Count	Weight (g)	R.EVE
CNG CC2	1	3	0.07
CNG BS	1	6	0.00
KOL CC	1	9	0.00
LON MD	1	79	0.00
COL CC1	17	153	0.17
LNV CC	206	4580	4.61
PAK CC	11	113	0.07
OXF RS	27	777	1.49
HAD OX	23	341	0.75
OXF1	53	490	0.55
WES FR	54	799	2.40
GRF1	7	76	0.10
GRF2	31	470	1.30
Total	433	7896	11.51

Table 126: Quantification of fine ware in Period II

West Stow fine reduced ware, and un-sourced fine grey and oxidised wares

The chronologically earliest fine wares in the assemblage occur in form types, predominantly beakers and bowls that could hypothetically have been produced in the late 1st to 2nd century AD; however the associated samian ware and coarse wares suggest they did not arrive on this site until at least the beginning of the 2nd century AD. These fine wares include fabrics produced at local centres including West Stow (WES FR), while OXF1, GRF1 and GRF2 may represent the products of multiple sources, the bulk of which are probably relatively local. These four fabrics comprise common fine wares in Roman Sub-Phases 1-2 with sherds in later phases,

notably Roman Sub-Phases 3-6 occurring in form types typical of the early to mid 2nd century AD and therefore probably represent pottery re-deposited from Roman Sub-Phase 1 and 2 features.

The stratigraphically earliest WES FR vessel comprises the drooping flange of a cup imitating samian form Dr.35 (West 1990, 80: type 4.5) contained in Roman Sub-Phase 1 Pit F3205, and is an intriguing occurrence as this type of cup is absent in the contemporary samian ware. Other drinking vessels in WES FR include a bag-shaped beaker with panels of barbotine dot decoration (Fig.181.11; West 1990, 78-9: type 2.7, fig.58.219-220) that appears to have been deposited complete in Roman Sub-Phase 2 Ditch F1449 (L1503), while a fragment of a carinated beaker (West 1990, 85: type 19) was also contained in Roman Sub-Phase 4 Ditch F4536. Possibly complementing the beakers and cups in Roman Sub-Phases 1-2 were WES FR narrow neck jars with highly burnished exterior (West 1990, 78: type 3, fig.58.222), that included examples in Roman Sub-Phase 2 Layer L2156 (Fig.181.12) and Ditch F2913 (Seg.B). Highly burnished WES FR body sherds were also recorded at the adjacent Roman maltings (Tester 2004, 35). Open vessels in WES FR are represented by body sherds from 'London ware' bowls that appear to be imitating samian form Dr.30 (West 1990, 82: type 6A1), which include an example with a cordon filled with ring-and-dot stamps in Roman Sub-Phase 2 Ditch F4598 (Seg.B), while other sherds exhibit interspersed narrow comb strokes and inscribed compass decoration. These bowls or other unidentified open dishes/ platters are probably also the source of two illiterate stamps on WES FR bases present as residual material in the assemblage. The former stamp formed of V, I and dot symbols within a border (Fig.181.13) matches examples known at the West Stow kiln site (Rigby 1990, 86-88: Group Ca, fig. 87.9-11) while the latter, contained in L3182 (Seg.H) is unreadable as the base has been perforated and re-used as a spindle whorl (Fig.181.14).

The OXF1 includes three beakers and a single flagon probably manufactured at West Stow, although the kilns at Cherry Hinton are also a potential source. The beakers, including an example in Roman Sub-Phase 3 Gully F2322 (Seg.C) have short everted/ cornice rims with white-painted decoration (Fig.181.15). The decorative scheme incorporating hollow diamonds and dots is closely comparable to that found on a bowl and body sherds at West Stow (West 1990, 84: fig. 60.286, 293 and 294). White-painted decoration is also a common element on mid to late 1st century AD beakers at Cherry Hinton (Evans 1990, 25: fig. 4.1-4) but the chronology of Roman Sub-Phase 3 favours mid 2nd century AD production at West Stow, which is supported by a re-deposited OXF1 cupped, ring-necked flagon in Gully F4516 (Seg.C) that is identical to types found in the West Stow kilns (West 1990, 77: type 1.1). Beakers and miscellaneous body sherds on fine white (including possible Cherry Hinton fabrics), oxidised and grey wares were also recorded in low quantities at the Roman maltings adjacent to the current site (Tester 2004, 35).

A West Stow source may also account for the bulk of fabrics GRF1 and GRF2, although other East Anglian or more distant sources may also be represented. A GRF1 bag-shaped beaker with panels of barbotine dot decoration in Roman Sub-Phase 2 Gully F1395 (Seg.C) is a form type produced at West Stow (West 1990, 78-9: type 202), as well as at regional producers such as Wherstead, Pakenham and Colchester. A similar GRF2 globular beaker (Fig.181.16) is also of interest as cross-

joining fragments from this vessel were contained in Roman Sub-Phase 1 Ditch F1197 (Seg.A) and Roman Sub-Phase 5 Ditch F1131 (Seg.E), highlighting the process of re-deposition of pottery on the site. A GRF2 bowl contained in Roman Sub-Phase 1 Pit F3205 highlights the input of other East Anglian sources. The form type imitates samian bowl Dr.30, with decoration limited to vertical and oblique incised lines and rouletting (Fig.181.17). This style of decoration is typical of the 'East Anglian Waveney Valley' style of stamped decoration recorded on vessels at Scole (Rodwell 1978, 255: fig. 7.13.106; Rogerson 1977, 178: fig. 75.41), whose kilns may have produced this vessel. An anomaly in the pattern of East Anglian produced vessels in the assemblage comprises a small fragment of a GRF1 'switchback' rim (Fig.181.18) contained in un-phased Posthole F4940. This type and profile of rim is typical of the aperture of inkwells, notably produced in samian ware (form type Ritterling 13) in East Gaul, particularly at Rheinzabern (Gose 1984: plate 10.155) but not attested at Romano-British kiln sites.

Lower Nene Valley colour-coated ware

Lower Nene Valley colour-coated ware (LNV CC) accounts for 47.5% of the non-samian fine ware in the assemblage by sherd count (58.0% by weight). The Lower Nene Valley pottery industry was based around Water Newton (*Durobrivae*) relatively near to the site, c. 58km to the west of Beck Row, and one of the main branches of this very large industry was LNV CC (Perrin 1999, 87), which achieved a significant regional and national distribution. LNV CC was present as sparse beaker sherds in the assemblage from the adjacent Maltings (Tester 2004, 35), but appears to have a much wider presence in this assemblage. LNV CC has a low presence in Roman Sub-Phase 2, accounting for c. 1% by sherd count of the phase group, reflecting the import of LNV CC in the mid-late 2nd century (a single beaker in Roman Sub-Phase 1 is intrusive). The scale of the production and export of LNV CC expands in the late 2nd century AD, which is reflected in Roman Sub-Phases 3-6. In Roman Sub-Phases 4-7 LNV CC consistently accounts for c. 3-4% by sherd count of the phase groups, rising to c. 14% in Roman Sub-Phase 7. The high proportion in Roman Sub-Phase 7 probably reflects changes in availability and consumption of pottery in the latter half of the 4th century when other regional fine wares, including those from Oxfordshire (OXF RS) and Hadham (HAD OX) also had an increased distribution, but may also be biased by the relatively small size of that phase group.

The occurrence of LNV CC form types in the phase groups (Table 127) largely concurs with this distribution, with higher quantities of vessels in Roman Sub-Phases 3-6, although only limited vessels in Roman Sub-Phase 7. Beakers comprise the most common LNV CC form type by minimum number of vessels (Table 127), with the most common types comprising funnel neck types produced from the late 2nd/early 3rd to late 3rd centuries AD, which account for at least 15 of the LNV CC beakers. These funnel neck beakers typically have plain rims with folded bodies (Howe *et al.* 1981: fig.4.43) including an example in Roman Sub-Phase 3 Gully F2382 (Seg.A) (Fig.182.19), although body sherds indicate some were decorated with either bands of rouletting, barbotine scrolls or scale decoration (i.e. Perrin 1999, 95: types 165-7). These types of beaker predominantly occur in Roman Sub-Phase 3 and 6 features, however a beaker with a funnel neck and bead rim (Perrin 1999, 95: type 173) contained as intrusive material in Roman Sub-Phase 1 Ditch F4440 (Seg.A) (Fig.182.20) indicates that typologically 4th century AD types are also

present. A further vessel of note, technically a flagon contained in Roman Sub-Phase 3 Pit F3737 (Fig.182.21), appears to be a funnel neck beaker upon which a handle was attached at the time of manufacture. A comparable mid-late 4th century AD vessel has been recorded in LNV CC (Howe *et al.* 1981: fig. 6.63) but the chronology of this type of vessel remains unclear and could potentially have been produced from the late 2nd century AD. The remaining beaker form types are all rare and occur as small rim and body sherds in Roman Sub-Phase 3-5 (late 2nd-early 4th century AD) features. They are probably contemporary with the funnel neck types, but include types potentially produced from the mid 2nd-early 3rd century AD, including in Roman Sub-Phase 4 Ditch F1667 (Seg.G) a beaker with a short curved rim (Perrin 1999, 95: types 158-64), and in Roman Sub-Phase 5 Ditch F3435 (Seg.E) a body sherd from a 'hunt cup' (Perrin 1999, 91: types 131-2) that exhibits the fore legs of an unidentified animal beneath a beaded border.

LNV CC form type	Period II: Roman Stratigraphic Sub-phase							Total
	1	2	3	4	5	6	7	
Beaker	1/0.05	2/-	7/0.55	3/0.05	6/0.10	3/0.20		22/0.95
Dish		1/0.12	1/0.10	1/0.10	2/0.04	3/0.55		8/0.91
Bowl					1/0.05	1/0.05		2/0.10
Jar		1/-	5/0.39	1/0.10	2/0.25	8/1.17	4/0.47	21/2.38
Flagon			1/-			1/0.02		2/0.02
Total	1/0.05	4/0.12	14/1.04	5/0.25	11/0.44	16/1.99	4/0.47	36/4.36

Table 127: Quantification of LNV CC form types in Period II, by minimum number of vessels/ R.EVE

Jars dominate the LNV CC fabric group by R.EVE and are nearly as common as beakers by minimum number of vessels (Table 127). The main period of production for LNV CC jars was in the late 3rd to 4th century AD but they were produced from at least the late 2nd century (Perrin 1999, 106), a pattern that is borne out by sparse numbers of jars in Roman Sub-Phases 2-5 followed by a flourish in Roman Sub-Phases 6-7. LNV CC jars typically exhibit a very limited degree of variation in form and only two types were present in the assemblage. The former comprise jars with a bifid rim (Perrin 1999, 107: types 273-4), which are represented by only single examples in Roman Sub-Phase 3 Ditch F3430 (Seg.B) and Roman Sub-Phase 6 Ditch F1919 (Seg.B) (Fig.182.22). The latter type comprising the remaining 19 LNV CC jars, have a wide-mouth, short neck and slightly angular bead rim (Perrin 1999, 107: types 279, 280 and 282), with rim diameters ranging from 16-28cm (average 19.7cm). This jar type includes vessels in Roman Sub-Phase 3 Ditch F1923 (Seg.A) (Fig.182.23), Roman Sub-Phase 6 Ditch F1919 (Seg.B) (Fig.182.24), Roman Sub-Phase 6 Gully F4375 (Seg.D) (Fig. 182.25) and Roman Sub-Phase 7 Layer L3355 (Seg.H) (Fig.182.26).

The relatively high numbers of LNV CC beakers and jars is in contrast to the low number of dishes, near absence of bowls and flagons (Table 127), and complete absence of Castor boxes and lids, which as with the preference for samian ware cups may be connected to the demand for particular vessels related to the function of the site. The bulk of the LNV CC dishes are predominantly bead and flange rim types (Perrin 1999, 105: types 255-9), but these account for just five vessels. This type of dish was produced from the later 3rd century AD and occur in Roman Sub-Phase 4-6 features, including examples in Roman Sub-Phase 5 Ditch F4442 (Seg.A) (Fig.182.27) and Roman Sub-Phase 6 Ditch F1919 (Seg.B) (Fig.182.28). The remaining scarce dishes include three plain rim types (Perrin 1999, 103: types 233-5), including an example in Roman Sub-Phase 3 Gully F4514 (Seg.A) (Fig.182.29), as well as a single dish with a rounded bead rim (Perrin 1999, 101: type 221). Both

plain and bead rim dishes were produced from the late 2nd century AD, and correspondingly are present in Roman Sub-Phase 3-6 features. The rare flagon and bowl form types in LNV CC only appear to occur in Roman Sub-Phases 5-6, in or after the late 3rd century AD, and comprise a flagon with a flaring rim and upturned top (Symonds and Wade 1999, 286: fig. 5.42.157) contained in Roman Sub-Phase 6 Gully F4056 (Seg.D) (Fig.182.30), and small fragments of plain bowls imitating samian ware forms Dr.31 and Dr.37.

Colchester and Pakenham colour-coated wares

The remaining colour-coated fabrics produced in East Anglia, at Colchester (COL CC1) c. 58km to the south, and Pakenham (PAK CC) c. 25km to the east are present as minority fabrics in Roman Sub-Phases 2-6, accounting for c. 0.2-0.4% of each of the phase groups by sherd count. Both fabrics are entirely represented by beakers, with the form types suggesting that the COL CC1 was primarily imported in the 2nd to early 3rd centuries AD (Roman Sub-Phases 2-4), and PAK CC primarily in the late 2nd to 3rd centuries AD (Roman Sub-Phases 3-5). The COL CC1 beakers are represented by a single form type, a bag-shaped beaker with a cornice rim and roughcast decoration (Symonds and Wade 1999: type Cam.391A/B) that account for a minimum of seven beakers represented by small body and occasionally rim sherds. Comparable COL CC1 beakers were also recorded at the adjacent Maltings site (Tester 2004, 35). The four PAK CC beakers in the assemblage all have plain funnel rims and indented bodies, and include variants with either bands of rouletted decoration or barbotine scale decoration (Arthur and Plouviez 2004: types 9A&B) that are identical in form to the prevalent form of LNV CC beaker imported to the site between the late 2nd and late 3rd centuries AD.

Oxfordshire red-slipped ware and Hadham oxidised ware

Further Romano-British fine wares with a regional distribution were imported from Hadham (HAD OX) c. 83km to the south-west, and Oxfordshire (OXF RS) c. 140km to the south-west. These regional fine wares were imported in very low quantities in the 3rd to early/ mid 4th centuries AD (Roman Sub-Phases 3-6), with form types suggesting they did not begin to arrive until the mid-3rd century AD (Roman Sub-Phase 4/ 5). OXF RS and HAD OX fine wares rise to account for c. 5% and c. 3% by sherd count respectively of the pottery in Roman Sub-Phase 7, probably in the mid 4th century AD, when proportions of LNV CC also rise significantly to c. 14%. However in real terms the number of sherds and weight of these fabrics in Roman Sub-Phases 6 and 7 is similar, and slightly higher than Roman Sub-Phase 4-5, suggesting the relatively low quantity of pottery that could be reliably assigned to the Roman Sub-Phase 7 group may bias this statistic. This chronological distribution is supported by the absence of OXF RS or HAD OX from the groups recorded at the adjacent Maltings site, where occupation and maintenance of enclosures appears to have ceased by the early/ mid-3rd century AD (Tester 2004, 42).

The forms of the OXF RS and HAD OX contrast with those in LNV CC, with OXF RS predominantly comprising bowls and HAD OX flagons, suggesting vessels from these sources were deliberately selected for their function, to fulfil a purpose not catered for or not renowned in products available from more local sources. The OXF RS vessels include a single dish and 13 bowls. The dish, an imitation of samian

were form Dr.36 (Young 2000: type C49), was contained in Roman Sub-Phase 4 Ditch F1370 (Seg.C), and is a form type manufactured from c. AD 240 suggesting it was imported in Roman Sub-Phase 4/ 5. The OXF RS bowls fall into three types: a flanged bowl imitating samian ware form 38 (Young 2000: type C51/52), necked bowls with rouletted decoration (Young 2000: type C75), and necked bowls with rouletted and stamped decoration (Young 2000: type C78). The C51 bowls are plain and include six vessels in Roman Sub-Phases 4-7 (including vessels in 'disturbed' Roman Sub-Phase 3 deposits), with a further bowl with white-painted scroll and dot decoration on the flange (C52) in Roman Sub-Phase 7. A C51 bowl contained in Roman Sub-Phase 5 Pit F2695 is of particular interest as the internal slip beneath the level of the flange has been worn away (Fig.182.31) suggesting the vessel was used as a non-gritted mortarium. The C75 bowls, accounting for five bowls, were produced from the early 4th century AD, and therefore are as expected present in Roman Sub-Phase 5/ 6 including an example in Roman Sub-Phase 5 Ditch F2122 (Fig.182.32), although two examples assigned to Roman Sub-Phase 3 probably belong to inter-cutting later features. Single examples of C78 bowls, produced from the mid 4th century AD, were recorded in Roman Sub-Phases 6 and 7 respectively, including an example in Roman Sub-Phase 7 Layer L3355 (Fig.182.33). Vessels in HAD OX are limited to three flagons in Roman Sub-Phases 5-7 represented by small rim and neck sherds, all with a highly burnished exterior. They include a flagon with a bifid rim (Fig.182.34) contained in Roman Sub-Phase 6 Gully F1821 (Seg.A), while the other flagons include variants with a flaring hooked rim and a disc neck.

A London mica-dusted ware lamp

A single LON MD vessel (Fig.182.35), a lamp, was present in the assemblage contained in Roman Sub-Phase 4 Ditch F1929 (L1985 Seg.B). The lamp is a 'factory lamp' of a type (Loeschcke type X) that was produced in this fabric in kilns at Northgate House, London (Seeley *et al.* 2005, 124; Wardle 2005, 188: vessels S21 and S22). Key characteristics of this type of lamp are an open nozzle channel, two vestigial lugs, a circular filling hole in a plain discuss and a simple ring handle. It is also typical of lamps produced in the Northgate kilns that despite the mica-dusting, they are poorly moulded, as this example is. The spout and handle have been broken on this example, possibly leading to its discard, while traces of the mica-dusting are particularly evident on the discuss and around the lugs, indicating the iridescence the surfaces of the vessel once had. A comparable lamp has been recorded at Verulamium (Wilson 1972, 368: fig.142.1), while a very similar lamp (Loeschcke type IX) was recorded at Rougier Street, York (Perrin 1990, 329: vessel 1520). Production at Northgate House, London appears to have spanned c. AD 120-160, which suggest that the lamp may have has an extensive lifespan, possibly as a personal possession or traded curio, potentially spanning Roman Sub-Phases 2-4. The adoption of oil lamps in Britain is less common than in other Roman provinces, and lamps are typically found on military and major urban sites with the implication they formed part of a cultural practice rather than a simple expedient light source (Eckardt 2011, 191-3).

Continental fine ware

Non-samian ware fine wares imported from the continent are exceptionally rare in the assemblage, and are limited to a single sherd of KOL CC in Roman Sub-Phase

5, and single sherds of CNG CC2 and CNG BS in Roman Sub-Phase 6. All three fabrics appear to have comprised beakers or cups that would have been imported in the 3rd century AD, probably by the mid 3rd century AD, and therefore in Roman Sub-Phase 4, possibly remaining in circulation into Roman Sub-Phase 5/ 6. The CNG CC2, contained in Roman Sub-Phase 6 Ditch F1727 (Seg.B) comprised a 'low centred' cup with an in-turning rim (Fig.182.36) that was produced in the 3rd century AD (Symonds 1992, 59: group 57 and fig. 44.761), while the KOL CC and CNG BS sherds were too small to allow a specific type of beaker to be identified.

White and white-slipped wares

Period II (Roman Sub-Phases 1-7) contained a total of 313 sherds (6076g) of white and white-slipped ware (Table 128), which accounts for 4.3% of the Period II pottery by sherd count (4.4% by weight). The bulk of the white and white-slipped wares are accounted for by fabrics from West Stow (WES CR1 and WES CR2), fine and sandy variants of a cream ware that may represent inconsistencies in the production of a single intended fabric, but could feasibly include vessels from kilns at Colchester that could not be differentiated. In Roman Sub-Phases 1-3 the two West Stow fabrics (WES CR1 and WES CR2) account for a total of c. 4-5% of their respective phase groups by sherd count. In absolute quantities this is reflected by a significant peak in Roman Sub-Phase 2 (early/ mid-2nd century AD), followed by decline in Roman Sub-Phase 3 and near absence in Roman Sub-Phase 4 as production ceased and the fabrics remained in circulation; with sherds in Roman Sub-Phase 4 and subsequent phases representing re-deposited material. The only other white ware present in the assemblage in more than ephemeral quantities was manufactured in the Lower Nene Valley (LNV WH). LNV WH sherds are principally distributed in features assigned to Roman Sub-Phases 2-6, with a clear flourish in Roman Sub-Phase 6 (4th century AD) when the fabric accounts for c. 0.6% of the phase group by sherd count. The remaining white or white-slipped wares with a defined provenance probably represent occasional regional imports: from Verulamium (VER WH) in the 2nd century AD (up to Roman Sub-Phase 4), and from Oxfordshire (OXF WS) and Overwey, Surrey probably in Roman Sub-Phase 7, with earlier sherds possibly intrusive. As a group, the un-sourced white-slipped wares (UNS WS1-3) occur consistently through Roman Sub-Phases 2-7, and probably represent a myriad of varying production centres, potentially including Verulamium, Godmanchester and possibly local kilns such as Pakenham.

Fabric	Sherd Count	Weight (g)	R.EVE
WES CR1	128	2812	4.00
WES CR2	114	1696	0.40
LNV WH	21	735	0.65
VER WH	12	285	0.10
OVW WH	1	17	0.05
OXF WS	3	63	0.06
UNS WS1	11	257	1.10
UNS WS2	2	36	0.15
UNS WS3	10	175	0.17
<i>Total</i>	<i>313</i>	<i>6076</i>	<i>6.68</i>

Table 128: Quantification of white and white-slipped ware in Period II

West Stow cream wares

The WES CR1 was entirely represented by a minimum of 11 ring-necked flagons (total R.EVE: 4.00), while the WES CR2 was represented by a further ring-necked flagon and single jar (total R.EVE: 0.40). The types of ring-necked flagon exhibited slight variations that encompass the types produced at West Stow in the early to mid 2nd century AD. Examples in Roman Sub-Phase 1 included a small flagon (West 1990: 77: type 1.10) in Ditch F1145 (Seg.A) (Fig.182.37), a cupped rim flagon (*ibid*: type 1.1) and large flagon (*ibid*: type 1.8) both in Ditch F2906 (Seg.A) (Figs.182.38 and 182.39). Examples in Roman Sub-Phase 2 include a very small flagon (*ibid*: type 1.6) in Pit F3676 (Fig.182.40) and a flagon with a pronounced bead (*ibid*: type 1.2) in Gully F4090 (Seg.C) (Fig.182.41). Low quantities of white wares of probably West Stow origin, including a possible ring-necked flagon, were previously recorded at the adjacent Maltings (Tester 2004, 38). The single WES CR2 jar, contained in Roman Sub-Phase 1 Ditch F1145 (Seg.D), is a lid-seated type (Fig.182.42) not paralleled at the kiln site, but is similar to types produced in white ware at Colchester in the 2nd century AD (Symonds and Wade 1999: type Cam.307) suggesting an alternative source for the vessel.

Lower Nene Valley white ware

The LNV WH includes a limited range of four diagnostic vessels comprising a single jar and three bowls. The jar, contained in Roman Sub-Phase 2 Layer L2321 (Seg.C) has a bifid or pulley rim (Fig.183.43) and is a type produced from the mid 2nd century AD in the Lower Nene Valley (Perrin 1999, 82: type 44) including at Brixworth (Woods 1972, 65: vessel 99) suggesting this may have been an isolated import in Roman Sub-Phase 2 relatively early in the production range of LNV WH. The LNV WH bowls all have red-painted decoration, and comprise form types generally produced from the late 2nd/ early 3rd century AD, but most common after the late 3rd century AD. Therefore the semi-hemispherical bowl with red-painted 'blobs' on the flange (Perrin 1999, 113: types 348-50) in Roman Sub-Phase 6 Gully F3960 (Seg.B) reflects the established chronology of the vessel type. However, the two bowls imitating samian form type Dr.36 (Perrin 1999, 102: type 244) contained in features assigned to Roman Sub-Phase 2 (early to mid/ late 2nd century AD) appear incongruous as they are associated with 4th century AD kiln deposits, but as the cream ware element of the Lower Nene Valley pottery industry is little understood (Perrin 1999, 108) these vessels may in fact form an integral part of the Roman Sub-Phase 2 pottery group. The LNV WH bowls imitating samian form type Dr.36 included an example in Roman Sub-Phase 2 Layer L2321 (Seg.A) with red-painted dots on the rim, and an example in Roman Sub-Phase 2 Pit F2105 with a red-painted radial pattern on the interior (Fig.183.44), which is closely comparable to vessels produced at Stibbington in the Lower Nene Valley (Howe *et al.* 1981: fig. 8.98).

Other white and white-slipped wares

The Verulamium region white ware (VER WH) vessels in the assemblage are limited to jars, including a short-necked jar with a bifid rim (Wilson 1984, 228: vessels 2246, 2251 and 2257) contained in Roman Sub-Phase 3 Ditch F3453 (Seg.C) (Fig.183.45) that dates to the mid 2nd-mid 3rd centuries AD, with the base and lower body of a

second jar in Roman Sub-Phase 3 Ditch F4973 (Seg.A). Two VER WH vessels, including a jar were previously recorded in mid 2nd to mid 3rd century AD deposits at the adjacent Maltings site (Tester 2004, 41). Similar in form to the VER WH is the OVW WH jar with an everted bifid rim (Fig.183.46) contained as intrusive/ disturbed pottery in Roman Sub-Phase 4 Ditch F1735 (Seg.K), which would have been produced in the 4th century AD (Lyne and Jefferies 1979, 43: type 3C.6). In contrast to the VER WH which occurs in low quantities between Roman Sub-Phases 2-7, the OVW WH is limited to a single sherd that should be regarded as an outlier in the assemblage. The Oxfordshire white-slipped ware (OXF WS) also includes only a single diagnostic vessel, but is likely to have arrived alongside red-slipped fine ware (OXF RS) and red- or white-slipped mortaria (OXF RS (M) and OXF WS (M)) from the same source. The OXF WS vessel comprises a bowl imitating samian form type Dr.31 (Young 2000: type C45) in Roman Sub-Phase 7 Ditch F1925 (Seg.A), whose occurrence mirrors the increase in OXF RS in the mid 4th century AD.

The un-sourced white slipped wares have been grouped and split into UNSWS1-3 according to similarities and differences in fabric that may indicate a shared source but could mask the products of multiple production centres. On the basis of fabric analysis UNS WS1 appears to originate from Godmanchester although Verulamium, from where the Godmanchester potters may have migrated, is also a viable source and the form types of UNS WS1 are common in the repertoires of both centres. The UNS WS1 includes two vessels in Roman Sub-Phase 3: a bowl with a reeded rim (Fig.183.47) in Ditch F1423 (Seg.L) and a shallow plain 'dog' dish (Fig.183.48) in Gully F2322 (Seg.A). The bowl is comparable to types produced at Godmanchester (Evans 2003, 46: fig. 25.13) from the mid 2nd century AD, while the dish is a relatively ubiquitous form type. Also present as residual material in Roman Sub-Phase 6 Ditch F1919 (Seg.B) is an UNS WS1 ring-necked flagon with a slightly flaring bead rim (Fig.183.49) that is typical of types produced in the Verulamium region (Wilson 1984, 203-4: vessels 1931-2; Seeley *et al.* 2005, 111: P210), which may have arrived at Godmanchester with migrant potters, and is also very similar to the ring-necked flagons from West Stow (WES CR1/2) common in Roman Sub-Phases 1-3. A probable Verulamium source is also suspected for UNS WS2, whose diagnostic sherds are limited to a single jar with a bifid rim (Fig.183.50) in Roman Sub-Phase 3 Gully F2322 (Seg.A), identical to a type produced at Verulamium (Wilson 1984, 228: types 2251 and 2257) that also occurs in VER WH in this assemblage. In contrast, the source of UNS WS3 may be in Suffolk, or possibly Colchester with the fabric including, in Roman Sub-Phase 3 Pit F2676, a carinated bowl with a cupped rim (Fig.183.51) that is comparable to types produced at Colchester (Symonds and Wade 1999: type Cam.326/331).

Local and Regional coarse wares

Period II (Roman Sub-Phases 1-7) contained a total of 6055 sherds (108007g) of coarse ware (Table 129), which account for 83.2% of the Period II pottery by sherd count (78.1% by weight). The largest fabric group comprises GRS1, which represents utilitarian, sandy grey wares produced locally to Beck Row. Proportions of GRS1 peak in the Roman Sub-Phase 1 group accounting for c. 43% by sherd count, but typically account for between c. 24-30% of the subsequent phase groups (Roman Sub-Phases 2-7). Supplementing the GRS1 are a series of coarse wares that have a significant presence in the assemblage and appear to each have a focus

on particular types of vessel, possibly reflecting market demand for selected form types or the common circulation of certain form types as containers.

These significant coarse wares include further local products (BSW1 and BSW2), and the products of the major pottery production centres within the region: in the Wattisfield/ Waveney Valley region (WAT RE1 and WAT RE2), and in the Horningsea area (HOR OX and HOR RE). BSW1 and BSW2 consistently account for a total of c. 15-17% of the phase groups, with a clear bias towards dishes, although a diverse range of form types are present. WAT RE1 and WAT RE2 typically account for c. 19-25% of each phase group, peaking at c. 28% in Roman Sub-Phase 3 and appearing to drop off in Roman Sub-Phase 7. Vessels in WAT RE1 and WAT RE2 appear to favour table wares in the form of beakers, platters, dishes, bowls and bowl jars, although jars are particularly common in Roman Sub-Phase 2/ 3. Horningsea fabrics (HOR OX and HOR RE) consistently account for c. 10-13% of the phase groups, peaking at c. 17% in Roman Sub-Phase 2, before dropping off in Roman Sub-Phase 7, with a clear focus of form types towards storage jars, constricted neck jars and jars with everted rims and a single plain shoulder cordon.

Fabric	Sherd Count	Weight (g)	R.EVE
WAT RE1	1505	20336	11.44
WAT RE2	166	2943	3.10
HOR OX1	590	16613	3.10
HOR RE1	346	13846	5.79
BSW1	516	7084	3.29
BSW2	587	9487	2.48
GRS1	1937	29870	11.92
GRS2	140	2347	4.40
GRS3	42	341	0.37
ROB SH	196	4549	2.10
LVN GS	13	255	0.17
NAR RE	15	267	0.39
COL BB2	2	69	0.17
<i>Total</i>	<i>6055</i>	<i>108007</i>	<i>48.62</i>

Table 129: Quantification of coarse ware in Period II

The remaining coarse wares represent smaller scale production within the local area (GRS2 and GRS3) and imports from other production centres within East Anglia (LVN GS, ROB SH, NAR RE, COL BB2). Each of these coarse wares accounts for c. 1-3% of the phase groups they occur in, with GRS2 and GRS 3 predominantly occurring in Roman Sub-Phases 1-5 and the regionally imported coarse wares in Roman Sub-Phases 3-6, with the exception of ROB SH which rises to account for c. 4-6% in Roman Sub-Phases 6-7. Similar to the other coarse wares, each fabric appears to favour particular form types, with GRS2 predominantly occurring as beakers typical of production centres in Suffolk, GRS3, ROB SH, NAR RE1 mainly occurring as jars, and with LVN GS and COL BB2 limited to dishes.

Wattisfield/ Waveney Valley reduced wares

The distinctive micaceous fabrics of the Wattisfield/ Waveney Valley reduced wares (WAT RE1 and WAT RE2) account for the highest proportion of the coarse wares that could be assigned to a specific industry, though in this instance a group of pottery kilns distributed over a fairly wide area in central north Suffolk/ south Norfolk. WAT RE1, which accounts for 90.1% of this fabric group by sherd count (87.4% by weight) represents the 'classic' pale grey product of this industry, while WAT RE2

represents a black-surfaced variant, possibly manufactured by the deliberate ‘fuming’ of vessels during the firing process. The form types in this group exhibit a general bias towards those that may be considered table ware: beakers and open forms including platters, dishes, bowls and possibly bowl-jars (Table 130), often neatly finished and burnished. Jars appear to have parity in the total quantification of forms in WAT RE1/2, but are actually common in Roman Sub-Phases 2-3 and rare in all other sub-phases.

WAT RE1/2 form type	Period II: Roman Stratigraphic Sub-phase							Total
	1	2	3	4	5	6	7	
Beaker	2/0.10	6/0.65	3/0.10		3/0.50	2/-		16/1.35
Dish		3/0.68	2/0.25	5/0.40	6/0.40	3/0.20		19/1.93
Bowl		4/0.90	2/0.12	2/0.40	2/0.15			10/1.57
Bowl-jar	1/0.15	7/1.37	5/1.45	4/1.55		3/0.85		20/5.37
Jar	3/0.60	6/1.10	5/0.70	2/0.22	1/-	3/1.05	1/0.10	21/3.77
Platter	1/0.10	3/0.18	1/0.12	1/0.15				6/0.55
Cheese Press			1/-		1/-			2/-
Total	7/0.95	29/4.88	19/2.74	14/2.72	13/1.05	11/2.10	1/0.10	94/14.54

Table 130: Quantification of WAT RE1 and WAT RE2 form types in Period II, by minimum number of vessels/ R.EVE

The beakers in WAT RE1/2 are predominantly bag-shaped types (Symonds and Wade 1999: type Cam.108) produced in the early to mid 2nd century AD (Roman Sub-Phases 1-2), which account for at least ten vessels, with occasional contemporary beaker types also present. They bag-shaped beakers include, in Roman Sub-Phase 5 Ditch F1131 (Seg.E) a beaker with a zone of oblique impressed decoration (Fig.183.52) although body sherds suggest the bulk of this type of beaker was decorated with panels of barbotine dot decoration. Less common, but of comparable date were globular beakers that appear to be undecorated, including examples with a short everted rims in Roman Sub-Phase 2 Gully F2711 (Seg.G) (Fig.183.53) and Ditch F1282 (Seg.B) (Fig.183.54). Both these types were also present at the adjacent Maltings (Tester 2004, 37), while this assemblage also includes isolated examples of a WAT RE1 beaker with a cornice rim in Roman Sub-Phase 1 Gully F3199 (Seg.C) and a WAT RE2 beaker with a cordoned lip (Fig.183.55) in Roman Sub-Phase 2 Gully F1395 (Seg.A). The latter form of beaker is not a common type but is known to have been copied from imported Cologne wares (i.e. KOL CC) in local grey wares in the region around the mid 2nd century AD, including at Colchester (Symonds and Wade 1999: type Cam.404). The only WAT RE1 beaker in the assemblage dated to the latter half of the 2nd century AD comprised a bag-shaped beaker decorated with a square-toothed stamp (Fig.183.56), contained in Roman Sub-Phase 2 Layer L3609. It is closely comparable to beakers recorded at Hacheston (Arthur and Plouviez 2004: type 14), and is also a type produced at Colchester (Symonds and Wade 1999: type Cam.392), from where many of the Wattisfield/ Waveney Valley potters may have been influenced.

The WAT RE1 platters and the bulk of the dishes, where height is extant, appear to have comparably shallow profiles that may suggest commonality of function and presentation for these particular vessel types. The platters occur predominantly as a single type, unlikely to have been produced after the early 2nd century AD, but could potentially be *in situ* in Roman Sub-Phases 1-4 features (2nd-early 3rd century AD) if vessels were retained or continued to be produced locally in small numbers. The platter form type is a devolved imitation of a Gallo-Belgic type (Arthur and Plouviez 2004: type 32; Plouviez 2001, 22: fig. 13.63) that includes examples in Roman Sub-

Phase 2 Pit F3688 (Fig.183.57), Roman Sub-Phase 3 Pit F3734 (Fig.183.58) and Roman Sub-Phase 4 Spread L2477 (Fig.183.59). The single exception to this type of platter was recovered as un-stratified material, but typologically belongs to the late 1st to early 2nd centuries AD, and is distinct as the interior is decorated with an inscribed circle and radiating comb-impressed lines (Fig.183.60) that highlight the aesthetic ideal that may have been attached to coarse ware vessels intended to be presented as table ware. The bulk of the dishes, accounting for 14 examples, are shallow 'pie' dishes with bead rims (Symonds and Wade 1999: type Cam.37/39; Arthur and Plouviez 2004: type 42), which were produced between the 2nd to early/mid 3rd centuries AD, consistent with their recurring presence in Roman Sub-Phases 2-5, possibly continuing into Roman Sub-Phase 6. The platters and dishes have comparable rim diameters that range between 16-24cm, and where extant the dishes appear to be of comparable height to the platters, including dishes in Roman Sub-Phase 2 Ditch F1909 (Seg.A) (Fig.183.61) and Roman Sub-Phase 4 Ditch F4536. Also of comparable shallow proportions are dishes with plain, slightly incurving rims (Symonds and Wade 1999: type Cam.40; Arthur and Plouviez 2004: type 38), which are limited to single examples in Roman Sub-Phase 4 Ditch F1888 (Seg.D) and Roman Sub-Phase 5 Gully F3358 (Seg.D). This pattern in WAT RE1/2 dishes only appears to change in Roman Sub-Phase 5, in the late 3rd century with the emergence of low quantities of bead and flange rim dishes (Symonds and Wade 1999: type Cam.305B; Arthur and Plouviez 2004: type 44). These include an example with a burnished wavy line on the flange (Fig.183.62) in Roman Sub-Phase 5 Ditch F4442 (Seg.A) that was probably not produced before the early/ mid 4th century AD.

The WAT RE1/2 bowls appear to demonstrate a similar chronological division as the beakers, with a switch in typology in the early/ mid 2nd century, corresponding with Roman Sub-Phase 2, in which all three types of bowl are present. This switch is manifested in a change from waisted bowls with cupped rims (Arthur and Plouviez 2004: type 36) and carinated bowls (Symonds and Wade 1999: type Cam.242) to semi-hemispherical, flanged bowls (Arthur and Plouviez 2004: type 43). The early 2nd century AD types include a WAT RE2 waisted bowl (Fig.183.63) contained in Roman Sub-Phase 2 Gully F2711 (Seg.G) that is also paralleled at Wherstead (Symonds 2001, 22: fig. 13.50), Scole (Rogerson 1977, 180: vessel 85) and Burgh (Martin 1988, 55: fig. 29.294); while a WAT RE1 carinated bowl with a highly burnished exterior (Fig.183.64) was contained in Roman Sub-Phase 2 Ditch F2253 (Seg.B). The slightly typologically later, mid 2nd-3rd century AD types include a WAT RE1 vessel with a smooth curved semi-hemispherical body (Fig.183.65) contained in Roman Sub-Phase 3 Gully F2322 (Seg.C), and a WAT RE1 bowl with a slightly carinated body in Roman Sub-Phase 4 Gully F3146 (Seg.B).

The remaining form type in WAT RE1/2 that appears to have functioned as an 'open' vessel comprises a limited range of bowl-jars, which are as common as dishes and jars in this fabric group. The bulk of the bowl-jars, at least 16 WAT RE1/2 vessels, occur as a single form type: a round-bellied vessel with a girth groove (Arthur and Plouviez 2004: type 30) that was produced throughout the 2nd-4th centuries AD at numerous centres across Suffolk including the Wattisfield area, West Stow and Pakenham. Examples (Figs.183.66, 183.67 and 183.68) of this type include several bowl-jars deposited near or wholly complete, including in Roman Sub-Phase 3 Ditches F3404 (Seg.A), F2489 (Seg.A), Roman Sub-Phase 4 Ditch F4536 and

unphased Layer L1610 respectively. These bowl-jars usually have a smooth, near glossy finish achieved by a moderate to high degree of burnishing applied to the exterior. Typically they have a rim diameter of 14-18cm, but occasional examples occur up to 28cm wide. These round-bellied bowl-jars occur in Roman Sub-Phases 1-6, and never exhibit any signs of ware, although a single example in Roman Sub-Phase 2 Posthole F3694 had a 4mm wide hole drilled through the body just under the girth groove, suggesting a secondary use of the vessel. In Roman Sub-Phases 1-2, the early-mid 2nd century AD, the round-bellied bowl jars are supplemented by low quantities of a typologically earlier variant bowl-jar with a double cordon (Symonds and Wade 1999: type Cam.218C; Arthur and Plouviez 2004: type 22A/B) that developed from 1st century AD (Belgic) antecedents. These included examples with decorated cordons, an unusual trait in this assemblage. Roman Sub-Phase 2 Pit F3128 and Roman Sub-Phase 4 Ditch F1765 (Seg.D) contained WAT RE1 bowl-jars with burnished lattice decoration (Fig.184.69 and 184.70) and Roman Sub-Phase 2 Ditch F2491 a WAT RE1 bowl-jar with burnished zig-zag decoration (Fig.184.71), while a highly burnished, plain bowl-jar of this type was utilised as a cremation vessel (Fig.184.72) in Roman Sub-Phase 4 F2555 (L2558).

By the nature of their construction, the WAT RE1/2 jars tend to fracture at the base of the neck, therefore diagnostic sherds are principally limited to fragments of everted bead or plain rims that give little indication of overall form. However, three specific types of jar can be defined in Roman Sub-Phases 2-3, which are the only sub-phases in which WAT RE1/2 jars may be recognised as common (Table 130), possibly suggesting a niche in the market in the early/ mid 2nd century AD. The three types were all also common components of the Wattisfield region, micaceous fabrics recorded at the adjacent Roman Maltings (Tester 2004, 37). The first type comprises narrow-neck jars with plain shoulder cordons (Arthur and Plouviez 2004: type 23) including an example in Roman Sub-Phase 2 Pit F3128 (Fig.184.73) that is also similar to types produced at West Stow (WES FR, above). The other two types are utilitarian jars or cooking pots; the former has an upright neck with an everted bead rim (Arthur and Plouviez 2004: type 29) and includes examples in Roman Sub-Phase 1 Pit F3205 (Fig.184.74) and Roman Sub-Phase 6 Cremation F1070 (Fig.184.75); the latter has a short neck with a down-turned plain or bead rim (Arthur and Plouviez 2004: type 25), including an example in Roman Sub-Phase 1 Ditch F1931 (Seg.C) (Fig.184.76). Both types occur entirely with rim diameters between 14-18cm, indicating a high degree of standardisation, either due to their function as containers or utensils (cooking methods). Typologically the upright neck types are earlier than the short-necked types, but the two clearly co-exist in Roman Sub-Phase 2/ 3, and in all subsequent sub-phases the diagnostic rim sherds are very rarely of sufficient extent to allow them to be assigned a specific type. The jars include an example with an upright neck in Roman Sub-Phase 6 Pit F1704 that has a soot-encrusted exterior (Fig.184.77), while bases probably from these types of jar in Roman Sub-Phase 2 Ditch F1659 (Seg.A) and Roman Sub-Phase 3 Gully F2322 (Seg.A) have single 10-20mm wide *post-cocturam* holes neatly drilled through the centre, suggesting they may have had multiple or successive functions in the preparation, processing or cooking of food. Further evidence of the processing of food stuffs on the site is provided by WAT RE1 basal fragments contained in Roman Sub-Phase 3 Gully F4069 (Seg.E) that exhibit the internal ridges and perforations characteristic of Roman cheese presses (Symonds and Wade 1999: type Cam.199),

with comparable vessels recorded at Caistor-by-Norwich (Swan 1981: types 31-2) and Brancaster (Andrews 1985: type 164.1).

Horningsea reduced and oxidised wares

The second group of coarse wares that could be assigned a provenance were produced at the Horningsea complex of kilns on the Fen Edge, 27km west-south-west of Beck Row. This is the same distance from Beck Row as the Wattisfield region (to the east), and both industries have similar transport links via Roman roads and navigable rivers, yet the contrast between the products of the two industries could not be more stark. The Horningsea kilns produced a single fabric that is represented by both oxidised (HOR OX) and reduced (HOR RE) fabrics that occur throughout Roman Sub-Phases 1-7. HOR OX is typically slightly more common than HOR RE in each phase group, notably in Roman Sub-Phase 2 where HOR OX accounts for 12.7% of the phase group, approximately double the proportion of HOR RE. In contrast to the Wattisfield region wares, the range of form type in the Horningsea wares is very limited (Table 131), predominantly comprising storage jars, narrow-neck jars and large (wide-mouthed) jars with a single shoulder cordon, despite the industry producing a much larger range of vessels including dishes and bowls.

HOR OX/RE form type	Period II: Roman Stratigraphic Sub-phase							Total
	1	2	3	4	5	6	7	
Bowl			1/0.12					1/0.12
Jar	2/0.25	11/2.23	12/1.17	7/1.77	8/0.56	6/0.59		46/6.57
Storage Jar	1/0.05	8/1.02	3/0.17	2/0.12	3/0.20	6/0.64		23/2.20
Total	3/0.30	19/3.25	16/1.46	9/1.89	11/0.76	12/1.23		70/8.89

Table 131: Quantification of HOR OX and HOR RE form types in Period II, by minimum number of vessels/ R.EVE

The range of form types does not appear to exhibit any bias towards HOR OX and HOR RE, except the narrow-neck jars which are entirely reduced. The size of the three main form types is striking: the storage jars typically have a rim diameter of 30-40cm, the large jars 24-32cm, and the narrow-neck jars 10cm with a globular body. The sheer size of the bodies associated with each of these vessel types could potentially have resulted in the fabric group being over-represented in quantification by sherd count and weight but the robustness of vessel, which typically results in large body sherds and analysis of the quantification by R.EVE suggests any bias is negligible. The large size of the vessels present a further contrast with the other coarse wares in the assemblage as the coarse, relatively crude Horningsea storage jars and jars are neither table wares (or suitable for presentation) nor utilitarian vessels suitable for cooking. Therefore it may be assumed that all three main vessel types arrived on the site, and probably continued to function, as containers either for the transfer or storage of goods. The Fen Edge, including the passage of the Carr Dyke and Akeman Street, which pass the Horningsea kilns would undoubtedly have comprised a major transfer point for commodities being exported and imported from the Beck Row region, and the commodities the Horningsea vessels carried can only be speculated on. In the Roman period East Anglia was a rich agricultural landscape, and despite the presence of an adjacent maltings, it is unlikely grain was being imported to Beck Row when it would have been available locally. However, grain (raw or malted) may have been imported and exported to and from Beck Row in Horningsea vessels that travelled back and forth from the south-western Fen Edge

and local area carrying multiple commodities or bulk staples before they were broken and discarded.

Storage jars are the most characteristic product of the Horningsea pottery industry, and diagnostic rim sherds from three types of storage jar occur with no apparent evolution in profile or size in Roman Sub-Phases 1-6 (diagnostic sherds are absent in Roman Sub-Phase 7). The most common type, with a minimum of ten examples, has a strongly everted bead rim and poorly-defined shoulder cordon (Evans *et al. forthcoming*: type SJ1.2). This form type includes an example (Fig.184.78) in Roman Sub-Phase 2 Ditch F1282 (Seg.B), and was previously recorded at the adjacent Maltings site (Tester 2004, 38: fig. 23.8). Also present in only slightly lower quantities are storage jars with strongly everted plain rims (Evans *et al. forthcoming*: type SJ1.1) or strongly everted bifid rims (Evans *et al. forthcoming*: type SJ2.2) that are otherwise identical and account for a minimum of seven and six storage jars respectively. The plain rimmed variant includes an example (Fig.184.79) in Roman Sub-Phase 2 Pit F3128, but the construction or manufacture of these vessels has resulted in a breakage pattern that does not preserve more than the rim and neck of the Horningsea storage jars.

The narrow-neck or constricted-neck jars in HOR RE account for a minimum of seven vessels whose production spans the 2nd and 3rd centuries AD. They exhibit minor variations in form, with either a plain rim and neck cordon (Evans *et al. forthcoming*: type CJ1.2), a bead rim and plain neck cordon (*ibid*: type CJ1.4/5), or a bead rim and neck cordon decorated with burnished vertical lines or a wavy line (*ibid*: type CJ1.6). All types are present in Roman Sub-Phase 2, the early to mid/late 2nd century AD, with only the decorated variant (CJ1.6) present up to Roman Sub-Phase 6, the 4th century AD, but this is based on a limited sample. Examples in Roman Sub-Phase 2 include, with a plain rim (Fig.184.80) in Pit F1299, with a bead rim (Fig.184.81) in Ditch F1470 (Seg.B), and decorated with a burnished wavy line (Fig.184.82) in Gully F4090 (Seg.C). Further narrow neck jars with neck cordons decorated with burnished vertical lines were contained in Roman Sub-Phase 4 Cremation F2556 (Fig.184.83) and Roman Sub-Phase 6 Gully F3279 (Seg.C) (Fig.184.84).

The bulk of the remaining jars in Horningsea fabrics may be categorised as wide mouthed types with plain shoulder cordons and either everted plain rims (Evans *et al. forthcoming*: type J9.1) or everted bead rims (*ibid*: type J9.3/10.1). Typically these vessels have a rim diameter of 24-32cm, but may range up to 36cm wide. Both types have long production ranges spanning the late 1st to 4th centuries AD, but the everted plain rim vessels in this assemblage are more common in Roman Sub-Phase 2 continuing in small numbers to Roman Sub-Phase 6, while the everted bead rim types first appear in Roman Sub-Phase 2 but are more common in Roman Sub-Phases 4-6. Wide-mouthed jars with a plain rim (J9.1) include examples in Roman Sub-Phase 2 Ditches F1282 (Seg.A), F1334 (Seg.A) (Figs.184.85 and 184.86), and in Roman Sub-Phase 3 Ditch F1923 (Seg.A) and Gully F2322 (Seg.C) (Figs.184.87 and 184.88). The wide-mouthed jars with everted bead rims (J9.3/10.1) included an example in Roman Sub-Phase 2 Pit F2535.

These common Horningsea ware jars are supplemented with rarer jar types with a more limited chronological range: rilled jars associated with early 2nd century AD

production, and bifid rim jars that occur only in Roman Sub-Phase 5. The former type with an everted plain rim and a rilled body has been recorded in early 2nd century AD kilns (Peachey 2011: figs. 9.21-26 and 11.74-75), and includes examples in Roman Sub-Phase 1 Ditch F1145 (Seg.A) (Fig.184.89) and Roman Sub-Phase 4 Ditch F4536 (Fig.184.90). The latter type with an everted bifid rim (Evans *forthcoming*: type J1.1) is limited to fragments from a single vessel distributed in the fills of Roman Sub-Phase 5 Ditch F5107 (Seg.B), therefore its apparently narrow chronology may be illusory. The only other type of Horningsea ware vessel in the assemblage comprises a HOR OX flanged bowl (Evans *forthcoming*: type B7.2) in Roman Sub-Phase 3 Ditch F4104 (Seg.F) (Fig.184.91) that was produced in the 2nd century AD, and would be consistent with Roman Sub-Phase 3 commencing in the late 2nd century AD.

Generic Locally-Produced Sandy Grey Wares (GRS1)

Fabric GRS1 is distinguished or in-distinguished by its generic fabric containing common to abundant medium quartz, with sparse mica, iron rich grains and flint. However by its nature, this fabric should not be regarded as a homogenous group as it certainly represents the products of a multitude of local kilns that were operated solely to cater for the basic requirements of the settlements at and around Beck Row. These kilns would have been established wherever basic resources (clay, wood and water) were sufficient to cater for the fundamental consumption of vessels created by a Roman society. Despite lacking the high mica content of the Wattisfield region products, the sandy grey wares were clearly produced according to the same ceramic tradition, probably betraying the influence of the major industry to the east on the local potters. The key difference, as would be expected, is that the sandy grey wares have a more utilitarian function apparent in the proportion of vessel types present. The most common vessel type is jars (Table 132), which account for c. 56% of the GRS1 vessels, with dishes also common and all other vessel types relatively scarce.

GRS1 form type	Period II: Roman Stratigraphic Sub-phase							Total
	1	2	3	4	5	6	7	
Beaker	1/0.10	1/0.15						2/0.25
Cup				1/0.15				1/0.15
Dish	2/0.23	2/0.30	5/0.64	4/0.35	3/0.35	7/0.54	1/0.05	24/2.46
Bowl	1/0.25			1/0.30		1/0.05		3/0.60
Bowl-jar		2/0.27	3/0.60	1/0.20	1/0.15			7/1.22
Jar	2/0.20	9/1.9	7/1.75	6/1.40	7/1.12	6/0.47	1/0.10	38/6.94
Platter/Lid					1/0.30			1/0.30
?Cheese Press				1/-				1/-
?Flagon			1/-					1/-
Total	6/0.78	14/2.62	16/2.99	14/2.40	12/1.92	14/1.06	2/0.15	68/11.92

Table 132: Quantification of GRS1 form types in Period II, by minimum number of vessels/ R.EVE

The GRS1 jars allow a slightly more developed chronological progression to be observed than their WAT RE1/2 equivalents, due to a higher quantity and quality of diagnostic sherds. In Roman Sub-Phases 2-3, the early 2nd to early 3rd centuries AD, the jars include the three main types present in WAT RE1/2: narrow-neck jars with plain shoulder cordons (Arthur and Plouviez 2004: type 23), jars or cooking pots either with an upright neck and an everted bead rim (*ibid*: type 29) or a down-turned plain or bead rim (*ibid*: type 25). Examples in Roman Sub-Phases 2-3 include a jar with an upright neck in Roman Sub-Phase 2 Gully F2711 (Seg.H) (Fig.185.92) and a narrow neck jar in Roman Sub-Phase 3 Ditch F1707 (Seg.L) (Fig.185.93). The jars

in Roman Sub-Phase 2 also include a single vessel in Gully F2388 with an everted plain rim and inscribed lattice on the body, an imitation of black-burnished ware types frequently produced in the region from the mid 2nd century AD (Arthur and Plouviez 2004: type 27). By Roman Sub-Phase 4, in the early to mid 3rd century AD the jars are almost entirely limited to types with down-turned rims (Arthur and Plouviez 2004: type 25) including an example in Ditch F1929 (Seg.F) (Fig.185.94). The jars in Roman Sub-Phases 5-7, from the 3rd century AD to the end of Roman occupation continue to be almost entirely limited to variants with down-turned rims, including an example in Roman Sub-Phase 5 Ditch F3901 (Seg.E) with a sooted exterior (Fig.185.95). The one addition to this pattern occurs in Roman Sub-Phase 6, in the early to mid/ late 4th century AD, with the appearance of low quantities of jars with bifid, frilled rims that may have formed part of face-pots (Symonds and Wade 1999: types Cam.287-90) probably produced at Colchester or Hadham but limited to only small fragments, notably in Roman Sub-Phase 6 Ditch F1727 (Seg.B) and Pit F2249 in this assemblage.

The typology of the dishes in GRS1 can largely be bisected according to chronology, with a brief overlap in styles probably in the late 3rd century AD (Roman Sub-Phase 5). Between Roman Sub-Phases 1 and 4, and into Roman Sub-Phase 5, the dishes are almost entirely comprised of shallow 'pie dishes' with either rounded or triangular bead rims (Symonds and Wade 1999: type Cam.37/39; Arthur and Plouviez 2004: type 42), including examples in Roman Sub-Phase 3 Ditch F5005 (Seg.E) and Roman Sub-Phase 4 Ditch F1765 (Seg.B) (Fig.185.96). These dishes typically have burnished interiors and exteriors, which combined with the height of the vessels mirrors the common WAT RE1/2 dish type in the same period. The only exception to this pattern before Roman Sub-Phase 5 comprises a 'dog-dish' with a slightly incurved plain rim (Arthur and Plouviez 2004: type 38) contained in Roman Sub-Phase 2 Pit F3128 (Fig.185.97) that is notable because it has the same shallow proportions as the 'pie dishes', in contrast to the other plain rim dishes that occur later in Roman Sub-Phase 6. In Roman Sub-Phase 5 bead and flange rim dishes (Arthur and Plouviez 2004: type 44) supplement the shallow dishes, and in Roman Sub-Phase 6 supersede them as the common type. They include examples in Roman Sub-Phase 5 Ditch F5086 (L5087) (Fig.185.98) and Roman Sub-Phase 6 Gully F2007 (Seg.B) (Fig.185.99). Like the GRS1 'dog dishes'; the bead and flange rim types are supplemented by plain rim dishes, but these examples appear significantly deeper and have a single exterior groove just beneath the rim (Arthur and Plouviez 2004: type 40B), and include examples in Roman Sub-Phase 6 Hearth F3605 and Gully F4075 (Seg.A). The final development in the GRS1 dishes, the emergence of decorated bead and flange rim dishes, occurs in Roman Sub-Phase 7 and corresponds with the same evolution in form in the WAT RE1/2 dishes in the mid 4th century AD. This type of dish was produced at Colchester (Symonds and Wade 1999: type Cam.305B) and is frequently present in late Roman deposits in the area of the site, notably at Icklingham (Plouviez 1976, 98: vessel 61) and Hockwold (Gurney 1986b, 80: vessels 134-7). These include examples with flanges decorated with an inscribed wavy lines in Roman Sub-Phase 7 Layer L3355 (Fig.185.100) and as disturbed material in Roman Sub-Phase 3 Gully F2057 (Seg.A) (Fig.185.101), while an example with stabbed decoration was also present as intrusive material in Roman Sub-Phase 1 Ditch F1931 (Seg.C) (Fig.185.102).

Fabric GRS1 also includes low quantities of other vessel types (Table 132), the most common of which are long-lived, round-bellied bowl-jars with a single girth groove (Arthur and Plouviez 2004: type 30) identical to the type that is common in WAT RE1/2, which occur in GRS1 from Roman Sub-Phases 2-5. Possibly related to these bowl-jars are perforated basal fragments contained in Roman Sub-Phase 4 Gully F1937 (Seg.B) and unphased Gully F3314 (Seg.B). Both bases exhibit closely spaced perforations c. 3mm wide, pierced through the base *ante-cocturam*. Therefore these vessels may have been produced as strainers with similar bodies to the bowl-jars, which are often modified in this manner *post-cocturam*, or the bases may have formed part of cheese presses with smooth, flat bases.

The remaining GRS1 vessels represent a more disparate group of types and sources. The drinking vessels include a bag shaped beaker with panels of barbotine decoration (Fig.185.103) in unphased Layer L1610 that was probably produced at West Stow (West 1990, 78-9: type 2.7) and is common in WAT RE1/2 and the fine reduced wares, while less common plain globular beakers were contained in Roman Sub-Phase 1 Gully F1280 (Seg.G) and Roman Sub-Phase 2 Ditch F1282 (Seg.A) (Fig.185.104). While less common in this assemblage, globular beakers are common in the region (i.e. Arthur and Plouviez 2004: type 14) and include examples from the adjacent Roman Maltings (Tester 2004, 37-38). The GRS1 drinking vessels also include an unusual coarse ware imitation of a samian ware Dr.33 conical cup (Fig.185.105) in Roman Sub-Phase 4 Pit F3771, similar to cups produced at West Stow (West 1990, 84: type 9) and possibly a local attempt to replicate the samian ware cups common in the assemblage. The GRS1 bowls include a flat-rimmed type with burnished lattice decoration (Fig.185.106) in Roman Sub-Phase 4 Ditch F4536 that was probably produced at Verulamium in the 2nd century AD (i.e. Wilson 1984: type 2386), while a small fragment of a highly-burnished, necked bowl with a bifid fluted rim in Roman Sub-Phase 6 Gully F4418 (Seg.D) was probably produced in the Hadham kilns. A large 2-rib strap handle (60mm wide) contained in Roman Sub-Phase 3 Ditch F2216 (Seg.A) may also have been part of a flagon produced at Hadham, although Colchester is an alternative viable source.

Distinct Locally-Produced Sandy Grey Ware Groups (GRS2 and GRS3)

GRS2 and GRS3 comprise fine and coarser sandy grey ware fabrics respectively, petrologically distinct from GRS1 that probably represent the homogenous output of specific production centres. The relatively fine, moderately micaceous fabric of GRS2 combined with the form types present, predominantly beakers, suggests a source in west Suffolk, probably at West Stow (West 1990, 76), Pakenham or Scole although other centres cannot be discounted. GRS3 is altogether rarer, coarser and limited to jars suggesting a may be the product of a local, utilitarian kiln or that it was imported as a container for a specific commodity. Such coarse fabrics are known at West Stow (West 1990, 76) but were more common in Essex, notably at Colchester (Symonds and Wade 1999, 379).

GRS2 is most common in Roman Sub-Phases 2-3 (Table 133), where it accounts for c. 2-3% of the phase groups, and the form types present appear to back a production range encapsulating the first half of the 2nd century AD. Half the GRS2 vessels comprise a single vessel type: bag-shaped beakers with panels of barbotine

decoration and short poppyhead rims (West 1999, 78: type 2.2; vessel 207). These early/ mid 2nd century AD beakers account for a total of 14 GRS2 vessels, including examples in Roman Sub-Phase 3 Gully F2322 (Seg.C) (Fig.185.107) and as a residual, near complete vessel in Roman Sub-Phase 6 Gully F1913 (Seg.C) (Fig.185.108). Intriguingly West (1990, 78: vessel 207) does not regard this neatly finished, burnished beaker type in a pale grey micaceous fabric as a West Stow product and cites an example from Grimstone End, Pakenham (Brown *et al.* 1954: fig. 25.2), while comparable beakers have also been recorded at Scole (Rogerson 1977: vessels 51, 64-5 and 68). The fabric of these GRS2 beakers contrasts significantly with the same forms in the 'classic' Wattisfield region fabric (WAT RE1) and the fine grey wares (including WES FR and GRF1/2), while the common presence of these beakers in this assemblage and at the adjacent Roman Maltings (Tester 2004, 38; fig. 23.7) supports a relatively local source such as Pakenham or Scole. A single additional GRS2 beaker is not of this type, and comprises a flat-rimmed, carinated beaker with a burnished exterior (Fig.185.109) contained in Roman Sub-Phase 4 Gully F3154 (Seg.F), and comparable to 2nd century AD beakers produced at Colchester and Verulamium (Symonds and Wade 1999: type Cam.110).

GRS2 form type	Period II: Roman Stratigraphic Sub-phase							Total
	1	2	3	4	5	6	7	
Beaker		3/-	1/0.15	2/0.40	2/-	6/0.95		14/1.50
Dish	1/0.05		1/0.10					2/0.15
Bowl-jar		1/0.25	1/0.50					2/0.75
Jar	1/0.40	1/0.20	3/0.40	1/0.50	2/0.50			8/2.00
Total	2/0.45	5/0.45	6/1.15	3/0.90	4/0.50	6/0.95		26/4.40

Table 133: Quantification of GRS2 form types in Period II, by minimum number of vessels/ R.EVE

The second common form type in GRS2, accounting for seven of the eight jars is a highly burnished, narrow-neck jar that is closely comparable to types produced at West Stow (West 1990, 78: type 3); including an example with a shoulder cordon decorated with burnished vertical lines in Roman Sub-Phase 1 Ditch F2189 (Seg.A), with a further residual example burnished to a near metallic finish (Fig.185.110) in Roman Sub-Phase 4 Ditch F4536 (Seg.C). The GRS2 also includes 'dog dishes' with bead rims, round-bellied bowl-jars including an example (Fig.185.111) in Roman Sub-Phase 3 Gully F2322 (Seg.C), and a short-necked jar with a down turned bead rim (Fig.185.112) in Roman Sub-Phase 3 Ditch F1923 (Seg.A) that each conform to the range of vessels common in GRS1 and WAT RE1/2.

GRS3 is most common in Roman Sub-Phases 1-4, from the early 2nd to early 3rd centuries AD, accounting for just 0.8-1.2% of the phase groups, and appearing to be limited to a single jar type. This suggests it may be the product of a local kiln established specifically to produce such jars, possibly catering for demand, or that this type of jar was the standardised container for a commodity imported to the site, possibly containing a recognised weight or measure. The GRS3 jars are short-necked with down-turned rims and a groove beneath the neck creating a narrow plain cordon (Arthur and Plouviez 2004: type 25A/D; Symonds and Wade 1999: type Cam.268). These include a jar (Fig.185.113) contained in Roman Sub-Phase 4 Cremation F2555 that has a sooted exterior, either because it was burnt in the cremation rite or due to a previous use in an oven/ fire.

Black-surfaced reduced wares

In addition to the sandy grey ware (GRS) fabrics, coarse wares of probable local production also occur as black-surfaced reduced wares (BSW1/2), which account for a total of 18.2% of the Period II Roman pottery by sherd count (15.3% by weight). The black-surfaced reduced wares could be sub-divided into a slightly finer, micaceous variant (BSW1) and a slightly coarser, sandier fabric (BSW2). However this sub-division may mask a myriad of local and regional sources for the fabrics, possibly stretching to Colchester, Horningsea, the Nar Valley, Hevingham, Scole and elsewhere in Norfolk and Suffolk. The form types of BSW1/2 exhibit a strong bias towards dishes (Table 134), possibly belying the influence of black-burnished ware services on local potters, with bowls and jars also relatively common. The black-surfaced reduced wares maintain a consistent presence of c. 15-17% throughout Roman Sub-Phases 1-7, which combined with the form types suggest they remained current throughout the occupation of the site and, in this instance, do not represent a Romanised continuation of the 'Belgic' grog-tempered pottery tradition that declined in the early/ mid 2nd century AD.

BSW1/2 form type	Period II: Roman Stratigraphic Sub-phase							Total
	1	2	3	4	5	6	7	
Beaker	1/-							1/-
Dish	1/0.07	5/0.85	4/0.39	4/0.30	4/0.25	9/0.52	2/0.50	29/2.88
Bowl	3/0.25	2/0.62	3/0.32					8/1.19
Bowl-jar				2/0.12				2/0.12
Jar	1/0.05	2/0.50	1/0.15	3/0.55	1/0.05	1/0.05	1/0.07	10/1.42
Platter		1/0.10		1/0.06				2/0.16
Total	6/0.37	10/2.07	8/0.86	9/1.03	5/0.30	10/0.57	3/0.57	52/5.77

Table 134: Quantification of BSW1 and BSW2 form types in Period II, by minimum number of vessels/ R.EVE

The most common vessel types in BSW1/2 are dishes that occur in the same range as the GRS1 dishes, and appear to have a similar chronology. Between Roman Sub-Phases 1 and 4 the most common BSW1/2 dish type were shallow 'pie dishes' with either rounded or triangular bead rims (Symonds and Wade 1999: type Cam.37/39; Arthur and Plouviez 2004: type 42), including a BSW1 example (Fig.185.114) in Roman Sub-Phase 3 Ditch F1923 (Seg.A). These are supplemented by slightly lower quantities of 'dog-dishes' with slightly in-curved plain rims (Arthur and Plouviez 2004: type 38) that may continue into Roman Sub-Phase 6, and include a BSW1 example in Roman Sub-Phase 2 Layer L2321 (Fig.185.115) and a BSW2 example in Roman Sub-Phase 2 Ditch F3601 (Seg.C) (Fig.185.116). Like the examples in GRS1, these two types of dish in BSW1/2 typically have shallow proportions and exhibit burnished interiors and exteriors. Accompanying these 'earlier' dish types in Roman Sub-Phase 2 are platters that imitate Gallo-Belgic (terra nigra) form types (Arthur and Plouviez 2004: type 32C), including a burnished BSW1 platter contained as residual material in Roman Sub-Phase 4 Gully F1711 (Seg.B) that may have remained in circulation in the early 2nd century AD but was probably produced in the 1st century AD. In contrast to the proportions of GRS1 dish types, deep dishes with a groove beneath the rim (Arthur and Plouviez 2004: type 40B) are also common in BSW1/2, predominantly occurring in Roman Sub-Phase 6 but present from Roman Sub-Phase 2 onwards. This type exhibits a variable degree of finishing ranging from a BSW2 example with a highly burnished interior and exterior in Roman Sub-Phase 4 Ditch F1929 (Seg.D), to an un-burnished BSW2 example with soot on the exterior surfaces (Fig. 185.117) in Roman Sub-Phase 7

Gully F1942 (Seg.A). The final type of BSW1/2 dish comprises bead and flange rim types (Arthur and Plouviez 2004: type 44) that, as expected occur from Roman Sub-Phase 5, the late 3rd century AD onwards. They include a single BSW1 example with wavy combed lines on the flange (Symonds and Wade 1999: type Cam.305B) in Roman Sub-Phase 6 Gully F1821 (Seg.B) that is unlikely to have been produced before the mid 4th century AD.

BSW1/2 bowls are common in Roman Sub-Phases 1-3 and absent thereafter. The most common form type comprises necked bowls with carinated bodies and plain neck cordons (Arthur and Plouviez 2004: types 19 and 22), which may have been produced up to the mid 2nd century and include, respectively, examples in Roman Sub-Phase 1 Gully F1038 (Fig. 185.118) and Roman Sub-Phase 2 Ditch F1334 (Seg.A) (Fig.185.119). These 'Romanising' form types suggest a minor degree of continuity with 1st century AD 'Belgic' grog-tempered types, which are absent in this assemblage. The remaining BSW1/2 bowls are varied, ranging from a deep bowl with a cupped rim (Fig.186.120) in Roman Sub-Phase 2 Layer L2321, to an imitation of samian form Dr.37 in Roman Sub-Phase 3 Gully F3603 (Seg.A) that are unlikely to post-date the mid 2nd century AD, to burnished semi-hemispherical flanged bowls including an example (Fig.186.121) in Roman Sub-Phase 3 Gully F4514 (Seg.A) whose production extends into the 3rd century AD. The imitation of samian form Dr.37 is particularly interesting as the fragmentary sherds body sherds from this vessel are decorated with inscribed lines filled with stabbed dots closely comparable to bowls produced at West Stow (West 1990, 81: type 5, fig. 59.247-249), where similar burnished semi-hemispherical flanged bowls were also produced (ibid, 81: fig. 59.241).

Sparse BSW1/2 jars are present from Roman Sub-Phases 1-7 but are generally limited to small fragments of everted rims, except for two vessels. The first comprises a BSW2 rilled jar (Fig.186.122) in Roman Sub-Phase 2 Gully F2711 (Seg.G) that was produced across the region up to the early 2nd century including at Greenhouse Farm kilns (Gibson and Lucas 2002, 119: fig. 11.2). The second comprises a BSW1 shouldered jar with a sinuous profile and burnished exterior (Fig.186.123) in Roman Sub-Phase 4 Ditch F1765 (Seg.D). The BSW fabrics also include a beaker in Roman Sub-Phase 1 and two bowl-jars in Roman Sub-Phase 4, all comparable to form types common in the coarse wares and fine reduced wares in the assemblage. The beaker is represented by a single BSW1 body sherd with a panel of barbotine dot decoration, suggesting it is from the same early 2nd century bag-shaped form type (West 1990, 78-9: type 202) that is notably common in the fine reduced wares. The bowl-jars are comparable to the round-bellied form types with a girth groove (Arthur and Plouviez 2004: type 30), notably common in WAT RE1/2.

Romano-British shell-tempered ware

The Romano-British shell-tempered ware (ROB SH) was probably imported from the Harrold kilns in Bedfordshire, c. 78km to the west of Beck Row, although other production centres including the Lower Nene Valley also produced shell-tempered pottery. ROB SH is present low quantities: c. 1-2% of each phase group from Roman Sub-Phases 1-5, rising to c. 4-6% in Roman Sub-Phases 6-7, a pattern typical in Roman pottery assemblages in East Anglia. The assemblage from the adjacent Maltings site contained only very low quantities of early Roman shell-

tempered pottery (Tester 2004, 38), possibly reflecting the cessation of occupation in that area by the early 3rd century AD.

The ROB SH predominantly occurs as jars with everted, slightly undercut 'drooping' bead rims comparable to types produced at the Harrold kilns (i.e. Brown 1994: figs. 26.95-7 and 34.248) and in the Lower Nene Valley (i.e. Perrin 1999: fig. 70.440 and 445), while occasional other jars and bowls are also present. The predominant type of everted bead rim jar is most common in Roman Sub-Phase 6, in the 4th century AD, but occurs in low quantities from Roman Sub-Phase 3, the late 2nd century AD, and occurs occasional in Roman Sub-Phases 1-2. This type of jar appears to have a consistent size, with all measurable rim diameters between 16-20mm; a degree of standardisation that may suggest these vessels has a specific purpose, possibly as containers. Examples of this jar included vessels in Roman Sub-Phase 2 Layer L2321 (Fig.186.124) and Roman Sub-Phase 6 Ditch F4106 (Seg.E) (Fig.186.125). The other type of ROB SH jar present has a rilled body (Brown 1994, 64: fig.29.173; Perrin 1999, 119: type 428) and a smaller rim diameter (12-14cm). This type of jar only occurs in Roman Sub-Phases 1-2, and includes an example in Roman Sub-Phase 2 Ditch F4389 (Seg.B) (Fig.186.126). In addition to the jars, two ROB SH bowls with heavy derivative reed rims were present in Roman Sub-Phase 6. This type of bowl is characteristic of production at the Harrold kilns from the mid/ late 2nd century AD onwards (Brown 1994, 60: fig. 27.122), with comparable bowls recorded in 4th century AD contexts across the Lower Nene Valley potentially attributable to Harrold (Perrin 1999, 120: type 476), which suggests a distribution that would be consistent with the chronology of Roman Sub-Phase 6.

Nar Valley reduced ware

The Nar Valley reduced ware (NAR RE) from kilns in north-west Norfolk, c. 39km to the north of Beck Row exhibits a similar bias in form type and standardisation of size as the ROB SH that also suggests it may have travelled in the region as a container. The bulk of the NAR RE appears to have formed shouldered jars with everted rims and oblique rusticated decoration on the body which have been recorded at kilns at East Winch (Peachey *forthcoming*: fig. 37.36-8) and Middleton (Gurney 1990: vessel 12) from the late 2nd century AD onwards, and are common at the Brancaster shore fort (Andrews 1985: vessels 100.1-3 and 100.14). This type of jar appears most common in Roman Sub-Phase 6, including a jar in Gully F4508 (Seg.A) (Fig.186.127), although body sherd in Roman Sub-Phase 2 suggest these jars may have been in circulation earlier. Also similar to the ROB SH, the NAR RE includes a single dish, in this instance a bead and flange rim dish (Andrews 1985: types 145.3-4) contained as an intrusive/ disturbed vessel in Roman Sub-Phase 3 Gully F2322 (Seg.A) (Fig.186.128), which does not pre-date the late 3rd century AD.

Other regional coarse wares

Lower Nene Valley grey-slipped ware (LNV GS) has a consistent, albeit very low, presence from Roman Sub-Phases 2-6 and was probably imported alongside the more common colour-coated wares (LNV CC) and white ware (LNV WH) including mortaria. Diagnostic sherds of LNV GS were limited to a single shallow bead rim dish (Perrin 1999, 85: type 75) contained in Roman Sub-Phase 3 Ditch F1423 (Seg.J). The dish type was produced from the mid/ late 2nd to late 3rd centuries,

consistent with Roman Sub-Phase 3, is closely comparable to those common and therefore already readily available in the local coarse wares, probably explaining the paucity of LNV GS.

Black-burnished ware 2, almost certainly produced at Colchester (COL BB2) was also limited to dishes. Two shallow dishes with slightly incurving sides (Symonds and Wade 1999: type Cam.40B) were present in Roman Sub-Phase 6 (Figs.186.129 and 186.130), contained in Gullies F3533 (Seg.A) and F4056 (Seg.D) respectively. Like the common examples in the local coarse wares both dishes have burnished interiors and exteriors, but lack any further decoration.

Mortaria

Mortaria are only present in the assemblage in low quantities, with the bulk supplied from the Lower Nene Valley (LNV WH (M)) and sparse vessels from other regional manufacturers (Table 135). Typically mortaria account for c. 0.6-1% of each phase group by sherd count, except in Roman Sub-Phase 7 when they account for 5.7%, however this statistic appears biased due to a small sample size. The earliest mortaria in the assemblage were imported from Colchester (COL WH (M)) in Roman Sub-Phases 1-2, which by the end of Roman Sub-Phase 2 in the late 2nd century AD are supplemented by LNV WH (M) and an isolated mortaria from Swanpool, Lincolnshire (SWN WS (M)). From Roman Sub-Phases 3-7 LNV WH (M) dominates and is supplemented from Roman Sub-Phase 5 in the early 4th century AD by vessels from Oxfordshire (OXF RS (M) and OXF WS (M)). From Roman Sub-Phase 6, in the early to mid/ late 4th century AD these are further added to by mortaria from Hadham, Hertfordshire (HAD OX (M)) and an isolated vessel from Mancetter-Hartshill, Warwickshire (MAH WS (M)).

Fabric	Sherd Count	Weight (g)	R.EVE
COL WH (M)	9	652	0.25
LNV WH (M)	29	1969	1.17
OXF RS (M)	5	195	0.60
OXF WS (M)	12	332	0.55
HAD OX (M)	4	132	0.15
SWN WS (M)	2	70	0.10
MAH WS (M)	1	25	0.05
<i>Total</i>	<i>62</i>	<i>3375</i>	<i>2.87</i>

Table 135: Quantification of mortaria in Period II

The Colchester mortaria (COL WH (M)) appear to have been limited to a form type with a drooping flange and small internal bead, characteristic of production in the 2nd century AD (Symonds and Wade 1999: type Cam.497). Rim sherds from this type of mortaria were contained in both Roman Sub-Phase 2 Layer L3609 and Roman Sub-Phase 3 Pit F1789, while non-diagnostic sherds of COL WH (M) were also recorded at the adjacent Maltings site (Tester 2004, 35).

Mortaria from the Lower Nene Valley are restricted to vessels in white ware (LNV WH (M)) that exhibit very little variability in form relative to their occurrence in features ranging from Roman Sub-Phase 2-6. The LNV WH (M) appear to be entirely comprised of reed-rimmed types (Perrin 1999, 130-131: types M21 and M25), whose production started in the late 2nd/ early 3rd century AD and spanned the 3rd century AD, with vessels possibly surviving in use into the early 4th century AD. These include mortaria contained in Roman Sub-Phase 2 Gully F1886 (Seg.E) and

Layer L2321 (Figs. 186.131 and 186.132), Roman Sub-Phase 4 Ditch F4959 (Seg.C) (Fig. 186.133), and Roman Sub-Phase 6 Ditches F1727 (Seg.B) and F4885 (Seg.B) (Figs. 186.134 and 186.135). Un-diagnostic LNV WH (M) was also recorded at the adjacent Maltings (Tester 2004, 35). It is notable that all the LNV WH (M) in the assemblage exhibits heavily worn black slag trituration grits, which may reflect significant vessel life-spans but may also relate to the relative softness of the iron ore compares to the quartz/ flint grits of other mortaria.

The Oxfordshire mortaria exhibit the same basic fabric with contrasting slip-finishes: either red-slipped (OXF RS (M)) or white-slipped (OXF WS (M)) with each variant associated with different form types. The OXF RS (M) include, in Roman Sub-Phase 5 Ditch F5086, a single example of a wall-sided mortaria imitating samian form Dr.45 (Young 2000: type C97) that was in production from the mid 3rd century AD, but the remainder of the OXF RS (M) is limited to mortaria with an upright bead and angular flange (Young 2000: type C100.2) whose production was confined to the 4th century AD. The latter type includes a moderately worn example, contained as disturbed material, in Roman Sub-Phase 4 Gully F1869 (Seg.A) (Fig. 186.136). Like the OXF RS (M), the OXF WS (M) also include a single form type that was in production from the mid 3rd century AD, while the bulk are confined to a form type produced between the late 3rd to 4th centuries AD. The earlier form type, contained in Roman Sub-Phase 5 Gully F3188 (Seg.B), comprises a bead and flange rim mortaria (Young 2000: type WC7). The slightly later, more common OXF WS (M) mortaria has a upright bead with a groove on top and a slightly undercut, drooping flange (Symonds and Wade 1999, 193: fig. 4.22.83-84), and was present from Roman Sub-Phases 5-7 including an example in Roman Sub-Phase 7 Layer L3354 (Fig. 186.137). The entire Oxfordshire mortaria exhibit, where extant, moderately worn trituration grits that suggests the vessels were broken before they had been ground down beyond their main function.

The Hadham mortaria (HAD OX (M)) are limited to single diagnostic examples in Roman Sub-Phases 6 and 7 respectively that probably arrived in tandem with the sparse fine ware (HAD OX) flagons in the 4th century AD, and are comparable to types also exported to Colchester. The mortaria in Roman Sub-Phase 6 Gully F4056 (Seg.D) (Fig. 186.138) comprises a form type with an upright rim and short flange (Symonds and Wade 1999, 191: fig. 4.20.26), while the mortaria in Roman Sub-Phase 7 Layer L3355 (Fig. 186.139) is wall-sided (Symonds and Wade 1999, 191: fig. 4.20.12). The latter vessel is notable for both having a highly burnished external finish and heavily worn trituration grits. The other mortaria in the assemblage are represented by isolated vessels. A Swanpool (SWN WS (M)) reed-rimmed mortaria (Darling 1999, 110: vessel 586) contained in Roman Sub-Phase 2 Layer L3609 is a typically 3rd century AD form type, but could feasibly be contemporary with the tail end of this phase in the final years if the late 2nd century AD. Mortaria from Mancetter-Hartshill (MAH WS (M)) were recorded in the assemblage from the adjacent Roman maltings (Tester 2004, 35) and are represented in this assemblage, in Roman Sub-Phase 6 Gully F4056, by a small fragment from a mortaria with a undercut flange with a single groove on top (Symonds and Wade 1999, 164: fig. 4.23.97) that is more typical of the 2nd century AD and may be residual.

Amphorae and Other Storage jars

Amphorae and storage jar fabrics, excluding Horningsea wares remain rare throughout the assemblage (Table 136). Baetican (Dressel 20) olive oil amphorae (BAT AM2) account for c. 0.1-0.2 of the Roman Sub-Phase 2-6 phase groups, and other amphorae limited to a single fragment of Normandy wine amphorae (NOM AM). Grog-tempered storage jar fabrics (STOR1), possibly manufactured locally or in the Essex/ Hertfordshire region typically account for c. 0.2-0.7% of the Roman Sub-Phase 1-6 groups, appearing to rise in Roman Sub-Phase 7 due to the limited quantity of sherds assigned to this phase. The relative paucity of these vessels, designed for the bulk transport of commodities may be attributable to a combination of two factors. Firstly the demand for such containers was probably met by the characteristic storage jars from Horningsea (HOR RE/OX), which may have been repeatedly reused as they travelled to and from other areas of the Fen Edge, along rivers and to the site. Secondly, the lack of transport vessels from more distant regions should not be construed as a lack of imported food-stuffs (olive oil/ wine/ fruit) as commodities may have been decanted into smaller containers at the point of arrival, quite probably at ports on the Fen Edge, to effect greater commercial distribution either to market places or in pre-arranged quantities to specific consumers. If this was the case then new or re-used Horningsea ware storage jars or other jars may have been the logical method for onward conveyance by river or road, further explaining their frequency in the assemblage. Very low quantities of BAT AM2 and STOR1, alongside common Horningsea wares, were also recorded in the assemblage from the adjacent Roman Maltings (Tester 2004, 37-8).

Fabric	Sherd Count	Weight (g)	R.EVE
BAT AM2	13	3132	0.00
NOM AM	1	68	0.25
STOR1	45	5183	0.27
<i>Total</i>	<i>59</i>	<i>8383</i>	<i>0.52</i>

Table 136: Quantification of amphorae and storage jar fabrics in Period II

The BAT AM2 Dressel 20 amphorae are largely limited to body sherds, including handle stumps. One handle stump, contained in Roman Sub-Phase 2 Layer L2321 (Seg.C), exhibits a manufacturer's stamp on the body below the handle that may be read as PNN or PNAV (Fig.186.140) with the N and V conflated. The stamp is associated with amphorae production between c. AD 160-200 at Arva (Callender 1965, 209: no.1358), on the banks of the River Guadalquivir in the Roman province of Baetica (southern Spain). Baetican Dressel 20 amphorae, imported as containers for olive oil, are the most common amphorae recorded in Roman Britain and their distribution across western Europe suggests they were imported from the Mediterranean via the Rhône-Rhine river system. Other amphorae in the assemblage are limited to a single fragment of Normandy amphora (NOM AM) contained in Roman Sub-Phase 3 Ditch F1423 (Seg.H) that was probably imported via a less complex route across the English Channel, possibly via Colchester or a port on the east Coast. The NOM AM (Fig.186.141) comprises a 'furrowed rim' amphora (Gauloise 12/Peacock and Williams Class 55) that was produced at three known kiln sites in Normandy at Chartres (Eur-et-Loir), La Bosse (Sarthe) and La Boissiere-Ecole (Yvelines) although other production centres are speculated. This type of amphora typically contained wine and was produced in three size variants (Laubenheimer and Lequoy 1992) with this example (rim diameter 12cm) comprising the 'middle size', which would have contained c. 14.5 litres. NOM AM 'furrowed-rim'

amphorae were produced from the 1st century AD, but are most common in Roman Britain from the late 2nd century AD with a distribution strongly biased towards eastern England (Tyers 1996, 96), including examples from Hacheston (Arthur and Plouviez 2004: type 8A) and Norwich (Williams 2005).

Although more common than the amphorae, diagnostic sherds in storage jar fabric (STOR1) are equally scarce. The most common type, with examples in Roman Sub-Phase 5 Ditch F2174 (Seg.D) and Roman Sub-Phase 6 Ditch F3599 (Seg.C) are storage jars with 'golf-club' rims (Symonds and Wade 1999: type Cam.273) that have a rim diameter of 36cm, very similar to storage jars in Horningsea ware. The only exception to this form type is a storage jar in Roman Sub-Phase 2 Gully F3152 (Seg.C) that has a thick everted bead rim with two inscribed wavy lines on a shoulder cordon (Fig.186.142). This vessel has a rim diameter of 40cm, at the upper limit of the size of the Horningsea ware vessels, and is similar to storage jars recorded at Burgh (Martin 1988, fig. 32.352-5) and Colchester (Symonds and Wade 1999: type Cam.270B) that typically have stabbed decoration on the shoulder cordon.

The Roman Pottery by Phase Group

Roman Sub-Phase 1

The bulk of the pottery in Roman Sub-Phase 1 is contained in ditch and gully features, notably those that form or are aligned with sub-circular Enclosure 3, while significant quantities were also contained in 'misaligned' ditches and gullies (Table 137).

Feature Group	No. of features	Sherd Count	Weight (g)	R.EVE
Enclosure 3	9	56	719	0.33
Features similarly aligned with Enclosure 3 (group 1)	4	147	3223	1.30
Features similarly aligned with Enclosure 3 (group 2)	6	38	621	0.08
Misaligned ditches and gullies	6	102	2028	1.14
Other Roman Sub-Phase 1 features, including ditches and pits	32	146	3029	3.05
Total	57	489	9620	5.90

Table 137: Quantification of pottery groups in Roman Sub-Phase 1 that contained pottery

The pottery in Enclosure 3 and the two groups of associated aligned features are typically very sparsely distributed, with the only significant concentration comprising 101 sherds (2419g) contained in Ditch F1671 (L2075 Seg.A), almost entirely made up of GRS1 from the lower body of a large jar of undefined type. Other notable vessels in these feature groups comprise WES CR1 ring-necked flagons (Figs. 187.143 and 187.144), a GRS1 globular beaker, and BSW1 beaker with panel of barbotine dot decoration and a LEZ SA2 Dr.33 conical cup, which collectively indicated a date in the early 2nd century AD. The pottery from the Roman Sub-Phase 1 'misaligned' ditches and gullies, including a small concentration in Ditch F1145 (L1146 Seg.A), reflects a comparable date and includes a further WES CR1 flagon (Fig. 187.145), with a WES CR2 lid-seated jar (Fig. 187.146), A HOR OX rilled jar (Fig. 187.147), a WAT RE1 cornice rim beaker and a GRS1 dish imitating samian form type Dr.36. The remaining Roman Sub-Phase 1 features are limited to a sparse distribution of sherds in pits, ditches and gullies but retain a relatively high proportion of diagnostic sherds associated with an early 2nd century date. These include a GRF2 beaker (Fig. 187.148) and bowl with rouletted decoration (Fig.

187.149), a WAT RE1 shouldered jar (Fig. 187.150), a WAT RE2 bowl-jar (Fig. 187.151), a GRS2 narrow-neck jar, and a BSW2 carinated bowl (Fig. 187.152).

Roman Sub-Phase 2

The pottery groups from Roman Sub-Phase 2 comprises the largest from any stratigraphic phase group in the assemblage and includes significant groups from five enclosure or boundary systems and two layers (Table 138), although these pottery groups may represent successive activity within the early-mid/ late 2nd century and need not be contemporary.

Feature Group	No. of features*	Sherd Count	Weight (g)	R.EVE
Enclosure system 1	7	157	3194	1.11
Enclosure system 2	9	157	3089	3.30
Enclosure system 3	21	372	7452	4.34
Possible double-ditched boundary	8	179	1759	0.60
Southern boundaries and enclosures (group 3)	12	161	3987	2.55
Other southern boundaries and enclosures	5	27	310	0.25
Layer L3609	1	250	6703	2.48
Layer L2321	1	82	3124	1.29
Other Roman Sub-Phase 2 layers and spreads	7	148	2120	1.20
Roman Sub-Phase 2 pits and postholes	24	175	5708	2.96
Other Roman Sub-Phase 2 ditches and gullies	12	59	1065	0.22
Total	107	1767	38511	20.30

Table 138: Quantification of pottery groups in Roman Sub-Phase 2 that contained pottery

The pottery from Roman Sub-Phase 2 Enclosure System 1, including a concentration of 36 sherds (1245g) in Ditch F1282 (L1283 Seg.A) appears to represent an early-mid 2nd century AD group predominantly comprised of coarse wares, particularly WAT RE1 and Horningsea fabrics with other local coarse wares also present. Vessels in this group include a WAT RE1 globular beaker (Fig. 187.153) and shallow bead rim dish (Fig. 187.154), a HOR OX1 cordoned jar (Fig. 187.155) and storage jar (Fig.187.156), and a GRS1 globular beaker (Fig. 187.157).

The Roman Sub-Phase 2 (possible) Double-Ditched Boundary appears early within the stratigraphic sequence (early/ mid 2nd century AD). The group includes a high proportion of West Stow cream wares (WES CR1 and WES CR2), which account for c. 22% of the feature group pottery by sherd count (c. 17% by weight), and appear to be entirely derived from several ring-necked flagons. Notable other early/ mid 2nd century AD vessels in this group include a south Gaulish (MON SA) Dr.27 cup with a double-curved wall, a WES FR1 bowl imitating samian bowl Dr.30 with ring-and-dot stamped decoration, a WAT RE1 platter, and GRS2 beakers with panels of barbotine dot decoration.

The pottery group from Roman Sub-Phase 2 Enclosure System 2, including a concentration of 43 sherds (1153g) in Ditch F1334 (L1335 seg.A) appears to represent deposition into the late 2nd century AD, but includes a significant component of vessels that date to the early/ mid 2nd century AD. This suggests that either the pottery group includes re-deposited vessels from features cut by Enclosure System 2 (i.e. Roman Sub-Phase 2 Enclosure System 1), or that Enclosure System 2 remained open from the early/ mid 2nd century AD and was the recipient of continued deposition throughout the phase, although neither theory must exclude the other. Vessels in the group that are no earlier than the late 2nd century AD include a

TRI SA cup (form type OandP LV13), body sherds of LNV CC beakers and a LNV WH (M) with a reed rim (Fig.187.158); while a LEZ SA2 conical cup (Dr.33), a HOR RE necked jar, a WAT RE2 bowl-jar (Fig. 187.159) and beaker with a cordoned lip (Fig.187.160) may also be contemporary. The early/ mid 2nd century AD vessels in this group are notable for including a WES FR1 beaker with a hooked rim and barbotine dot decoration (Fig.187.161) that was deposited complete in Ditch F1449 (L1503), possibly from a disturbed context. Further body sherds from similar early/ mid 2nd century AD beakers with panels of barbotine dot decoration in GRF1, GRS2 and WAT RE1 are also present in this group.

Roman Sub-Phase 2 Enclosure System 3 includes a high number of ditches that contained a relatively high total quantity of pottery: 372 sherds (7452g). However, these sherds are typically sparsely distributed with only Ditch F2711 (L2712 Segs. E, G and H) each containing as much as 17-19 sherds (700-800g). This group includes forms and fabrics, notably an east Gaulish samian ware (CHF SA) Dr.31 dish and an NAR RE rusticated jar that combined with the presence of a central Gaulish (LEZ SA2) Dr.33 conical cup and coarse ware (WAT RE1, HOR RE1 and GRS1) short-necked jars suggest deposition in the late 2nd century AD, probably within the final quarter of the century. The group also includes Horningsea storage jars and constricted neck jars (Fig. 187.162), WAT RE1 (Fig. 187.163) and GRS1 bowl-jars, a BSW1 dish (Fig. 187.164), and a COL CC1 roughcast beaker that may have been current in this period but have production ranges that do not preclude earlier origins, in line with the apparently residual early 2nd century AD vessels that are present in a similar pattern to those in Roman Sub-Phase 2 Enclosure System 2. The residual early 2nd century AD vessels have a higher diagnostic rim presence in the Roman Sub-Phase 2 Enclosure System 3 group than the late 2nd century AD vessels and include a WAT RE1 bi-conical bowl (Fig. 187.165) and cordoned jar (Fig. 187.166), a WAT RE2 waisted bowl (Fig. 188.167) and globular beaker (Fig. 188.168), a BSW1 rilled jar (Fig. 188.169), and a STOR1 storage jar (Fig. 188.170).

Like Roman Sub-Phase 2 Enclosure System 3, group 3 of the Roman Sub-Phase 2 Southern Boundaries (south-western quadrant) appears to date to the late 2nd century AD. This group is also relatively sparsely distributed, notably along the length of Ditch F4090; whose 14 segments (Segs.A-N) contained a total of 87 sherds (2583g). In contrast groups 1 and 2 of the Roman Sub-Phase 2 Southern Boundaries and Enclosures (south-eastern and south-western quadrants) contained only rare sherds. Late 2nd century AD components of this group include body sherds of TRI SA and PAK CC, a LNV CC jar and plain folded beaker, and a NAR RE rusticated jar, while HOR RE constricted neck jar (Fig. 188.171) and a ROB SH rilled jar (Fig. 188.172) are probably also contemporary. Residual/ re-deposited, early 2nd century AD vessels in the group include a WAT RE1 carinated bowl (Fig.188.173) and a WES CR1 ring-necked flagon (Fig. 188.174).

The most significant pottery group from a coherent Roman Sub-Phase 2 feature group was recovered from Layer L3609, a single spread covering an area of c. 49m². In total the pottery from this layer accounted for 250 sherds (6703g), c. 14% of the pottery in Roman Sub-Phase 2 by sherd count and weight, representing a minimum of 23 vessels (R.EVE: 2.48) that could be dated to the late 2nd century AD between c. AD 160-200. Unlike the Roman Sub-Phase 2 Enclosure System groups, the pottery from Layer L3609 does not contain an obvious residual component of earlier

2nd century AD vessels, although the production range of some vessels does span the 2nd century AD. Central Gaulish samian ware (mainly LEZ SA2, with LMV SA and LEZ SA1) and east Gaulish samian ware (RHZ SA and TRI SA) are present in approximately equal proportions, and represent at least eight samian ware vessels. These comprise three Dr.33 conical cups in LEZ SA2 including an example stamped by Maternus iv, Dr.18/31 shallow dishes in LMV SA and TRI SA, two Dr.31 shallow bowls in LEZ SA2, and a probable, unique tazze with a barbotine decorated rim (Fig.188.175) in east Gaulish samian ware (probably RHZ SA; see samian ware discussion). Other continental imports in this group are limited to body sherds of Baetican Dressel 20 olive oil amphorae (BAT AM2). In addition to the samian ware, the Layer L3609 group includes further fine ware and white ware in the form of LNV CC, PAK CC, COL CC1, WES CR1/2 and UNS WS1/3, including the base and lower body of a COL CC1 bag-shaped beaker with roughcast decoration (Symonds and Wade 1999: type Cam.391A/B). The most common fabrics in the Layer L3609 group are WAT RE1, HOR OX, GRS1, while other coarse wares with a limited presence comprise WAT RE2, HOR RE, GRS2, BSW1/2 and ROB SH, in total accounting for 11 coarse ware vessels. The most interesting of these vessels is a WAT RE1 bag-shaped beaker with stamped decoration (Fig. 188.176), while the other coarse ware vessels: 'pie dishes' with bead rims, deep dishes with a groove beneath the rim, short-necked jars, and bowl-jars with a girth-groove generally conform to the pattern of form types common across the assemblage in the 2nd-mid 3rd centuries AD. The Layer L3609 group also included fragments of two heavily worn mortaria: a COL WH (M) mortaria with a drooping flange and a SWN WS (M) with a reed rim, which provides an interesting chronological overlap as the former type went out of use in the late 2nd/early 3rd century AD, when the latter was introduced.

The final Roman Sub-Phase 2 pottery group of intrinsic interest was contained in Layer L2321, covering c. 75m² and containing a total of 82 sherds (3124g). Layer L2321 was situated c. 20m south-west of Layer L3609 and appears potentially contemporary with the larger group in the late 2nd century AD. The distribution of fabrics in Layer L2321 is similar to those in Layer L3609, with the addition of LNV WH and LNV WH(M) including a dish imitating samian form Dr.36 with red-painted decoration, a jar with a bifid rim (Fig. 188.177) and a heavily worn reed rim mortaria (Fig. 188. 178). However the most notable vessel in the Layer L2321 group comprises a BAT AM2 Dressel 20 amphorae represented by a body sherd and handle stump bearing a manufacturer's stamp that reads PNN or PNAV (Fig.188.179) with the N and V conflated, associated with production at Arva, on the banks of the River Guadalquivir in the Roman province of Baetica (southern Spain). A range of coarse wares is also present in the Layer L2321 group, including a BSW1 'dog-dish' (Fig. 188.180) and bowl with a cupped rim (Fig. 188.181), and a ROB SH jar with an everted bead rim (Fig. 181.182).

Roman Sub-Phase 3

The pottery groups from Roman Sub-Phase 3 include two substantial but contrasting groups from late 2nd-early 3rd century AD Enclosure Systems 1 and 4 (Table 139), with notable groups also from four further enclosure systems or groups of ditches and gullies.

Feature Group	No. of features	Sherd Count	Weight (g)	R.EVE
Enclosure system 1	11	304	7059	5.01
Enclosure system 2	5	101	1854	0.75
Enclosure system 3	10	109	2289	1.18
Enclosure system 4	28	353	5687	2.97
Enclosure system 5	9	95	2006	1.11
Ditches and gullies (western quadrant)	12	102	1872	0.82
Other Roman Sub-Phase 3 ditches and gullies	9	64	2211	0.91
Roman Sub-Phase 3 Pits	13	58	842	0.59
Other Roman Sub-Phase 3 features	2	9	68	0.00
<i>Total</i>	<i>99</i>	<i>1195</i>	<i>23888</i>	<i>13.34</i>

Table 139: Quantification of pottery groups in Roman Sub-Phase 3 that contained pottery

The largest Roman Sub-Phase 3 pottery group, by sherd count, was contained in Enclosure System 4, which lacked any high concentrations of sherds. This group has a significant diagnostic element of late 2nd-early 3rd century AD vessels, notably central Gaulish (LEZ SA2) and east Gaulish samian ware (RHZ SA), and Romano-British fine wares (LNV CC, PAK CC and OXF RS). The LEZ SA includes the rim of a Dr.37 bowl, a DR31 bowl and a Dr.31R stamped by Cambus I (c. AD 150-180) (Fig. 188.183), while the RHZ SA also included a Dr.31R bowl, with a Dr.32 dish and Dr.33 conical cup. LNV CC is the only common fine ware and includes four beakers, predominantly plain funnel neck types with folded bodies, with two jars and a jug. OXF RS is limited to very occasional sherds of necked bowls with rouletted decoration (Young 2000: type C75), which are typically typologically later, therefore may represent intrusive material, or the isolated early import of the fabric. This conclusion may also be applied to a single OXF WS (M) with an upright, grooved bead and drooping flange. The coarse wares in the group are dominated equally by GRS1 and WAT RE1, with relatively low quantities of Horningsea fabrics and limited quantities of VER WH and LNV GS also present. Notable coarse ware vessels include shallow 'pie dishes' with bead rims and bowl-jars with girth grooves in both GRS1 and WAT RE1 (Fig. 188.184), a flanged bowl in HOR OX (Fig. 188.185), and a VER WH jar with a short neck and bifid rim (Fig. 188.186).

Roman Sub-Phase 3 Enclosure System 1 contained a large group of pottery that did not include any anomalous concentrations, however approximately half the pottery from this feature group: 159 sherds (3819g) was recovered from segments of lengthy Ditch F2322 (=3236=3603). In contrast to Roman Sub-Phase 3 Enclosure System 4, this large pottery group appears to contain a high quantity of diagnostic vessels associated with an early-mid 2nd century AD date, notably south and central Gaulish samian ware, flagons from West Stow (WES CR1 and WES FR), and beakers with panels of barbotine dot decoration in WAT RE1 and GRS2, suggesting a significant residual or re-deposited component. However the presence of jars in LNV CC and NAR RE1 is indicative of the late 2nd century AD commencement of this sub-phase. Further notable vessels that appear to be associated with the late 2nd-early 3rd century AD date of this group include a COL CC1 beaker with roughcast decoration, bowl-jars with girth grooves in WAT RE2 (Fig. 188.187) and GRS2 (Fig. 188.188), a flanged bowl in WAT RE1 (Fig. 188.189), a cordoned jar in HOR OX (Fig. 188.190), a plain rim dish in UNS WS1 (Fig. 188.191), and a short-necked jar with a bifid rim in UNS WS2 (Fig. 188.192).

The bulk of the pottery group from Roman Sub-Phase 3 Enclosure System 2 is contained in Ditch F1923, which accounts for 81 sherds (1561g) and the entirety of

the diagnostic sherds in this group. The diagnostic vessels in this group include and OXF RS bowl, imitating samian form Dr.38 that was not introduced until the early/ mid 3rd century AD and would represent an early chronological occurrence in East Anglia if it is not intrusive. The presence of this bowl alongside shallow, bead rim bead rim dishes in GRS1 and BSW1 (Fig. 188.193), whose occurrence declines in the early/ mid 3rd century AD suggests that the chronology of Roman Sub-Phase 3 Enclosure System 2 spans the final decades of the sub-phase. Other diagnostic vessels that appear contemporary in this group include an LNV CC jar (Fig. 189.194), a HOR OX narrow-neck jar (Fig. 189.195) and a GRS2 short-necked jar (Fig. 189.196).

The distribution of pottery within Roman Sub-Phase 3 Enclosure System 3 is slightly biased towards Ditch F1423, whose segments contained 39 sherds (1068g) of the group. Two vessels within the group are of particular interest, the former an UNS WS1 bowl with a reeded rim (Fig. 189.197), which was probably produced at Godmanchester no later than the early 3rd century AD. The latter comprises the only example of a NOM AM furrowed rim amphorae (Fig. 189.198) in the assemblage, which would have had a primary function as a wine container. Other contemporary vessels in this group include an east Gaulish samian ware (CHF SA) Dr.18/31R or Dr.31R dish, a LNV CC jar and folded beaker, a HOR RE1 narrow-neck jar, with further utilitarian jars and dishes in WAT RE2, GRS1 and BSW1.

Roman Sub-Phase 3 Enclosure System 5 contained a relatively even, sparse distribution of pottery, including no samian, very limited fine ware and predominantly local coarse wares. The group includes a GRS1 bead rim dish; a type which declined in the early/ mid 3rd century AD, in association with a LNV CC plain rim dish (Fig. 189.199) which did not emerge until the late 2nd century AD. Also present in the group are bowl-jars with girth grooves in WAT RE1 (Fig. 189.200) and GRS1, a BSW1 flanged bowl (Fig. 189.201), and short-necked jars in GRS1 and GRS3.

The final significant pottery group in Roman Sub-Phase 3 was recovered from ditches and gullies in the western quadrant of the site, and appears to indicate deposition in the early 3rd century AD. The group includes an LNV CC plain funnel neck beaker with a folded body (Fig. 189.202), which did not emerge until the early/ mid 3rd century AD in conjunction with a BSW1 bead rim dish which declined in the same period. The pottery group includes both central and east Gaulish samian ware, in the form of a LEZ SA2 Dr.33 conical cup and a TRI SA Dr.31 bowl, and is also notable for including the modified base of a ROB SH jar that has been carefully trimmed into a disc (90mm diameter) with a hole (10mm diameter) drilled through the centre, presumably to act as a weight or counter.

Roman Sub-Phase 4

The pottery from Roman Sub-Phase 4 is dominated by the early-mid 3rd century AD pottery group contained in Roman Sub-Phase 4 Enclosure System 1 (Table 140), which accounts for 46.7% of the Roman Sub-Phase 4 pottery by sherd count (44.8% by weight), however significant pottery groups were also recovered from a possible enclosure in the south-western quadrant, and ditches and gullies in the northern quadrant.

Feature Group	No. of features	Sherd Count	Weight (g)	R.EVE
Enclosure System 1	19	517	8642	4.33
Ditches and gullies (northern quadrant)	7	123	2047	1.01
Ditches (south-eastern quadrant)	3	16	368	0.15
Possible enclosure (south-western quadrant)	10	263	4548	3.42
Dispersed Roman Sub-Phase 4 ditches and gullies	9	54	1268	0.20
Roman Sub-Phase 4 Pit cluster 2	3	22	208	0.25
Other Roman Sub-Phase 4 pits	7	60	695	0.15
Roman Sub-Phase 4 Funerary evidence	2	27	979	1.45
Spread L2477	1	24	536	0.15
Total	61	1106	19291	11.11

Table 140: Quantification of pottery groups in Roman Sub-Phase 4 that contained pottery

The pottery group from Roman Sub-Phase 4 Enclosure system 1 was recovered from the excavated segments of 19 ditches and gullies, with a bias in distribution towards four features, Ditches F1424 (=F1765=F1888), F1929, F2575 and Gully F3154; each containing between c. 40-115 sherds (c. 1-1.7kg) of pottery. Typologically the forms and fabrics in this group have close affinities with the late 2nd/early 3rd century AD vessels in Roman Sub-Phases 2-3, but stratigraphically this group post-dates the early 3rd century AD enclosure system groups in Roman Sub-Phase 3. In contrast, the presence of east Gaulish samian ware (RHZ SA and TRI SA), including a Dr.31 bowl and OandP LV13 cup with a hooked rim, supplemented with potentially long-lived late 2nd century AD central Gaulish samian ware (LEZ SA2), namely Dr.18/31R or Dr.31R and Dr.37 mould-decorated bowls, indicates that this group continues into the mid 3rd century AD, when the major import of samian ware to Britain ceased. The latest vessels in this pottery group comprise types introduced in the mid 3rd century AD, including a PAK CC folded beaker decorated with rouletted bands and an OXF RS bowl imitating samian form Dr.38, however the most striking vessel in the group comprises a LON MD factory lamp (Fig. 189.203) that was produced until the late 2nd century AD, potentially remaining in use or storage until it was broken and discarded in Roman Sub-Phase 4. Further fine ware vessels in the group include an LNV CC jar, an OXF1 vessel with a bifid, frilled rim possible derived from a face-pot, and a COL CC1 cornice rim beaker with roughcast decoration that is unlikely to post-date the early 3rd century AD. The most common coarse ware in this group is GRS1, which includes bead rim dishes (Fig. 189.204); everted bead rim jars (Fig. 189.205), as well as a narrow-neck jar with a bifid, frilled rim. WAT RE1, the Horningsea fabrics and BSW1 are also common, predominantly as utilitarian dishes and jars, including deep dishes with a groove beneath the rim in WAT RE1 and BSW1.

Possible Roman Sub-Phase 4 Enclosure 29 (south-western quadrant) also contained a relatively high total quantity of pottery, however the significant concentrations within the group: in Ditch F4536, particularly L4537 Seg.D and L4576 appear to be comprised of residual early 2nd century AD pottery vessels. In contrast Ditches F3376 (=F4445) and F4238 contained fabrics typical of the early to mid 3rd century AD chronology of the sub-phase, including sparse HAD OX, LNV CC, ROB SH, LNV WH (M) with an isolated sherd of OXF RS and the range of coarse wares common throughout the assemblage. Notable vessels amongst these fabrics include everted bead rim jars in ROB SH, shallow bead rim 'pie dishes' in GRS1, WAT RE1/2 that decline after the mid 3rd century AD, and a reed-rimmed mortaria in LNV WH (M) characteristic of the 3rd century AD.

Similar to possible Roman Sub-Phase 4 Enclosure 29, the pottery group from 'other' Roman Sub-Phase 4 Ditches and Gullies (northern quadrant) was also dominated by concentrations of residual early/ mid 2nd century pottery, notably in Ditch F2573 (L2574 Seg.A) and Gully F3146 (L3147 Seg.B). Sparse vessels indicative of the chronology of the feature group included a small rim fragment from a LNV CC beaker with a curved rim (Perrin 1999: types 158-164) in Ditch F1667 (L1668 Seg.G) and a WAT RE1 carinated bowl with a flanged rim in Gully F3146 (L3147 Seg.B), which remained common until the late 3rd century AD. There is little ceramic evidence for the commencement of this group; however the presence of body sherds of NAR RE1 and ROB SH further suggests this group does not pre-date the late 2nd/ early 3rd century AD. Further Ditches (south-eastern quadrant) produced only a limited quantity of pottery, but included a TRI SA Dr.31 bowl, a LNV CC folded beaker with scale decoration, and a LNV WH (M) mortaria with a reed rim, partially intact spout and heavily worn trituration grits (Fig. 189.206), which combined form a cohesive group of early-mid 3rd century AD pottery. This chronology is also supported by the presence of the footed base of a PAK CC beaker in Roman Sub-Phase 4 Spread L2477, although this group also includes early 2nd century AD sherds.

The Roman Sub-Phase 4 pottery group also contained evidence for possible funerary activity in the form of potential Cremations F2555 and F2556. The former 'cremation' pit contained approximately one third of a WAT RE2 bowl-jar (Fig. 189.207) that is intriguing as the form type had declined by the early/ mid 2nd century AD. This vessel was also associated with a single fragment of a GRS3 jar (Fig. 189.208). The latter 'cremation' pit included the complete (cross-joining) neck and shoulder of a HOR RE narrow-neck jar (Fig. 189.209). Neither of the two principal vessels in this group appear to have been associated with identifiable cremated human bone, however the presence of significant portions of the two vessels, albeit fragmented, suggests that it cannot be discounted they were deliberately deposited as part of a funerary rite or other ritual.

Roman Sub-Phase 5

The pottery from features assigned to Roman Sub-Phase 5 is dominated by three mid 3rd-early 4th century AD groups contained in Enclosure Systems 1 and 2, and the Ditches and Gullies in the northern quadrant (Table 141), including numerous bead and flange rim dishes not introduced until the late 3rd century, as well as mid/late 3rd century AD mortaria. Despite the apparent high quantities of pottery in the three major Roman Sub-Phase 5 feature groups, there are no significant concentrations of sherds at specific locations, rather the total quantities reflect the accumulation of material through a high number of often lengthy ditches.

Feature Group	No. of features*	Sherd Count	Weight (g)	R.EVE
Ditches and gullies (northern quadrant)	11	205	4388	1.47
Enclosure System 1	26	413	6273	2.73
Enclosure System 2	23	300	5145	2.39
Roman Sub-Phase 5 Structures	6	11	54	0.15
Pits and postholes	16	59	727	0.42
Roman Sub-Phase 5 Spread L3295	1	24	452	0.05
Other Roman Sub-Phase 5 features	5	34	532	0.80
Total	88	1046	17571	8.01

Table 141: Quantification of pottery groups in Roman Sub-Phase 5
* that contained pottery

The largest pottery group within Roman Sub-Phase 5 was recovered from Enclosure System 1, in total accounting for 413 sherds (6273g), contained in the highest number of associated ditches and gullies (23 separate features) within the sub-phase. The principal pottery containing feature within this group was Ditch F3402 (=F3435), which contained a total of 138 sherds (1686g) of pottery distributed through 14 segments. A distinct vessel in this group which does not appear prior to the mid 3rd century AD comprises an OXF RS (M) wall-sided mortaria (Young 2000, 173: type C97), while the characteristically 3rd century AD LNV WH (M) reed-rimmed mortaria continue to be present. Fine wares including samian ware and LNV CC have a distinct presence in this group. The samian ware includes the base of an east Gaulish (TRI SA) Dr.18/31R or 31R roulette decorated bowl, which declined after the mid 3rd century AD, while central Gaulish (LEZ SA2) Dr.33 conical cups may not be residual but long-lived survivals in the 3rd century AD. LNV CC beakers in the group demonstrate considerable variety and include body sherds from form types with painted and roulette decoration, folded and roulette decoration, and a barbotine 'hunt' design that could all feasibly be contemporary in the mid 3rd century AD, though probably not by the end of the century. Dishes in LNV CC are indicative of the chronological development of vessels in this group, which are also evident in the coarse wares. The LNV CC includes a dish with a bead and flange rim (Fig. 189.210), as well as a shallow plain rim dish, both of which did not emerge until the late 3rd century AD, continuing through the 4th century AD. Bead and flange rim dishes also occurred in this group in GRS1 (Fig. 189.211) and WAT RE1 (Fig. 189.212), while further plain rim dishes occurred in BSW1 and GRS1 (Fig. 189.213), although the burnishing of the interior and underside of the latter vessel suggests it may also have functioned as a lid. The number of other coarse ware form types in this group that can be definitely be assigned to the mid 3rd century are limited, and some early/ mid 2nd century AD vessels are certainly present, however a GRS1 jar with a short neck (Fig. 189.214), a ROB SH everted bead rim jar, and four Horningsea ware vessels appear to belong in this phase group. The Horningsea ware vessels include jars with either everted bead or bifid rims, and a storage jar with a bifid rim.

The pottery group from Roman Sub-Phase 5 Enclosure System 2 followed a similar pattern to that in Enclosure System 1 with significant total quantities of pottery distributed along Ditch F1139 (=F2291), which accounted for 105 sherds (1395g) and Ditch F2174, which accounted for 31 sherds (1344g), without any evident concentrations of sherds. The chronology of this group is reflected in the presence of LNV CC funnel neck beakers with folded bodies, barbotine scroll and roulette decoration; and a BSW1 bead and flange rim dish, neither of which developed until the late 3rd century AD. The base of an LNV CC jar is also present but the most notable vessel in this group comprises an OXF RS bowl (Fig. 189.215 with rouletted decoration on the neck, shoulder and lower body (Young 2000: type C75) that did not develop until the early 4th century AD and may represent one of the latest vessels in Roman Sub-Phase 5. The Roman Sub-Phase 5 Enclosure System 2 group also contains a moderate degree of residual 2nd century AD pottery, but it is likely the coarse wares include GRS1 and Horningsea ware jars with everted bead rims, and a STOR storage jar with a golf-club rim that are contemporary with the chronology of Roman Sub-Phase 5.

The final significant group in Roman Sub-Phase 5 was recovered from ditches and gullies in the northern quadrant, which included a total of 70 sherds (1240g) distributed through Ditch F3188. In contrast to Roman Sub-Phase 5 Enclosure Systems 1 and 2, the pottery group from ditches and gullies in the northern quadrant does not exhibit such an obvious residual component, and the bulk of the diagnostic sherds and fabrics have production ranges that extend to or through the mid 3rd-early 4th century AD. Fine ware in the group includes samian ware, LNV CC, HAD OX and OXF1. The samian ware is limited to an east Gaulish (TRI SA) Dr.32 with incurving sides (and a very orange slip) that probably comprises a mid 3rd century AD import, while the base of a central Gaulish (LEZ SA2) Dr.31 bowl (Fig.189.216) stamped by Paullus V (c. AD 165-200) could potentially have survived in use to Roman Sub-Phase 5. LNV CC remains the dominant fine ware and includes the same range of beakers and jars as in Roman Sub-Phase 5 Enclosure Systems 1 and 2, with the addition of a bowl imitating samian form Dr.31, while the only other diagnostic fine ware comprises a small fragment from the neck of a HAD OX disc-necked flagon. The second strong chronological indicator in the group, mortaria, includes two OXF WS (M) and one LNV WH (M) vessels. The OXF WS (M) vessels, both only moderately worn prior to breakage, comprise form types with a bead and flange rim (Young 2000: type WC7) and with an upright grooved rim and drooping flange (Symonds and Wade 1999, 193: fig. 4.22.83-4), both of which did not arrive prior to the mid/ late 3rd century AD, while the LNV WH (M) mortaria with a reed rim declined after the early/ mid 4th century AD. The coarse wares in the Roman Sub-Phase 5 Ditches and Gullies (northern quadrant) group are dominated by GRS1, but WAT RE1, BSW1, the Horningsea fabrics and ROB SH are also common, while NAR RE1 is also present. The coarse ware form types are generally fragmentary but appear limited to everted bead rim jars, and bead and flange rim dishes, with storage jars also present in the HOR RE1.

Roman Sub-Phase 6

The pottery from features assigned to the early to mid 4th century AD is dominated by that contained in Roman Sub-Phase 6 Enclosure System 1 (Table 142), which contains over half the diagnostic sherds in this sub-phase, with a further significant proportion of sherds contained in other Roman Sub-Phase 6 ditches and gullies that do not form any part of a recognisable enclosure system.

Feature Group	No. of features*	Sherd Count	Weight (g)	R.EVE
Enclosure System 1	36	540	9836	7.19
Ditches and gullies in the western quadrant	7	19	139	0.00
Pit/Posthole clusters (11 sets)	24	116	1459	0.37
Pit/Posthole pairs (4 sets)	4	38	585	0.47
Isolated/dispersed pots and postholes	27	105	1695	0.44
Funerary Evidence	2	37	283	0.60
Animal Burials	3	8	38	0.00
Possible Kiln F3605	2	82	2003	0.39
Roman Sub-Phase 6 Layers, spreads and subsoils	3	181	3241	0.37
Other Roman Sub-Phase 6 ditches and gullies	42	298	5179	3.08
Total	150	1424	24458	12.91

Table 142: Quantification of pottery groups in Roman Sub-Phase 6 that contained pottery

Despite a substantial total quantity, the pottery in Roman Sub-Phase 6 Enclosure System 1 is relatively sparsely distributed, with the bulk of the diagnostic material

appearing residual. It appears highly likely that the sparse concentrations of sherds within the enclosure system reflect the locations at which Roman Sub-Phase 6 features truncated earlier deposits and re-deposited sherds, potentially spanning Roman Sub-Phases 1-5. Despite this, the group does include sherds that indicate the enclosure system was established in the early 4th century AD: notably short-necked jars in LNV CC (Figs. 190.217, 190.218 and 190.219; Perrin 1999, 107: types 273, 280 and 282) as well as bead and flange rim dishes (Fig. 190.220); everted bead rim jars in ROB SH (Fig. 190.221), flagons in HAD OX (Fig. 190.222), and necked bowls with rouletted decoration in OXF RS (Young 2000, 165: type C75). These particularly indicative sherds were notably present in Gullies F1446, F1821, F3525, F4375, F4566, and Ditches F1919 and F4073. These form types, in addition to bead and flange rim dishes in other reduced coarse wares (GRS1, WAT RE1) typically maintain their currency throughout the 4th century AD; therefore the definition of the terminal date for Roman Sub-Phase 6 Enclosure System 1 is less clear. Horningsea (HOR OX1 and HOR RE1) have a consistent presence in the group, and their production appear to have ceased in the mid 4th century AD, while an LNV CC bowl imitating Dr.37 (Perrin 1999, 103L type 240) contained in Gully F4418 also declined after the early 4th century AD. If these vessels are not residual but contemporary with vessels that enter circulation in the early 4th century AD, then the enclosure system may have gone out of use in the mid 4th century AD, or otherwise continued until the end of occupation on the site.

The pattern of form types remains sparse but apparent in the other ditches and gullies in Roman Sub-Phase 6, as well as the pits and postholes (both clustered and isolated), notably Pits F3297 and F3996. Ditch F4056 is notable for the 4th century AD character of the pottery it contains, including a small fragment of an LNV CC flagon or jug with a flaring rim (Fig. 190.223), a HAD OX (M) with an upright rim and short flange (Fig. 190.224), as well as a HOR RE1 wide-mouthed, necked jar with a bead rim and a ROB SH jar with a plain rim. The pottery contained in possible Kiln F3605 and the associated deposit in Pit F3599 comprised approximately half GRS1 but also contained regionally-imported wares, notably a NAR RE1 jar with rusticated decoration, as well as LNV CC, OXF RS, HOR RE1, ROB SH, STOR and clearly residual fabrics suggesting this was a back-filled rubbish deposit rather than the remnants of the last firing of the kiln. Cremation F1068 (L1070) was the only funerary evidence to include a deliberately deposited vessel, comprising a WAT RE1 shouldered jar with an everted bead rim (Arthur and Plouviez 2004: type 29), was the prevalent jar type in the late 1st to 2nd centuries AD but as a utilitarian form could feasibly have retained currency throughout the Roman period. The layers and spreads in Roman Sub-Phase 6 contained a scarce distribution of sherds with little diagnostic potential.

Roman Sub-Phase 7

Limited concentrations of sherds were present in three Roman Sub-Phase 7 feature groups (Table 143) of limited extent, notably Ditch F1925 and Layer L3354, with all three feature groups distinguished from Roman Sub-Phase 6 by diagnostic sherds that signify deposition no earlier than the mid 4th century AD (through to the end of Roman occupation at the site).

Feature Group	No. of features	Sherd Count	Weight (g)	R.EVE
Feature cluster 1	3	65	1718	0.66
Feature cluster 2	1	8	511	0.37
Roman Sub-Phase 7 Layers	2	100	1783	1.39
<i>Total</i>	6	173	4012	2.42

Table 143: Quantification of pottery groups in Roman Sub-Phase 7 that contained pottery

The chronological distinction from the pottery in Roman Sub-Phase 6, which may be statistical rather than actual, is signified by the appearance of form types whose production is thought to commence in the mid 4th century, in particular OXF RS bowls imitating samian form Dr.38 with white-painted scroll decoration the flange (Young 2000: type C51), OXF RS necked bowls with rouletted and stamped decoration (Fig. 190.225; Young 2000: type C78), and a GRS1 bead and flange rim dish with an inscribed wavy line on the flange (Fig. 190.226). An OXF WS (M) mortaria with a grooved bead and undercut flange (Fig. 190.227; Symonds and Wade 1999: fig. 4.22.83-4) is also unlikely to pre-date the latter half of the 4th century AD. The group continues to include 4th century AD form types otherwise contemporary with Roman Sub-Phase 6 including: LNV CC jars (Fig. 190.228), a HAD OX (M) wall-sided mortaria (Fig. 190.229), everted rim jars in ROB SH and other coarse wares (GRS1/BSW1 and WAT RE1).

Discussion of the Roman pottery

The intricacies of form and fabric types present in the assemblage, and trends in supply and the character of chronological groups have been analysed and outlined, but to what extent can these facets of the assemblage inform on the function and economy of those that ultimately consumed and discarded the pottery. This assemblage reflects consumption/ deposition from Roman occupation that commences at the beginning of the 2nd century AD and peaks during that century, having thrived from the outset on an established supply network and continued to fully exploit the range of pottery available as the site developed, until the decline of Roman occupation in the late 4th century AD, if not later. This duration of occupation and activity may reflect the location of Beck Row on the eastern side of the Fen Edge that connects to the coast via the Fens and the Wash; and on the western periphery of central-western Suffolk that in the Roman period comprised a highly productive rural landscape characterised by a network of small towns and villas. Both these economic zones had extensive trade connections and industrial power of their own, which is reflected in the pottery assemblage and poses questions as to what the place of the activity at Beck Row was within this system.

This assemblage exists as a substantial extension of those recorded from the proposed Roman 'Maltings' adjacent to the north (Tester 2004) and from an area enclosed by the current excavation on the footprint of the former Smoke House Inn buildings (MNL 608; Benfield 2011a). The former produced a total of 1482 sherds (22003g) of Roman pottery, and the latter 4415 sherds (59117g). Several smaller Roman groups have also been recovered from adjacent areas (i.e. the PIK housing site (Tester 2006) and land adjacent to Skelton's Drove (Tester 2008)). Although the 'Maltings' and former Smoke House (MNL 608) assemblages included significantly less diagnostic pottery, it is clear that the earliest Roman groups from Beck Row date to the mid 1st century AD, potentially prior to the Roman Conquest and include 'Belgic' grog-tempered vessels (Tester 2004, 40). Therefore the 2nd century AD

commencement of activity in this assemblage was not spontaneous but probably a development or escalation of activity from this nucleus. The overall pattern of pottery consumption reflected in the assemblages from previous excavations, in terms of form and fabric types present and proportions is broadly similar to types that also occur in this assemblage, with an intensification of activity beginning in the early/ mid 2nd century AD coinciding with Roman Sub-Phase 2, and a preponderance of coarse wares from Horningsea, the Wattisfield/ Waveney Valley region and locally-produced sand-tempered reduced wares. Similarly these assemblages also indicate a slight decrease in activity/ pottery deposition by the late 2nd century AD, but in contrast appear to cease by the mid 3rd century AD or slightly later, with a marked scarcity of the 4th century AD fabric and form types present in Roman Sub-Phase 6-7. The extent and span of the complimentary assemblages suggests they are components of a wider Roman settlement system that incorporates a 'maltings' and several extensive enclosures; for which the function may continue to be extrapolated by pottery supply to the site.

The pottery discarded during the initial occupation of the site (Roman Sub-Phases 1-2) is dominated by three coarse ware fabric groups that continue in importance throughout Roman activity on the site (to Roman Sub-Phase 7). The three fabrics comprise: locally-produced sandy grey wares predominantly in a single fabric type (GRS1), with near equal quantities and proportions from two major pottery industries in the area, the Wattisfield/ Waveney Valley region to the east (WAT RE1/2) and Horningsea to the west (HOR RE/OX). However; this is not to suggest they were equal suppliers in competition with one another, but that each had products with an equal role to play in pottery consumption on the site. The products of Wattisfield/ Waveney Valley industry and the local kilns (possibly influenced by the former, major industry) appear to demonstrate a slight bias towards table wares, in particular bag-shaped beakers, often with barbotine dot decoration; dishes, bowls and bowl-jars, often with highly burnished surfaces. By comparison, although jars, as storage vessels or cooking pots have parity in the total quantification, they are in fact most common in Roman Sub-Phases 2-3, and appear to less importance in later sub-phases.

In contrast, the products of the Horningsea industry, equidistant from the site with the Wattisfield/ Waveney Valley region are clearly focussed on storage jars, narrow-necked jars and wide-mouthed jars that appear best-suited to function primarily as robust transport containers, and possibly later as general storage vessels. This pattern suggests that deliberate choices were made on the commodities brought to the site, with one centre and local producers selected for its tableware as a commodity, while the products of another equidistant centre (that also produced tableware) may only have arrived as containers for a separate commodity(s) from the south-western Fen Edge. This may reflect a commercial choice, or control of market supply and territory around Beck Row, possibly suggesting the local economy was centred to the east (rural Suffolk), while imported goods arrived from the west (the Fens). The presence of a range of samian ware, amphora from Baetica (BAT AM2) and Normandy (NOM AM) as containers for olive oil and wine respectively confirms ready access to trade routes from the continent. The range of products apparent in the major coarse wares, combined with a diverse range of minor coarse wares from Colchester, Verulamium and other East Anglian centres, as well as regionally-traded mortaria suggests that this settlement prospered as part of

a regional economy, and was not simply sustained or supported by local utilitarian wares, however prudent these were as a staple resource.

The quantities of coarse wares and the form types present in the assemblage are commensurate with a significant level of domestic consumption, yet the bulk of this pottery was recovered from enclosure systems apparently removed from evidence of substantial structures, but at odds with rural agricultural patterns of deposition. These include substantial pottery groups from multiple enclosure systems in Roman Sub-Phases 2-6, spanning the 2nd to mid 4th centuries AD. Therefore were the contrasting products of the pottery production centres in fact in transit, with the settlement/ structures at Beck Row (i.e. Bales 2004) acting as a node within the Romano-British economy between the different landscape zones to the east and west. If the vessels were in transit, or the area enclosed represents the loading and unloading of goods, then this may have resulted in a high enough degree of breakage to deposit these pottery groups. An alternative or possibly complimentary interpretation may be that the vessels represent an accumulation of pottery resulting from a social or commercial gathering within the enclosures, such as a market that did not require substantial buildings. The process of distribution in the life of consignments of pottery vessels is little understood or recorded by classical authors or modern analysts (Theodore Peña 2007, 36), in contrast to patterns of distribution or trade charted by plotting the incidence of fabric and form types. Although there is no evidence of specialised pottery wholesalers, logic dictates there must have been locations or circumstances where pottery supplied from multiple production centres converged other than end users such as villas, therefore in the absence of major structures, it remains feasible these enclosures had an alternative function in the consumption or movement of large quantities of pottery without being an end user.

The regional and continental import of 'specialist' wares to the site support the theory of a relatively significant level of status and consumption associated with the enclosure systems. A relatively local important source of fine reduced ware and cream wares in Roman Sub-Phases 1-2 was West Stow (WES FR, WES CR1/2 and possible GRF1/2), especially reduced beakers and cream ware ring-necked flagons, mirroring the pattern in contemporary deposits from the settlement at Scole (Rogerson 1977, 173-285). In the 2nd to early 3rd centuries AD the fine wares were supplemented by low quantities of colour-coated beakers from Colchester and Pakenham, but by the mid/ late 2nd century AD the West Stow fabrics had been superseded by beakers, flagons, dishes and bowls from the Lower Nene Valley (LNV CC/LNV WH), which are supplemented in the late Roman period by vessels from Oxfordshire (OXF RS) and Hadham (HAD OX), predominantly bowls and flagons respectively. This pattern of fine wares is typical in contemporary pottery groups from settlements in Suffolk and Norfolk, including Scole (Rogerson 1977, 186-194), Icklingham (Plouviez 1976, 85-101) and Billingford (Cooper and Lyons 2011, 56-57)

Samian ware forms a consistent part of the fine ware in the assemblage from Roman Sub-Phases 1 to 4 and possibly into Roman Sub-Phase 5. It was predominantly imported from central Gaul, with rare south Gaulish fabrics in the early sub-phases and supplemented by lesser quantities of east Gaulish fabrics throughout the mid 2nd to mid 3rd centuries AD as is typical of sites in East Anglia, but it is the composition of the form types that distinguishes the samian ware and highlight a pattern in the assemblage as a whole. The proportion of mould-decorated bowls is very low, while

the proportion of cups is approximately double what would be expected on a rural site, reflecting the high number of drinking vessels in the total assemblage (approximately 2:3 compared with jars or dishes/ bowls). The potential status of activity within the enclosure systems and the complexity of their function is further elevated by the presence of a hitherto unknown form of samian ware tazza or cup from east Gaul (RHZ SA), a mica-dusted factory lamp from London (LON MD) and a fine grey ware (GRF1) inkwell suggest an alternative, higher status function that might tentatively imply an administrative presence or particular cultural practice within the enclosures that is not typical in East Anglia, if their sole purpose was not as isolated and unusual traded curios.

5.2 The post-Roman pottery

Peter Thompson

The excavation recovered 114 sherds of post-Roman pottery weighing 2561g (an additional residual body sherd of prehistoric pottery containing sand and sparse flint temper weighing 6g from Pit F3756 is probably middle to late Iron Age). The assemblage is in mixed condition but generally abraded with a smaller number of sherds in quite good condition. The pottery has been quantified and recorded on excel database by context (included as part of the archive), and has also been quantified by date and period below (Table 144).

Ware	Date Range	Sherd number	Fabric weight (g)	% of sherd total
Prehistoric sand and flint ware	Iron Age?	1	6	0.9
Heddingham fine ware?	Mid 12 th -13 th /14 th	1	10	0.9
Grimston coarse ware	12 th -mid 13 th /14 th	5	115	4.3
Grimston glazed ware	Late 12 th -15 th /early 16 th	7	172	6.1
Late medieval transitional and early post-medieval	Late 14 th -early 17 th	19	488	16.7
Raeren stoneware	Late 15 th -early 17 th	2	60	1.7
Post-medieval red earthenware	Late 16 th -19 th	71	1598	61.7
Staffordshire marbled slip ware	Late 17 th -18 th	3	59	2.5
Creamware	Mid 18 th -late 19 th	5	36	4.3
Factory made white earthenware	Late 18 th -20 th	1	23	0.9
		115	2567	

Table 144: Quantification of post-Roman pottery by ware

The medieval pottery

The 13 medieval sherds (297g) were almost exclusively glazed Grimston ware or Grimston coarse wares with grey sandy cores and grey or brown surfaces. The exception is an oxidised sherd from Gully F3581 (L3582 Seg.A) in a fine sandy fabric consistent with Heddingham fine ware, although unusually the external surface is polished. It was associated with 3 sherds of Grimston coarse ware including a wheel made carinated bowl with hammerhead rim containing wavy line decoration. Examples of quite similar bowl forms were present at Kings Lynn (Clarke and Carter 1977, 196-7). Grimston coarse ware production probably began by the early 12th century while it seems to have gone out of use, or almost so, by the middle of the 13th century (Leah 1977, 90-1). Layer 3947 (Seg.C) produced a residual glazed Grimston strap handle, and Pit F5172 (L5173) contained part of a glazed Grimston anthropomorphic face from a decorative jug indicating a date between c. AD 1225 and 1375 (Jennings and Rogerson 1977, 116).

The later pottery

Twenty-one sherds (548g) are of late medieval transitional to early post-medieval date. The bulk of these (15; 332g) came from Pit F4054 (L4055) and include two sherds of imported Raeren stoneware suggesting a date centred on the 16th century. The majority of the assemblage accounting for nearly two thirds of the sherd total (71; 1598g) comprises post-medieval red earthenwares. Also present are post-medieval Staffordshire marbled slip ware, early modern creamware and modern factory made refined white earthenware.

5.3 The small finds

Nicholas J. Cooper

Introduction

A total of 346 individual objects (including 46 coins reported on separately and bulk accessions of iron nails) registered under 123 small finds records and 185 unregistered finds ID records were submitted for assessment, of which 32 were selected for analysis and are catalogued below by functional category following Crummy (1983).

Objects of personal adornment or dress

Brooches

A total of five brooches are represented, four of which date to the Conquest period with the fifth, a plate brooch, probably dating to the 2nd century.

Colchester one piece brooches

- 1) SF67 (F1460; L1462) Roman Sub-Phase 3 (Fig. 191). Cu alloy. Complete brooch. Bow of ovoid section tapering to a point with catch plate perforated with three rectangular slots. The upper bow has a smooth curve rather than a sharp bend and the wings are plain. The chord of the six-coiled spring is held by a forward-facing hook which is short. Length 57mm.
- 2) SF37 US. Cu alloy (Fig. 191). Complete bow, and wings; eight-coiled spring and catch plate damaged and pin missing. Bow of ovoid section tapering to a point; the angle of the upper bow is sharper than on SF67 above, and the lower bow straighter. The chord of the spring is held by forward-facing hook which is short. Length 72mm.
- 3) SF36 (F3212; L3213) Roman Sub-Phase 2. Cu alloy. Lower part of -like bow of plano-convex section with triangular perforated catch plate with one D-shaped and one circular perforation. Preserved length 38mm.
- 4) SF103 US. Cu alloy. Length of bow only with part of perforated catch plate. Narrow bow is of oval section transversely, tapering to a circular section in the lower half. Upper part of bow decorated with a mid-line ridge terminating with a series of transverse mouldings above and below a cross-hatched zone on

the central section. Upper bow has a sharp curve, indicating that it is a Colchester type. Preserved length 64mm.

All these brooches belong to the tradition of forged one piece brooches common in the South-East in the decades before the Conquest and in the immediate post-Conquest period (Mackreth 2011, 36; Olivier 1988, 42-4). Three of them are undecorated and the only system of subdividing them relies on the method of perforating the plate with one example (SF67) of subgroup b with squared holes, and one (SF36) of subgroup c with circular holes. Whilst Mackreth cites examples of subgroup b from pre-Conquest deposits from sites such as Braughing (2011, 38), their occurrence in both Phases 2 and 3 at the King Harry Lane Cemetery at St Albans suggests a date spanning the Conquest (Mackreth 2011, appendix 1). The example in subgroup c is likely to be post-Conquest (Olivier 1988, 44). The decoration on SF103 is not closely paralleled by any examples in the Mackreth corpus (2011) but the narrowness and curve of the bow and the cut out on the catch plate suggest it is from a one-piece brooch of similar date.

Repousse disc plate brooch

- 5) SF47 (F1886; L1887) Roman Sub-Phase 2. Cu alloy. Complete sheet disc with axis lugs and part of hinged pin, now detached, together with catch plate; both set off centre on the back of the plate. Front of plate has traces of resin-like setting, most of which is now detached. Diameter 30mm.

Unfortunately, there is no design discernible on the fragments of detached repousse setting. Such plate brooches, of British manufacture, would have been decorated by impressing a design into the soft resin layer using a die, and applying to the front of the plate. A range of designs are known from the Mackreth corpus (2011 vol.2, 107, plate 104) including military scenes and triskele motifs and the disc diameter seems to be about average. Such brooches are not closely dated but a 2nd century date is most likely (Mackreth 2011, vol.1, 154-5) and fits with the phase attribution.

Hairpins

Two hairpins in copper alloy and two of bone are represented in the assemblage.

Copper alloy

- 6) SF71 (F2695; L2697) Roman Sub-Phase 5 (Fig. 191). Cu alloy. Complete hairpin, slightly bent, with biconical head and a narrow tapering shaft belonging to Cool's Group 10a (1990). The upper cone of the head is decorated with three radiating incised lines, between which are pairs of oblique incisions. Length 102mm.

This pin is very similar in design to one from Cirencester (Viner 1998, 313, fig. 188.5) dating to the later 1st or early 2nd century and one from Colchester (Crummy 1983, 30, fig. 31.500). Most significantly, three very similar pins, all with tripartite designs on the head were votive deposits at the Roman temple at Harlow (France and Gobel 1985, 84-5, fig. 42.27-9).

- 7) (F5061; L5062) Roman Sub-Phase 6. Cu alloy. Head and most of shaft of hairpin; lower shaft missing. Head takes the form of small, dome-shaped disc, wider than the shaft, with two transverse grooves at the top of the shaft. Incomplete length 60mm.

This is identical to an example from the King Harry Lane settlement at St Albans (Johns 1989, 23, fig. 13.73). The tapering shaft indicates a probable 2nd century date.

Bone

- 8) (L3609) Roman Sub-Phase 2. Bone. Head and upper shaft of Crummy Type 1 hairpin, with plain, slightly faceted, conical head and tapering shaft. Preserved length 61mm.

Together with Crummy's Type 2 pins, Type 1, with its long, tapering shaft is the standard early Roman bone pin form dating from the Flavian to the end of the 2nd century, although it is possible that Type 1 does carry on into the later Roman period (Crummy 1983, 20, fig. 17.122).

- 9) SF20 (F1925; L1926 Seg.E) Roman Sub-Phase 7 (Fig. 191). Bone. Complete hairpin of Crummy Type 3 with 'spherical' head, flush with the shaft on two sides and shaft is swollen. Shaft polished. Length 94mm.

This is the most common later Roman bone pin type with a swollen shaft and in this case the spherical head is flattened on two sides in a similar way to an example from Colchester; the type is likely to develop c. AD 200 and carry on through the 3rd and into the 4th century (Crummy 1983, 21, fig. 19.243).

Finger rings

Two copper alloy rings were recovered, one (SF121) is certainly a finger ring and the second (SF117) may have another function.

- 10) SF121 (F3743; L3745) Roman Sub-Phase 3. Cu alloy. Complete hoop with narrow profile with D-section. Internal diameter 15mm. External surface decorated with continuous transverse grooves identical to those on an example from Colchester which was unfortunately unstratified, although rings are most common in the later Roman period (Crummy 1983, 49, fig. 50.1770).
- 11) SF117 US. Cu alloy. Complete plain hoop of lozenge-shaped section, heavily worn around one part of the circumference to a rounded profile. Internal diameter 12mm.

The heavy appearance and small diameter may preclude its (SF117) function as a finger ring, and although exaggerated wear on a part of the hoop could occur through such use, it is perhaps more likely due to continuous suspension of another metal object. Two rings with lozenge-shaped sections, of slightly larger size from Colchester, and without apparent wear, were identified as possibly belonging to Late Roman military belt fittings (Crummy 1983, 139, fig. 162.4253-4).

Toilet instruments

Three items belong to this category, one a multi-functional spoon probe and two examples of nail cleaners which would have been suspended on a chatelaine as part of a toilet set.

- 12) SF135 (F4550; L4551) Roman Sub-Phase 6. Cu alloy. Cast. Complete but extremely bent spoon probe (*cyathiscomeles*) with long, flaring spoon bowl and swollen 'cotton bud' terminal. Transverse 'bead and reel' mouldings towards each end of an otherwise plain and slender handle. Original length 115mm.

Such instruments were probably used in a variety of surgical or toiletry procedures such as the application or removal of ointments or make-up. This is similar to a number of examples from Colchester (Crummy 1983, 60, fig. 65.1929-31).

- 13) F1992=2950=2590; L2591) Roman Sub-Phase 4. Copper alloy. Complete but bent nail cleaner element of Crummy's Type 2a from a toilet set, with plain, shouldered, leaf-shaped blade tapering to a two-pronged terminal and a suspension loop set transversely to the blade. Original length 44mm.
- 14) US. Copper alloy. Incomplete but similar and larger nail cleaner element lacking tip of blade and suspension loop which would appear to have been flush with the blade. Shouldered blade undecorated. Remaining length 57mm.

These are relatively common finds and a similar plain example with transverse loop came from Colchester, likely to be of later 1st or 2nd century date (Crummy 1983, 58, fig. 62.1874).

Textiles

Spinning

- 15) SF70 (F2695; L2696) Roman Sub-Phase 5 (Fig. 191). Shale spindle-whorl of biconical form, with flattened upper and lower surfaces. Straight-sided perforation, dark brown surfaces highly polished. Diameter 34mm; height 16mm, width of perforation 5mm.

Shale spindle whorls are manufactured from the Kimmeridge Shale in Dorset and Iron Age examples are known from Danebury (Laws 1991, 368, fig. 7.40.4.13), although Roman period examples are more common made at production sites such as Ower in the Isle of Purbeck (Sunter and Woodward 1987, 108, fig. 58.276-7).

- 16) SF107 (F3188; L3190 Seg.B) Roman Sub-Phase 5. Bone spindle-whorl of conical form manufactured from the head of a humerus from a large domesticated. Top surface flattened around straight sided perforation. Original bone surface lost; mainly cancellous tissue visible. Diameter 37mm; height 19mm; width of perforation 9mm.

Most Roman period spindle-whorls are manufactured from reused pot sherds, so to find two in these materials is interesting. The bone one made from a humeral head may be Iron Age in date as there is a similar example from Danebury (Cunliffe and Poole 1991, 366, fig. 7.39, 3.369). Otherwise, humeral heads are not generally used for spindle whorls until the Middle Saxon period and are hemispherical rather than conical in shape, so such a date seems unlikely in this case.

Weaving

- 17) SF133 (F4435; L4436 Seg.B) Roman Sub-Phase 1. Bone awl or weaving tool manufactured possibly from a horse or cattle long bone. Wide end has a single perforation. Object tapers to a point and all surfaces, apart from around the perforation, are highly polished, with a particularly worn area midway along the length. Length 133mm.

These are relatively common finds in the Late Iron Age from sites such as Danebury usually manufactured from sheep long bones and probably had a range of functions (Cunliffe and Poole 1991, 359, fig. 7.33, 3.316). The high polish on this example suggests continual contact with threads and so a function as a weaving shuttle or a pin beater, are most likely.

Household objects

Whetstones

Fragments of three whetstones and another stone perhaps used for sharpening were recovered. All are manufactured from a light grey, fine-grained sandstone and sources may include Kent and Lincolnshire with a similar assemblage from Colchester (Crummy 1983, 111, fig. 114.2966 and 2969).

- 18) (F1846; L1847 Seg.A) Roman Sub-Phase 6. Sandstone. Short broken length of whetstone with near-original rectangular section. Broken length 72mm; width 28mm; thickness 20mm.
- 19) ID329 (F3188; L3189 Seg.B) Roman Sub-Phase 5. Sandstone. Short broken length of whetstone, heavily worn with oval section. Broken length 52mm; width 23mm; thickness 15mm.
- 20) SF112 (F3516; L3517) Roman Sub-Phase 3. Sandstone. Tapering broken length of whetstone of sub-rectangular section, split lengthways into two fragments. Broken length 110mm; width 20mm; thickness 16mm.
- 21) SF106 (F2206; L2207) Roman Sub-Phase 5. Sandstone. Sub-rectangular fragment of a very fine, slightly micaceous, sandstone with rounded edges, and very smooth central groove on upper surface. Length 65mm; width 90mm; thickness 35mm.

Quernstones

Mayen lava

Substantial fragments from four different Mayen lava quern elements (two upper stones and two lower stones), imported from Germany, were recovered. A fragment from the circumference of another upper stone came from Roman Sub-Phase 6 Ditch F4106 (=4250; L4251 Seg.B) (ID404), while a similar unstratified fragment was also found (ID413). Two other small chips came from Roman Sub-Phase 6 Ditches F1727 (L1728 Seg.B) (ID330) and F4248 (L4249 Seg.B).

- 22) SF130 (F3599; L3600) Roman Sub-Phase 6. Fragment of lower stone in Mayen lava. Skirt dressed with vertical grooving. Part of central perforation for iron spindle preserved. Diameter 400mm; 35% of circumference preserved.
- 23) ID401 (F2255=3612; L2256 Seg.E) Roman Sub-Phase 6. Fragment of lower stone in Mayen lava. Skirt dressed with vertical grooving. Much more worn than SF130 (above). Part of central perforation for iron spindle preserved. Diameter 400mm; 25% of circumference preserved.
- 24) ID402 (F3272; L3273) Roman Sub-Phase 1. Fragment of upper stone in Mayen lava. Skirt decorated with vertical tooling and the upper surface with oblique tooling marks. Central perforation damaged. Diameter 380mm; 45% of circumference preserved.
- 25) ID400 (F2532; L2533) Roman Sub-Phase 5. Fragment of upper stone in Mayen lava. Skirt decorated with vertical tooling and the upper surface with oblique tooling marks. Diameter 420mm; 15% of circumference preserved.

Hertfordshire Puddingstone

Only a single fragment of this distinctive regional quern type was recovered.

- 26) ID410 (F2255=3612; L2256 Seg.A) Roman Sub-Phase 6. Plano-convex fragment from edge of typical bun-shaped upper stone in Puddingstone with worn lower surface. Circumference damaged. Thickness 92mm.

Gritstone

One diagnostic fragment of a rotary quern in a coarse sandstone or Gritstone was recovered alongside a number of other fragments of coarse sandstone exhibiting evidence of a worn grinding surface. These fragments were from Roman Sub-Phase 4 Pits F3766 (L3768 (ID405) and L3769 (ID406)) and Ditch F3376 (L3377 Seg.A (ID420)), Roman Sub-Phase 5 Pits F2695 (L2697 (ID409)) and F4467 (L4468 Seg.A (ID414)), Roman Sub-Phase 6 Pit F3599 (L3600 Seg.D (ID412)) and Ditch F4377 (=4581; L4378 (ID411)) and Roman Sub-Phase 7 Layer L3354 TPG (ID408). A single residual fragment was also recovered from the fill/ packing (L4085) of Period III Posthole F4083 (ID407). The source of these coarse sandstones is uncertain but the Derbyshire Millstone Grit is most likely.

- 27) SF105 (F3201; L3202 Seg.B) Roman Sub-Phase 1. Fragment of upper stone in a light grey coarse sandstone grit. Very worn, with traces of tooling on upper surface. Estimated diameter 400mm; 15% of diameter preserved.

The assemblage of querns, fragmentary as it is, is interesting in terms of the sources represented. The numbers of imported lava querns in such a small sample is surprising and similar to Colchester where their atypical primacy, compared to other settlements in the Trinovantean territory was noted (Buckley and Major 1983, 76). The site may therefore have been receiving these imports via Colchester. In contrast, given the location of the site at the heart of their distribution, more examples of Hertfordshire Puddingstone querns might have been expected.

Glass vessels

Five fragments of blue-green Roman vessel glass were recovered, all of which derive from Early Roman cast bottle forms of later 1st or 2nd century date. Notable is the top of a handle, and another miscellaneous body fragment (ID334) found in Roman Sub-Phase Pit F1854 (L1856 Seg.B), deriving from a square bottle form (Price and Cottam 1998, 194, fig. 89). Flat body fragments from similar bottles derived from Roman Sub-Phase 3 Ditch F1707 (L1708 Seg.L) (ID336), Roman Sub-Phase 4 Ditch F1796 (L1797 Seg.A) (ID337) and unphased Gully F2259 (L2260) (ID335).

Weighing

Amongst the miscellaneous offcuts and droplet waste, two objects of lead appear to have been deliberately shaped to act as weights, though not necessarily to provide measured weights.

- 28) SF39 (F3172; L3173) Roman Sub-Phase 2. Lead formed into a cone. Weight 38g. No evidence for suspension loop.
- 29) SF54 (F2567=2919=3150; L3151) Roman Sub-Phase 4. Length of lead looped round to form ring for suspension. Weight 48g.

Tools

Iron knives

- 30) SF128 US (Fig. 191). Iron and antler. Antler-handled knife in three pieces. Handle made from an antler tine with pointed end removed and much of surface removed. Core has been hollowed out from the pointed end to accommodate a tapering tang which the x-ray shows extends the entire length and through wide end where the tip is then split and lapped over to hold the handle in place. First part of the blade, which joins the tapered handle, is damaged but the lower two thirds shows a straight edged blade with a straight back, flush with the tang, which angles down to meet the cutting edge terminating in a rounded point, the shape conforming to Manning's Type 17 (Manning 1985, 116, fig. 29). Length of complete handle 70mm; length of blade 135mm.

A similar tanged antler handle comes from Colchester, although the tang doesn't go all the way through (Crummy 1983, 107, fig. 110.2916).

- 31) SF8 (F1299; L1301) Roman Sub-Phase 6. Iron. Small tanged knife in two pieces. X-ray shows tang bent underneath to meet the heel of the blade. Manning Type 13 with straight edged blade and down curving back. Original length 120mm.
- 32) SF27 (F1919; L1920) Roman Sub-Phase 6. Iron. Part of blade with straight back continuous with the tang belonging to Manning's Type 11a (1985, 109, fig. 28). Preserved length 94mm.

Transport

Bridle

- 33) ID200 (L3609 Seg.C) Roman Sub-Phase 2. Iron. In five pieces. X-ray shows parts of two rings joined by a straight section and four other ring fragments which are not clearly joining, one of which has a looped end. Diameter of rings 80mm.

The linked rings could be the remains of a snaffle bit from a bridle (Manning 1985, 66, plate 28) and Iron Age examples are known from Danebury (Cunliffe and Poole 1991, 352, fig.7.19, 2.294). The looped end on the separate ring fragment is similar to that on the shackles illustrated by Manning (1985, 82, figs. 21 and 22) or instead perhaps a loop spur (Manning 1985, 69, plate 29). Unfortunately the pieces are too poorly preserved to be certain of the identification.

Fittings

Copper alloy sheet fittings

- 34) SF34 (F2586; L2588) Period III. Cu alloy. Circular convex cast fitting with concentric grooves surrounding a central perforation. Diameter 28mm; width of perforation 4mm. Most likely to be a boss or draw escutcheon from a box or piece of furniture, the perforation perhaps accommodating the shaft of a ring or drop handle fitting.
- 35) SF91 (F3441; L3556) Roman Sub-Phase 5. Cu alloy. Torn, thin, fragment from a circular, slightly convex, sheet fitting with concentric grooved decoration created by impressing the sheet. Approximate diameter represented 70mm; length of torn fragment 18mm.
- 36) SF136 (F5086; L5087) Roman Sub-Phase 5. Cu alloy. Torn fragment of thin sheet with one straight edge. Length of straight edge 18mm.
- 37) SF48 (F3172; L3173) Roman Sub-Phase 2. Cu alloy. Torn fragment of thin sheet folded over. Length of fragment 21mm.

- 38) SF33 (F2586; L2588) Period III. Cu alloy. Domed stud with integral tapering shaft, the lower part of which missing. Diameter 12mm.

SF33 is likely to be of Roman date, even if residual in this context, as relatively common finds and probably used to adorn or upholster furniture. SF34 (above) and two modern buttons were recovered from the same context.

Iron structural fittings

- 39) ID201 (F1705; L1706 Seg.A) Roman Sub-Phase 2. Iron. X-ray shows five fragments comprising length of iron bar of rectangular section with perforation mid-way along length from which projects a thinner tapering iron strip at 45 degrees. The bases of two other angled projections are preserved at equal distances either side and there is another tapering iron spike detached. Additionally there are three fragments with perforations, one of which appears to be from the end of a hinge, and may not all belong to the same fitting. Although very fragmentary the large bar and projections are similar to the window grille illustrated by Manning which would have formed a lattice of iron bars with spiked projection guarding the voids (Manning 1985, 128, plate 60 R17 and 18). If not part of the same fitting the hinge end could belong to a door to which the grille was also integrated. Length of iron bar 245mm; width 25mm; thickness 7mm.
- 40) ID293 (F4483; L4484 Seg.B) Roman Sub-Phase 6. Iron double spiked loop. Length 80mm. Used as an attachment, fixed through timber planking for example. Manning illustrates a number from Hod Hill (Manning 1985, 130, plate 61. R39) and there is another from Colchester (Crummey 1983, 119, fig. 126.4065).

Nails

A total of 194 nails were recovered across the site. All belong to Manning's Type 1 (Manning 1985, 134, fig. 32) the standard nail type used in timber construction with a flat head (conical on larger ones) and a tapering square sectioned shaft. Complete examples include SF12 from Roman Sub-Phase 2 Pit F1474 (L1475), ID202 from Roman Sub-Phase 4 Pit F1988 (L1990) and SF27 from Roman Sub-Phase 6 Ditch F1919 (L1920 Seg. C), all at 70mm in length and represent the best examples of the commonest small nails; the shortest group within Manning's Type 1B (40-70mm), and the most prolific in the hoard from the demolition of the legionary fortress at Inchtuthil (Manning 1985, 134). There are some longer examples including ID267 from Roman Sub-Phase 3 Ditch F3496 (L3497), ID207 from Roman Sub-Phase 1 Gully F3201 (L3202) at 100mm and ID251 from Roman Sub-Phase 3 Gully F2378 (L2379) at 150mm which would belong to the lower end of Manning's less common subgroup Type 1A, but no conical heads are present here. Other nails from phased contexts include SF122 from Roman Sub-Phase 2 Spread L3716 and SF51 from Roman Sub-Phase 3 Pit F3228 (L3233). Notable groupings of nail fragments come from Roman Sub-Phase 4 Pit F1988 (L1990), comprising about 20 examples, and Roman Sub-Phase 3 Ditch F2322 (=3236=3603; L3237) which contained 6 examples.

Industrial Waste

Working of iron

The assessed finds assemblage included a very small quantity of vesicular fayalite, iron hearth slag (165g), recovered from Roman Sub-Phase 5 Gully F3801 (L3802 Seg.B) (ID331) and a single lump (SF50; 25g) from Roman Sub-Phase 4 Gully F3154 (L3155), indicating small-scale ironworking (smithing) in the vicinity. The majority of slag from the site is reported separately (see Newton this report).

Working of lead

Small pieces of lead scrap and droplet waste with a total weight of 370g were recovered from the following features/ contexts: Roman Sub-Phase 2 Gullies F3172 (L3173; SF52) and F1999 (L3210; SF42), Layer L3609 Seg.D (ID332) and Pit F3676 (L3684; SF123), Roman Sub-Phase 3 Ditch F2322 (=3236=3603; L3237; SFs 43 and 49) and Gully F3238 (L3239; SF55) and Roman Sub-Phase 6 Gully F3184 (L3185; SF40), with SFs 58, 66 and 118 unstratified. This probably represents small-scale working of lead perhaps during constructional or repair activities.

5.4 The coins

John A. Davies

Roman coin catalogue

1	SF82 Trajan Obv Illegible Rev [SPQR OPTIMO PRINCIPI; SC] As BMC 3: 948	GS N13 <i>Dupondius</i> Rome	Context L2315 (F2314=3663) AD 104 -111
2	SF62 Hadrian Obv [IMP CAES]AR TRAIAN HADRIANVS [AVG] Rev PM TR P COS III RIC 2: 63	GS P16 <i>Denarius</i> Rome	Context - AD 119-38
3	SF65 Antoninus Pius Obv ANTONINVS AVG PIVS PP TR P XVII Rev COS III; Fortuna RIC 3: 232	GS P16 <i>Denarius</i> Rome	Context L1730 (F1729=1760) AD 153-54
4	SF108 Antoninus Pius Obv ANTONINVS AVG PIUS PP TR P XXIII Rev LIBERALITAS AVG VIII COS III RIC 3: 311	GS - <i>Denarius</i> Rome	Context - AD 160-61

- | | | | |
|----|--|--|------------------------------------|
| 5 | SF60
Marcus Aurelius
Obv IMP M AVREL ANTONINVS AVG
Rev PROV DEOR TRP XVI COS III; Providentia
RIC 3: 48 | GS P16
<i>Denarius</i> | Context L2000 (F1999)
AD 161-62 |
| 6 | SF63
Lucius Verus
Obv [L VERVS AVG ARM] PARTH MAX
Rev TRP VII IMP IIII [CO]S III; Aequitas
BMC 4: 447 | GS P16
<i>Denarius</i> | Context L1987 (F1986)
AD 166-67 |
| 7 | SF59
Lucilla
Obv LVCILLA AVGVSTA
Rev CONCORDIA
RIC 3: 759 | GS P16
<i>Denarius</i> | Context L1920 (F1999)
AD 176-80 |
| 8 | SF120
Gallienus
Obv [GAL]LIEN[VS AVG]
Rev [DIANAE CONS AVG]; antelope walking l.
As RIC 5: 180 | GS T16
<i>Antoninianus</i>
Rome | Context L3175 (F3174)
AD 260-8 |
| 9 | SF99
Claudius II
Obv IMP CLAVDIVS PF AVG
Rev Illegible. Female figure l., holding cornucopiae | GS -
<i>Antoninianus</i> | Context -
AD 268-70 |
| 10 | SF 44
Tetricus I
Obv [IMP C G] P ESV TE[TRICVS AVG]
Rev PAX [AVG] | GS R16
<i>Antoninianus</i> | Context -
AD 270-4 |
| 11 | SF45
Tetricus I
Obv Illegible
Rev [PAX AVG]
As Elmer 775 | GS R16
<i>Antoninianus</i>
Cologne | Context L3280 (F3279)
AD 270-4 |
| 12 | SF101
Tetricus I
Obv Illegible and reduced flan
Rev Illegible. Figure of Laetitia
Elmer 786/787 | GS -
<i>Antoninianus</i>
Trier | Context -
AD 270-4 |

- | | | | |
|----|--|--|------------------------------------|
| 13 | SF97
Tetricus II
Obv [C PIV ESV TETRICVS CAES]
Rev [PRINC IVVENT]
Elmer 781 | GS Q10
<i>Antoninianus</i>
Cologne | Context L3369 (F3368)
AD 270-4 |
| 14 | SF46
Barbarous radiate minim
Obv [DIVO CLAUDIO]; no legend. Clear portrait.
Rev Altar. Simple linear engraving.
13mm diam | GS R16 | Context L1708 (F1707)
AD 270-84 |
| 15 | SF90
Barbarous radiate
Obv Illegible
Rev Virtus pin figure. ----G
17mm diam | GS N10 | Context -
AD 270-84 |
| 16 | SF124
Barbarous radiate
Obv Tetricus II; --RIIC--
Rev Spes figure
15mm diam | GS - | Context -
AD 270-84 |
| 17 | SF77
Barbarous radiate
Obv Tetricus II. Very faint strike.
Rev C----L; Spes figure
16mm diam | GS N14 | Context L2321
AD 270-84 |
| 18 | SF75
Barbarous radiate minim
Obv No lettering
Rev Spes holding flower
10mm diam | GS N14 | Context L2058 (F2057)
AD 270-84 |
| 19 | SF88
Barbarous radiate minim
Obv Basic head
Rev Ewer
10mm diam | GS N10 | Context L3434 (F3385)
AD 270-84 |
| 20 | SF76
Barbarous radiate minim
Obv Faint impression of head
Rev Illegible
10mm diam | GS N14 | Context L2058 (F2057)
AD 270-84 |

21	SF79 Carausius Obv IMP CARAVSIVS P AVG Rev PAX AVG; transverse sceptre 24mm diam	GS M13 <i>Antoninianus</i>	Context L2486 (F2485) AD 287-93
22	SF64 Carausius Obv Illegible. Good portrait. Rev [SALVS AVG] 21mm diam	GS Q15 <i>Antoninianus</i>	Context - AD 287-93
23	SF100 Carausius Obv Illegible Rev Illegible 24mm diam	GS - <i>Antoninianus</i>	Context - AD 287-93
24	SF35 House of Constantine Obv No lettering on fragment Rev [SOLI I]NVIC[TO COMITI]	GS R20 Triangular fragment	Context L3412 (F2586) AD 309-10
25	SF109 House of Constantine Obv [CONSTANTINOPOLIS] Rev Victory on prow RIC 7: 543	GS - follis Trier	Context - AD 332-33
26	SF73 House of Constantine Obv CON --- Rev Illegible	GS N14 AE3	Context L1431 (1429=1814) AD 330-48
27	SF83 House of Valentinian Obv Illegible Rev [GLORIA ROMANORVM]	GS M11 AE3	Context L3355 AD 364-78
28	SF84 House of Valentinian Obv Illegible Rev [GLORIA ROMANORVM]	GS N10 AE3	Context L3377 (F3376) AD 364-78
29	SF96 House of Valentinian Obv Illegible Rev [GLORIA ROMANORVM]	GS N11 AE3	Context L3434 (F3385) AD 364-78

30	SF32	GS P19	Context L1712 (F1711)
	House of Valentinian	AE3	AD 364-78
	Obv Illegible		
	Rev [SECVRITAS REIPVBLICAE]		
31	SF61	GS P16	Context L1728 (F1727)
	House of Valentinian	AE3	AD 364-78
	Obv Illegible		
	Rev [SECVRITAS REIPVBLICAE]		
32	SF86	GS N10	Context -
	House of Valentinian	AE3	AD 364-78
	Obv Illegible		
	Rev [SECVRITAS REIPVBLICAE]		
33	SF98	GS Q10	Context L3369 (F3368)
	House of Valentinian	AE3	AD 364-78
	Obv Illegible		
	Rev [SECVRITAS REIPVBLICAE]		
34	SF93	GS N10	Context L3434 (F3385)
	House of Valentinian	AE3	AD 364-78
	Obv Illegible		
	Rev [SECVRITAS REIPVBLICAE]		
35	SF89	GS N10	Context L3434 (F3385)
	House of Valentinian	AE3	AD 364-78
	Obv Illegible		
	Rev [SECVRITAS REIPVBLICAE]		
36	SF68	GS P16	Context L1859 (F1858)
	Gratian	AE3	AD 367-75
	Obv [DN GRATIANVS AVGG AVG]		
	Rev [GLORIA NOVI SAECVLI]		
	RIC 9: 15	Arles	
37	SF87	GS N10	Context -
	Gratian	AE3	AD 367-75
	Obv [DN GRATIANVS AVGG AVG]		
	Rev [GLORIA NOVI SAECVLI]		
	RIC 9: 15	Arles mm TCON	
38	SF80	GS M13	Context -
	House of Theodosius	AE4	AD 388-95
	Obv Illegible		
	Rev [VICTORIA AVGGG]		
39	SF111	GS Q8	Context -
	House of Theodosius	AE4	AD 388-95
	Obv Illegible		
	Rev [VICTORIA AVGGG]		

40	SF38 House of Theodosius Obv Illegible Rev [VICTORIA AVGGG]	GS P18 AE4	Context - AD 388-95
41	SF72 House of Theodosius Obv Illegible Rev [VICTORIA AVGGG]	GS N14 AE4	Context L1822 (F1821) AD 388-95
42	SF113 House of Theodosius Obv Illegible Rev [VICTORIA AVGGG]	GS Q7 AE4	Context L3360 (F3358) AD 388-95
43	SF95 Illegible Obv Illegible Rev Illegible	GS N10 AE3	Context - AD 330-78
44	SF41 Illegible Obv Illegible Rev Illegible	GS R16 AE4	Context L3280 (F3279) AD 354-95
45	SF85 Illegible Obv Illegible Rev Illegible	GS N10 AE4	Context L3355 AD 341-95

Post-Roman coin catalogue

46	SF65 Edward I Obv EDWAR ANGL DN[S HYB] Rev [CIVIT]AS DVR[EME] Class X	GS P16 Penny Durham	Context L1730 (F1729=1760) 1302-10
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Narrative

Forty-six coins were recovered from the former Smoke House Inn, Beck Row, of which 45 are Roman and just one is post-Roman. The Roman coins have generally suffered badly from corrosion and the legibility is not good in most cases. There are very few fully legible examples. The chronological range is from the reign of Trajan (AD 98-117) to the final years of Roman Britain, at the end of the 4th century.

The early issue of Trajan is a *dupondius* of the years AD 104-111. The coin sequence then continues with six silver *denarii* of the 2nd century. Five of these are clustered within the period of the Antonine emperors. A slightly earlier example, which is an issue of Hadrian, is more worn than the others. Such a cluster of silver coins is suggestive of a hoard or purse group, which may have been lost or buried at the time of Lucilla (eldest daughter of Marcus Aurelius), in whose name the latest was struck. There is then a gap in the coin list until the years of the mid-third century.

The assemblage contains a substantial group of later 3rd century coins. These begin with a radiate issue of Gallienus (AD 260-8). There are four *antoniniani* of the Gallic Empire. One of these (SF44), struck under the emperor Tetricus I, is unusual in having an obverse legend associated with the mint of Trier but combined with a reverse type issued from the mint of Cologne. There are then seven irregular *antoniniani*, or 'barbarous radiates'. The 3rd century issues end with three *antoniniani* of Carausius. The coinage of that emperor could vary in quality but these are all attractive issues, with good circular large flans, although they are all corroded. Legends and details are largely missing but all three carry fine portraits.

The remaining 22, representing virtually half of the coins, are all 4th-century issues. Given the chronological range of the assemblage, it is surprising that there are only two coins of the mid-Constantinian period (from AD 330-48), which are normally dominant among 4th-century site finds. There is then a major grouping representing the later 4th century, with eleven large *aes* of the House of Valentinian (AD 364-78). Unfortunately, their poor legibility does not reveal individual emperors or mint marks.

The latest Roman coins present are small bronze issues of the House of Theodosius, struck between AD 388-95. This is a substantial presence of five late bronzes, which are not common site finds.

The Beck Row coins collectively show some very strong features. There is a presence on the site before the mid-3rd century but this is minimal and can be assigned to two interventions, which are a probable (much disturbed) silver hoard of six *denarii* and a single *dupondius*. The main site coin list begins in the years from the mid-third century and 44% of legible (non-hoard) coins date from AD 260-93. Such high percentages of radiate coins can often be recorded on both large and small town sites although this feature is uncommon in both Suffolk and Norfolk. However, the most remarkable feature of the group is the predominance of later 4th century coins. Half of the dateable (non-hoard) coins belong to the years after AD 330 and 44% to the years after 364. It is notable that the overall pattern of coin loss resembles that of the Romano-British small town of Neatham in Hampshire (Merson 1986).

The latest coin in the assemblage is a single post-Roman silver penny of Edward I from the mint of Durham, struck between AD 1302 and 1310.

5.5 The struck flint

Andrew Peachey

Excavations recovered a total of 89 pieces (1429g) of struck flint and 54 fragments (892g) of burnt flint. The technological composition of the assemblage (Table 145) indicates a mixed prehistoric chronology ranging from the Mesolithic to later Neolithic/ early Bronze Age, with implements ranging from heavily patinated long blades to a ground axe, scrapers, multi-platform cores and hammer stones. Almost the entirety of the assemblage was contained as residual material in Romano-British period features or layers, but a single core, two blades and two debitage flakes were contained in Period I (Bronze Age) pits and comprise potentially *in situ* artefacts. The preservation of the assemblage varies, with the bulk in an un-patinated condition but sparse flakes and cores ranging from slightly to heavily patinated, indicating a moderate degree of re-deposition and re-distribution of lithic material.

Implement/ Flake Type	Frequency	Weight (g)
Axe	1	170
Cores	4	328
Hammer Stones	2	246
Rod	1	18
Platform Rejuvenation Flakes	3	119
Scrapers	8	170
Other Retouched Implement	1	12
Blade/ Bladelet	7	34
Debitage	58	332
Burnt Flint	54	892
<i>Total</i>	<i>139</i>	<i>2321</i>

Table 145: Quantification of Struck Flint implement and flake types, and Burnt Flint

Methodology and terminology

The flint was quantified by fragment count and weight (g), with all data entered into a Microsoft Excel spreadsheet that will be deposited as part of the archive. Flake type (see 'Dorsal cortex,' below) or implement type, patination, colour and condition were also recorded as part of this data set, along with free-text comments.

The term 'cortex' refers to the natural weathered exterior surface of a piece of flint, and the term 'patination' to the colouration of a flaked surface exposed by human or natural agency. Dorsal cortex is categorised after Andrefsky (2005, 104, 115) with 'primary flake' referring to those with cortex covering 100% of the dorsal face; 'secondary flake' with 50-99%; 'tertiary' with 1-49% and 'un-corticated' to those with no dorsal cortex. A 'blade' is defined as an elongated flake whose length is at least twice as great as its breadth, often exhibiting parallel dorsal flake scars (a feature that can assist in the identification of broken blades that, by definition, have an indeterminate length/ breadth ratio). Terms used to describe implement and core types follow the system adopted by Healy (1988, 48-9).

Commentary on the lithic technology of the assemblage

Cores and their reduction

The four cores in the assemblage demonstrate the chronological range of the struck flint assemblage. The technologically earliest core, contained in Ditch F1727 (L1728A), comprised an exhausted cube-shaped blade core with at least three striking platforms that is typical of Mesolithic blade production. A second core, contained in Ditch F5067 (L5068) may be associated with later Mesolithic or earlier Neolithic blade production, and exhibits a single striking platform maintained by tablet removal. The remaining two cores are typical of flake cores utilised in the later Neolithic to early Bronze Age, and include a core from Period I Pit F4320 (L4321), with a further example from Gully F4069 (L4070C). Both these cores are approximately cube-shaped with at least four striking platforms, but are noticeably larger than their Mesolithic and Neolithic counterparts and appear in part to have been struck by direct percussion resulting in much more pronounced, conchoidal flake scars.

Related to the technology of the single platform blade core contained in Ditch F5067 are three platform rejuvenation flakes, contained in Ditches F1282 (L1283B), F1424 (L1425B) and Gully F4090 (L4091F). Each had been removed from a blade core, once the angle of the striking platform had become too steep, a process most common in earlier Neolithic assemblages.

Also closely associated with earlier Neolithic, as well as later Mesolithic core reduction is the use of a punch between a hammer stone and core, to diffuse percussive force that could lead to shatter and to enable greater accuracy in striking the platform. These punches may have been of 'soft' materials such as bone or antler, or 'hard' materials such as flint. The flint rod contained in Ditch F1429 (L1431L), appears to have functioned as one such 'hard' punch. It may have been formed from a blade core as the roughly cylindrical/ hexagonal section of the rod appears to have been formed by blade-like removals from all sides. However, it is the percussive wear on both ends of the rod, one of which is narrower than the other, that indicated the function of the rod. A complimentary wear pattern, comprising 2-4 narrow worn circles, on the two spherical hammer stones contained in Pits F1704 (L1739) and F1846 (L1847A) suggest they were used as medium and small sized hammer stones (Whittaker 1994, 87) in association with a rod-like punch.

The sparsely distributed debitage flakes in the assemblage reflect the seemingly diverse range of core reduction technology, with approximately 62% of the debitage flakes comprising blade-like tertiary or un-corticated flakes probably produced by late Mesolithic or earlier Neolithic flint technology. These include further flakes that are possibly platform rejuvenation or maintenance flakes, but are inconclusive. Single un-corticated blade-like debitage flakes were contained in Period I Pits F4322 (L4323) and F4977 (L4978) and comprise potentially in-situ debitage, although the isolated occurrence may suggest they were re-deposited. Approximately 22% of the debitage comprises broad, squat flakes removed by direct percussion, typical of later Neolithic to early Bronze Age technology. The remainder are typically thin with slightly irregular profiles, and include some ovoid core trimming primary flakes.

Implements and tools

The assemblage includes a single ground Neolithic axe, albeit in a poorly-preserved condition. Ditch F1729 (L1730A) contained the small, thick-butted axe, manufactured from a matt, pale grey flint (probably sourced from a glacial erratic or possibly traded from Lincolnshire). The axe exhibits a re-flaked, sharpened edge with further use damage, but much of the original ground surface of the axe has been removed by frost-cracking damage.

The assemblage includes four side scrapers and four end scrapers. Three of the side scrapers, from Pits F1219 (L1220), F4604 (L4605) and Gully F4010 (L4011A), and an end scraper from Layer L4473 were formed on blades, which suggests they were produced in the earlier Neolithic. The remaining side scraper from Pit F4054 (L4124), and end scrapers from Ditches F1139 (L1140F), F1248 (L1249B) and F3487 (L3488C) were formed on broad, squat flakes including some struck from multi-directional flake cores, indicating they were more likely produced in the later Neolithic to early Bronze Age.

The only other re-touched implement in the assemblage comprised an awl from Ditch F5071 (L5072D). The awl was formed by the application of uni-facial abrupt retouch to the lateral and bulbar edges of a broad, squat tertiary flake that is likely to have a comparable later Neolithic to early Bronze Age chronology to the similarly shaped side and end scrapers.

The final implement type in the assemblage comprises blades and bladelets. These include a single long blade (length: 90mm) with a heavily patinated finish from Ditch F1429 (L1431L) that is almost certainly of Mesolithic origin, while two bladelets from Gully F4065 (L4066C) and Ditch F5007 (L5008B) are also consistent with Mesolithic core reduction. The remaining blades, typically 40-50mm in length with parallel dorsal scars are typical of those that occur in earlier Neolithic assemblages in the region, although Mesolithic origins cannot be ruled out. Two of these blades were contained in Period I Ditch F4303 (L4531B) and Pit F4320 (L4321), but are unlikely to be of Bronze Age origin and may have been re-deposited within the prehistoric period.

Conclusions

The potential for the Breckland and fen-edge landscape to produce flint assemblage is widely recognised (i.e. Austin 1997, 9; Brown and Murphy 1997, 14; Medlycott 2011, 6, 14). This assemblage is consistent with the range of struck flint found during excavation of the Maltings (MNL 502), which included a limited range of Mesolithic, earlier Neolithic and Bronze Age struck flint cores, implements and debitage, also largely residual in Romano-British period features (Bates 2004, 45). Scatters of residual struck flint including hammer stones (i.e. Wymer 1986, 22) are relatively common on Romano-British sites in the region.

5.6 The ceramic building materials (Inc. mortar and plaster)

Andrew Peachey

Excavations recovered a total of 1490 (174688g) fragments of Roman ceramic building material (CBM), with 130 fragments of Roman mortar and plaster, and sparse fragments of post-medieval CBM as intrusive or Period III material (Table 146). The bulk of the assemblage comprises relatively highly fragmented Roman tile and brick with moderate concentrations particularly associated with Roman Sub-Phase 2 Layer L3609, Roman Sub-Phase 4 Enclosure System 1 and Roman Sub-Phase 6 Enclosure System 1. However, these groups barely have the magnitude to suggest they are directly associated with a substantial masonry structure with a ceramic roof or hypocaust in the immediate vicinity, although smaller structures, partial ceramic roofs, hearths, storage and production all remain potentially viable sources for these deposits.

Roman Sub-Phase 4 Enclosure System 1 also contained the bulk of the Roman mortar and plaster, including a range of painted fragments, while a further small group of mortar and plaster fragments were contained in Roman Sub-Phase 5 Pit F1854. This distribution of mortar and plaster, not apparently associated with a substantial structure, may support the theory that the CBM and associated building materials were imported to (or through) the site as hardcore or a commodity during episodes of activity, rather than directly associated with a building.

Period & Sub-Phase	Roman CBM		Roman mortar & plaster		Post-medieval CBM	
	F	W	F	W	W	W
Period I	3	319	0	0	0	0
Period II: Roman Sub-Phase 1	22	1746	1	6	0	0
Period II: Roman Sub-Phase 2	217	35195	2	189	2	489
Period II: Roman Sub-Phase 3	254	27872	4	244	1	81
Period II: Roman Sub-Phase 4	454	41283	78	3263	1	101
Period II: Roman Sub-Phase 5	109	15138	43	1379	0	0
Period II: Roman Sub-Phase 6	348	45871	2	11	39	4867
Period II: Roman Sub-Phase 7	26	3382	0	0	0	0
Period III	39	2077	0	0	23	9239
Un-phased/Un-stratified	18	1805	0	0	7	9212
Total	1490	174688	130	5092	73	23989

Table 146: Quantification of CBM by fragment count (F) and weight (W, in grams) in Period and sub-phase groups

Methodology

The CBM was quantified by fragment count and weight with fabrics examined at x20 magnification and all data entered into a Microsoft Excel spreadsheet that will be deposited as part of the archive. Roman CBM forms were identified using the conventions defined by Brodrick (1987).

Roman CBM fabric descriptions

Four fabric types were recorded in the Roman CBM assemblage. The most common type: Fabric 1, accounts for c. 97% of the assemblage by fragment count and weight (Table 147). It was almost certainly produced locally to the site, although oxidised, sand-tempered fabrics such as this are relatively ubiquitous on Roman sites in East Anglia. All other fabric types are rare; with the sparse chalk inclusions in Fabrics 2-3 suggesting they may have been produced to the south of Beck Row,

between the eastern Fen Edge and central Suffolk, where pottery fabrics tend to exhibit a similar range of inclusions. In contrast, the shell-tempered Fabric 4 was probably produced at the Harrold kilns in Bedfordshire (Brown 1994, 79-83) and may have been imported with shell-tempered pottery vessels to the site.

- Fabric 1 Typically occurs in dull oxidised tones ranging from orange-red to mid brown grey. Each tile is usually consistent in colour with the core slightly darker than the surfaces. Inclusions comprise common poorly-moderately sorted quartz (0.1-0.5mm), sparse red iron rich grains and flint (0.25-3mm, occasionally larger) and sparse fine mica. Very hard fired with a slightly abrasive to powdery feel.
- Fabric 2 Pale yellow to cream-brown throughout. Inclusions comprise sparse quartz, sparse calcareous grains/voids (0.5-3mm) and sparse red grog/clay pellets (0.5-10mm). Hard-fired with a slightly abrasive feel
- Fabric 3 Pale orange-red, sometimes with a reduced grey core. Inclusions comprise sparse quartz (0.1-0.5mm), sparse red iron rich grains (0.5-7mm) and sparse rounded chalk (1-5mm).
- Fabric 4 Mid to dark red brown. Inclusions comprise common, poorly-sorted plate-like shell (0.5-7mm)

Fabric Group	Tegula Roof tile		Other Roman Tile		Roman Brick		Total	
	F	W	F	W	F	W	F	W
Fabric 1	1170	133519	235	20959	42	14123	1447	168601
Fabric 2	7	338	0	0	3	1091	10	1429
Fabric 3	10	1188	0	0	14	2558	24	3746
Fabric 4	9	912	0	0	0	0	9	912
Total	1196	135957	235	20959	59	17772	1490	174688

Table 147: Quantification of Roman CBM fabric types

Roman CBM form types

The dominant form type in the assemblage is tegula roof tile, which accounts for c. 80% of the assemblage by fragment count (c. 78% by weight), although this statistic may be biased by the fragmentary nature and lack of diagnostic sherds in the assemblage. Fabric 1 includes 204 fragments with either a flange or a cutaway characteristic of tegula roof tile, while the remaining fragments are limited to 20-30mm thick flat tile, which may mask the presence of some fragments of box flue tile although this tends to be slightly thinner. Tegula in Fabrics 2-4 are limited to fragments of flat tile of comparable thickness. Where present, the flanges of the tegula tend to have a fairly square profile, with a flat top and very steep internal angle. Cutaways were knife-cut at right angles to the tile, with upper cutaways removing the entire section of flange and lower cutaways, in section, comprising steep-angled, straight line through the outside edges of the flange and body of the tile.

Extant or re-constructible dimensions of tegula are virtually absent in the assemblage, with the concentration in Roman Sub-Phase 2 Layer L3609 including a single tile with a width of 310mm, a length greater than 280mm and a thickness of 25-20mm. If these dimensions are representative of the tegula in the assemblage, then the tegula are at the small end of the size range produced in Roman Britain, with similarly sized tegula recorded at Caistor-by-Norwich and Piddington (Brodrigg 1987, 11-12). When complete, such a tegula would weigh approximately 18kg, suggesting that the total quantity of tegula recorded in this assemblage would only equate to just under 8 complete tiles; thus highlighting the fragmentary nature of the assemblage and how incongruous the assemblage is with the presence of a

ceramic-roofed building. The one mitigating factor to this statistic, is that the any complete or substantial CBM may have been systematically robbed out after a structure was abandoned or collapsed, leaving only residual detritus, however the high degree of fragmentation may reflect that the CBM was imported as hardcore.

The other types of Roman tile in the assemblage are almost entirely comprised of low quantities of Fabric 1 imbrex roof tile. Imbrex are limited to 20mm thick fragments of curved tile, which would have been used to cap the flanged edges between interlocking tegula roof tile, but are not present in sufficient quantity to suggest they formed part of a roof on or close to the site. These are supplemented by three fragments (447g) of box flue tile: 15-50mm thick flat tile distinguished by the presence of combed key marks on one surface. The extreme rarity of recognisable box flue tile in the assemblage suggests that there was not a structure in the vicinity with a hypocaust heating system, not even associated with a single room or small bath house. Isolated box flue tile may have been incorporated into the structure of a hearth or oven, but it appears more likely these fragments were imported as incidental material with other CBM, probably as hardcore.

The presence of Roman brick in the assemblage is limited to small fragments with a thickness of 40-45mm, indicating they are probably derived from bessalis type bricks although other types cannot be discounted. The bulk of the Roman brick occurs in fabric 1 with rare fragments in Fabrics 2-3. Bessalis bricks were commonly used in the pilae of hypocausts, as bonding courses in walls, and were often incorporated in the superstructure of kilns and ovens. The latter occurrence may explain the presence of bessalis in this assemblage, but equally these fragments may have been imported like the other CBM as hardcore.

Distribution of Roman CBM in sub-phase feature groups

There is a relatively consistent distribution of low to moderate quantities of Roman CBM across the site, principally in the enclosure systems, but also including occasional layers and pits. Tables 148-151 and the associated commentary are designed to illustrate biases in this pattern which may be associated with particular episodes of deposition within the enclosure systems that may be related to function or design. Roman Sub-Phases 1, 5 and 7 are not tabulated as the quantities of CBM were too limited to have significance.

In Roman Sub-Phase 2 (Table 148), the major concentration of CBM comprises a total of 99 fragments (25318g) recovered from Layer L3609, predominantly consisting of tegula but including all types of Roman CBM in Fabric 1. The tegula includes a single fragment of intrinsic interest, exhibiting a U-shaped signature formed with two fingers; possibly representing a worker's or batch mark. Four sections were excavated through Layer L3609 with c. 14kg recovered from Seg.C, c. 7.5kg from Seg.B, c. 3kg from Seg.D and negligible quantities from Seg.A. While this suggests an un-even distribution within the layer, it also suggests that the concentration within the layer is potentially several times larger than that recovered. It is intriguing that the sample of CBM from Layer L3609 has an average fragment weight of 255.74g, compared to 162.19g for the total CBM in Roman Sub-Phase 2, and 117.24g for the total Roman CBM assemblage. Therefore do the more robust fragments in Layer L3609 suggest that they were more than simple hardcore but

may have represented a deliberate construct, such as a levelling layer or possibly even a working surface, crude floor or foundation that incorporated a secondary use for broken CBM after it was transported from a former structure, or utilising material broken during production, transit or construction and subsequently recycled.

Feature Group	Tegula Roof tile		Other Roman Tile		Roman Brick		Total	
	F	W	F	W	F	W	F	W
Enclosure system 1	3	186	0	0	0	0	3	186
Enclosure system 2	26	2212	3	140	1	549	30	2901
Enclosure system 3	48	3082	8	324	0	0	56	3406
Layers & Spreads	87	19906	10	2299	7	3345	104	25550
Other Roman Sub-Phase 2 features	13	1488	10	655	1	1009	24	3152
Total	177	26874	31	3418	9	4903	217	35195

Table 148: Distribution of Roman CBM in Roman Sub-Phase 2

The Roman CBM in Roman Sub-Phase 3 (Table 149) includes small concentrations in Enclosure Systems 1 and 3, but never exceeds c. 9.5kg. The ditches that form these enclosure systems do not contain any focal points of deposition, and the average fragment weights are low at 121.60g and 95.54g respectively, although they are close to the average for the total Roman CBM assemblage (117.24g). Therefore the Roman Sub-Phase 3 CBM may represent hardcore rubble, possibly laid down to aid drainage, or possibly as detritus from yards and activities within the enclosure systems.

Feature Group	Tegula Roof tile		Other Roman Tile		Roman Brick		Total	
	F	W	F	W	F	W	F	W
Enclosure system 1	54	4399	11	868	8	3610	73	8877
Enclosure system 2	27	3427	6	639	0	0	33	4066
Enclosure system 3	80	7700	18	1530	1	228	99	9458
Enclosure system 4	18	2805	3	57	3	356	24	3218
Other Roman Sub-Phase 3 features	19	1726	5	455	1	72	25	2253
Total	198	20057	43	3549	13	4266	254	27872

Table 149: Distribution of Roman CBM in Roman Sub-Phase 3

The largest single group of Roman CBM in the assemblage was contained in Roman Sub-Phase 4 Enclosure System 1 (Table 150), which included 15 ditches that contained CBM. Of these features, only Ditch F1370 contained more than 5kg in any segment with a total of 139 fragments (13613g) distributed between L1371 (Segs.A & B). However, the group has a very low average fragment weight of 87.04g, suggesting as with Roman Sub-Phase 3 Enclosure Systems 1 and 3, the CBM may have been deliberately distributed throughout the ditches, possibly to aid drainage or as detritus from working surfaces or stores within the enclosures, but not as a dump of building material associated with a structure.

Feature Group	Tegula Roof tile		Other Roman Tile		Roman Brick		Total	
	F	W	F	W	F	W	F	W
Enclosure system 1	345	29961	71	5341	3	1168	419	36470
Pit Cluster 2	11	1352	1	8	4	664	16	2024
Other Roman Sub-Phase 4 features	18	2135	2	89	2	565	22	2789
Total	374	33448	74	5438	9	2397	457	41283

Table 150: Distribution of Roman CBM in Roman Sub-Phase 4

Roman Sub-Phase 6 Pit F1413 (L1414) contained 140 fragments (21241g) of Roman CBM (Table 151), distributed in what appears to be, in section, a central column through the fill of the feature. This group included some of the larger fragments of tegula in the assemblage and had an average fragment weight of 151.72g, noticeably above the total assemblage average of 117.24g. This

concentration is not of sufficient size to suggest it is a demolition dump of CBM, but based on the apparent selection of larger fragments it may represent the secondary use of CBM as a packing material, either around a post or to provide a solid footing. This concentration of CBM was in close proximity to a ditch terminus and infant burial, but none of the other pits in the close vicinity contained a similar deposit. Roman Sub-Phase 6 Enclosure System 1 also included a moderate total quantity of CBM distributed through the fills of 24 ditches, with an average fragment weight of 120.67g, close to that of the total assemblage, suggesting this CBM represents scattered rubble, either distributed as hardcore or detritus similar to that in the Roman Sub-Phase 3-4 enclosure systems.

Feature Group	Tegula Roof tile		Other Roman Tile		Roman Brick		Total	
	F	W	F	W	F	W	F	W
Enclosure System 1	113	13779	17	1815	1	214	131	15808
Pit F1413	120	17153	20	4088	0	0	140	21241
Other Roman Sub-Phase 6 features	66	6499	7	497	4	1826	77	8822
Total	299	37431	44	6400	5	2040	348	45871

Table 151: Distribution of Roman CBM in Roman Sub-Phase 6

The generally highly fragmented condition and the lack of direct association with any structures dictate that the Roman CBM has a very limited potential to inform on activity on the site. However the consistent deposition of Roman CBM, probably as hardcore, may indicate that recycled CBM had an important secondary function possibly related to the stabilisation of surfaces within the enclosure or to aid drainage within the enclosure ditches. Given that the site was on the Fen Edge, where the water table fluctuated during the Roman period, it is quite conceivable efforts were made to improve the ground conditions. Alternatively, CBM may have been used as ballast in river transport vessels, subsequently off-loaded and re-cycled, thus explaining the distance between large quantities of fragmentary CBM and any evidence for a substantial building.

The only exceptions to the general distribution pattern within the site comprise Roman Sub-Phase 2 Layer L3609, which may represent the deliberate creation of a floor or levelling layer, and Roman Sub-Phase 6 Pit F1413, where CBM may have functioned as packing material. The composition of the Roman CBM, dominated by fragmentary tegula roof tile, is comparable to that recorded at the neighbouring 'Maltings' (Anderson 2004, 42) adjacent to the north of the site, albeit in significantly greater quantities but without any association with a post-built structure that may have utilised CBM in a secondary function such as hardcore or packing material. In contrast excavations adjacent to the north-east recovered only sparse Roman CBM, but with diagnostic fragments also limited to fragmentary tegula (Benfield 2011b, 64)

The Roman mortar and plaster

Excavations recovered a total of 130 fragments (5092g) of Roman mortar and plaster, including painted fragments and rare pieces of *opus signinum* (Table 152). The assemblage included two notable groups of mortar and plaster: in Roman Sub-Phase 4 Enclosure System 1 and Roman Sub-Phase 5 Pit F1854, with all other fragments very sparsely distributed.

Feature Group	Painted Mortar and Plaster		Plain Mortar and Plaster		Opus Signinum		Total	
	F	W	F	W	F	W	F	W
Roman Sub-Phase 1	1	6	0	0	0	0	1	6
Roman Sub-Phase 2 Enclosure System 3	0	0	0	0	2	189	2	189
Roman Sub-Phase 3 Enclosure System 3	2	83	2	161	0	0	4	244
Roman Sub-Phase 4 Enclosure System 1	36	579	41	2630	0	0	77	3209
Roman Sub-Phase 4 Other features	0	0	1	54	0	0	1	54
Roman Sub-Phase 5 Pit F1854	20	349	17	810	0	0	37	1159
Roman Sub-Phase 5 Other Features	0	0	2	131	4	89	6	220
Roman Sub-Phase 6	2	11	0	0	0	0	2	11
Total	61	1028	63	3786	6	278	130	5092

Table 152: Distribution of Roman mortar and plaster in Period II sub-phases and feature groups

The mortar and plaster were undifferentiated in quantification as the bulk of the almost all the plaster was adhering to fragments of mortar. The mortar comprised a coarse white mix of common poorly-sorted, sub-angular quartz (0.1-1mm), sparse rounded chalk (0.5-5mm) and occasional rounded quartzite/ flint (0.5-5mm), which appears to have been applied to walls or floor in layers between 20-40mm thick. The overlying fine white lime plaster appears to have been skimmed onto the flat surfaces if the mortar in layers between 2-4mm thick, leaving a smooth surface onto which white wash and paint could be applied.

The finished surfaces of the plaster, where white-washed, may appear slightly discoloured to a very pale-brown to yellow. Painted decoration appears to conform to a three-colour palette or red (around Munsell 10R 5/2-4/2), green (between GLEY 5/1 and 5Y 5/2) and black (often tinged red-brown). Fragments with painted surfaces are present in features from the earliest (Roman Sub-Phase 1) to the latest (Roman Sub-Phase 6) Roman occupation, most commonly with plain red surfaces but with very small sections of basic decorative schemes evident in the larger groups.

Roman Sub-Phase 4 Enclosure System 1 contained fragments of painted plaster in Ditches F1424 (=F1888), F1796 and F1929. These include, in Ditch F1929 (L1985 Seg.B) one fragment with three 10mm wide stripes, arranged red-black-red and separated by 5mm wide stripes of white paint. A comparable white stripe over red paint was recorded in Ditch F1424 (L1425 Seg.J), which also included seven fragments of white washed plaster decorated with slightly irregular c. 10mm wide 'dots' of red paint in an indistinguishable pattern. Ditch F1796 (L1797 Seg.A) included five fragments with a plain green background, while fragments with a plain red background were common in the group. However, Roman Sub-Phase 4 Enclosure System 1 also contained a significant concentration of Roman CBM (Table 150) that appears to have been deposited as hardcore, and it is highly probable that this plaster and mortar was re-deposited as part of the same process.

The mortar and plaster contained in Roman Sub-Phase 5 Pit F1854 (L1856 Seg.B) exhibits a similar range of painted decoration to the Roman Sub-Phase 4 group. One fragment exhibited two 10mm wide stripes, black and red, separated by a 5mm wide stripe of white paint. A further four fragments exhibited partial red and white stripes, while one fragment had a plain green background, and fragments with a plain red background were common. Pit F1854 also contained a limited quantity (c. 1kg) of Roman CBM including tegula and imbrex roof tile.

Opus signinum was limited to rare fragments in Roman Sub-Phase 2 Ditch F2491 and Roman Sub-Phase 5 Gully F3188. It comprises a pink concrete formed of lime mortar with common-abundant inclusions of crushed red brick/ tile (generally 1-5mm, occasionally larger), which was used to create hard wearing floors as well as in the construction of baths due to its waterproof nature, and has been recorded as part of both Romano-British rural villas and aspirational farmsteads (Ellis 2000, 38 and 99). The fragments from Roman Sub-Phase 2 Ditch F2491 (L2492) include extant flat surfaces, into which additional fragments of coarse CBM have been pressed, possibly for a combination of improved grip and colour.

Decorative schemes exhibiting a range of coloured pigments and materials may have used to project the wealth of the owners of a building, or to designate the elevated status or function of particular rooms (Ellis 2000, 140). Panels with red and black borders (stripes), plain expanses of colour, and stippling or dots (possibly to imitate marble) were common elements, especially in the 2nd century AD, of public, major and private buildings in centres such as Verulamium (Liversidge 1984, 135-6), where such buildings have been preserved and excavated. However; the inclusion and display of decorative plaster panels would have been a component of any Roman house with even limited pretensions (de la Bédoyère 2001, 35). Plaster with white-washed and red-painted surfaces was also recovered in limited quantities from the Maltings, adjacent to the north of the site (Anderson 2004), but in both instances it appears that plaster has been re-deposited as part of the recycling of CBM, probably as hardcore that had been transported and redistributed, rather than directly associated with a substantial building in the immediate vicinity.

The post-Roman CBM

The CBM assemblage included a sparse scatter of post-medieval to modern CBM, in total 73 fragments (23989g), almost entirely as disturbed, intrusive material in Roman Sub-Phase 6, in post-Roman Period III or as un-stratified material. The bulk of the CBM comprises fragments of red brick, largely of late 17th to 18th century origin and including a complete brick sampled from Wall M4379. However, the post-Roman CBM also includes occasional fragments of red or yellow-brown post-medieval peg tile and modern brick, including dove-tailed warning bricks that once overlay electricity cable but were recovered as un-stratified material.

5.7 The slag

Andrew A. S. Newton

Introduction

In excess of 125 pieces of slag (10407g), originating from 35 contexts, were recovered during archaeological excavation at the former Smoke House Inn, Beck Row. The slag was identified on morphological grounds by visual examination.

Results

Period II (Romano-British) Sub-Phase 1 contexts

F4100 (L4101) 10 fragments. 43g Mid grey, quite light, porous material. Dull surfaces. Pumice-like in appearance.

Period II (Romano-British) Sub-Phase 2 contexts

F3172 (L3173) 2 fragments. 35g. Mid grey, quite light, porous material. Some vitrified/ glassy patches. Pumice-like in appearance.

F3469 (L3470) 7 fragments. 369g. Smaller fragments are clearly broken from the larger piece. Dark grey in colour on presumed upper surface orange brown on presumed lower surface. Upper surface is rippled and smooth, Lower surface is rougher with extensive impressions of charcoal. Material is dense but clearly contained extensive gas bubbles/air pockets. Moderate response to magnet. Sub-circular in plan with a fairly flat upper surface and a domed or convex lower surface. This accords with Crew's (1996) description of a plano-convex smithing hearth bottom. However, no evidence of the hearth lining, which is often found attached to such slags (Crew 1996), was present.

L3609C 1 fragment. 341g. Mid grey brown to very light grey in colour. Some orange brown ferrous staining. Dull surfaces. Low response to magnet. Dense material but fractured surfaces indicate some internal porosity/vesicularity. Plano-convex morphology, occasional embedded fragments of charcoal and possible baked/vitrified ceramic (comprising the lighter coloured portions of the fragment) may suggest that this is a smithing hearth bottom.

L3609D 7 fragments. 757g. The material from this context comprises seven fragments of dense material displaying varying degrees of internal porosity/vesicularity. It is a fairly uniform mid grey brown in colour but cannot easily be seen to have been broken from a single larger accumulation of slag. It gives little or no response to the magnet. Beyond a general appearance that may be considered to indicate that this is Fe slag, there few diagnostic characteristics from which to identify the process or processes from which it is derived.

F4090 (L4091) 2 fragments. 143g. Light green grey to mid/dark grey in colour with moderate to frequent orange brown patches. Fairly dense material with dull surfaces. Fractures reveal moderately vesicular interior. Several stones (c. 10mm diam.) impressed into surfaces. Intact cooling surfaces and rope-like or lava-like morphology may suggest that these are from a slag prill or represent fragments of tap slag.

F4957 (L4958) 4 fragments. 76g. The three smaller fragments from this context are of a light and frothy vesicular material, they are fragile and easily break. They vary in colour from black to light yellow brown. These fragments are most likely to be fuel ash slags (Crew 1995). They are, however, very slightly magnetic.

The larger fragment is of a similar pumice-like material but is much denser. It is mid grey in colour with extensive yellow/orange brown discolouration and is strongly magnetic. One surface shows some

rippling characteristic of an intact cooling surface. It is possible that this is a fragment broken from a larger flow of tap slag.

F5029 (L5030) *1 fragment. 493g.* Very dark grey, with some purple grey patches, to very light grey. Dense and moderately magnetic. Broken surfaces reveal on very slight internal vesicularity. The plano-convex morphology of this fragment suggests that it is a smithing hearth bottom. Several large fragments have been broken from it after it has cooled. Several small to medium burnt stones (flint) embedded in the upper surface may represent flux material but their size probably makes them too large for this.

Period II (Romano-British) Sub-Phase 3 contexts

F2149 (L1250) *1 fragment. 122g.* Mid brown grey to very dark grey in colour. Extensive orange brown discolouration. Dull with some very small patches of possible vitrification. Dense and gives a variable, but overall strong, response to the magnet. Amorphous but with occasional possible impressions of charcoal. Undiagnostic Fe slag.

F3238 (L3239) *1 fragment. 83g.* Mid grey with extensive orange brown discoloration. Dense yet pumice-like with extensive surface porosity. Fractured surfaces indicate much less internal vesicularity. Limited response to magnet; however, black and dark red brown striations would appear to represent deposits of Fe bearing minerals within the fragment. This may indicate that this is a slag from a very inefficient or failed smelt or possibly that this is a piece of roasted ore.

F3385 (L3434) *1 fragment. 218g.* Mid grey brown in colour with moderate orange brown discolouration. Dense material with some internal vesicularity evident at broken surfaces. One surface displays moderately extensive rippling/mammilation suggesting that this was the upper cooling surface. Moderate response to magnet. Limited diagnostic features; possible smelting slag.

F3430 (L3431) *2 fragments. 57g.* Mid grey with frequent green grey and light orange brown patches/mottling. Mostly dull surfaces with some small patches of vitrification. Light, frothy material; broken surfaces reveal extensive vesicularity caused by the presence of gas bubbles. Intact cooling surfaces and rope-like or lava-like morphology suggest that these are slag prills from the smelting process.

F3471 (L3472) *1 fragment. 124g.* Dark, slightly orange, red brown in colour. Dense, with no indication of internal vesicularity. Surfaces are dull and display a mostly rippled or mammilated morphology. Voids are present where the slag has formed around charcoal fragments (no longer present). This is a slag prill from within a smelting furnace.

F3498 (L3499A) *1 fragment. 252g.* One surface is a smooth, slightly rippled, dull mid grey with some yellow grey staining. Cracks or fissures in this surface indicate where the outer surface has begun to cool and form a crust while the interior of the material has remained molten. This suggests that this is the upper cooling surface. Towards one edge of this surface is a ridge of darker material ranging from black to dark red; the way that this breaks may indicate that it is overfired clay from the furnace lining. Some vitrification of this material is evident. The opposite surface is a rough, light yellow/orange brown. Very occasional possible impressions of charcoal are evident. The morphology may suggest that this is a fragment of tap slag from a smelting furnace. The clay accretion on the upper surface may be unusual; clay, if present, is usually found on the basal surface of tap slags (Crew 1995).

F4973 (L4974A) *12 fragments. 1831g.* All of this material is broadly similar light grey to very dark grey dense slag. There are no obvious indications that it was all broken from the same single piece but the homogeneity of the material suggests that it may all have been broken from a single smelting furnace bottom. Crew (1995) indicates that such accumulations of slag usually weigh upwards of 2kg and often retain the shape of the base of the furnace and some of its clay lining. Some material which may be over-fired clay adheres to several of the fragments.

F5151 (L5152) *1 fragment. 217g.* Mostly black in colour with some very light grey areas and yellow brown staining from the surrounding soils in the burial environment. Material is dense but

broken surfaces reveal moderate to frequent very small air pockets. One surface is rippled or mamillated, suggesting a cooling surface, while the opposite surface is smooth with several large indentations indicating bubbles or air pockets. Only very slightly magnetic. The presence of a piece of burnt clay embedded or adhering to one surface may indicate that this is an internal flow of slag from a smelting furnace.

Period II (Romano-British) Sub-Phase 4 contexts

F2575 (L2576) *1 fragment. 166g.* Natural Fe rich geology.

F4975 (L4976A) *10 fragments. 259g.* Three fragments are of a mid grey, with extensive very light grey and orange brown patches, dense material. This is slightly magnetic. The material displays infrequent very tiny interior bubbling. The pieces are amorphous and display few diagnostic characteristics.

The remaining 7 pieces are generally a light to mid grey. They are not particularly dense and breaks reveal extensive internal vesicularity. There is some indication of over-fired ceramic from the lining of the furnace or hearth adhering to some surfaces.

F4975 (L4976B) *c. 20 fragments. 521g.* With the exception of two light, frothy light grey fragments of slag with extensive clay, probably from the furnace lining, adhering to them, the material from this context appears to represent a single larger fragment of slag smashed after cooling but prior to deposition. This material is mostly light grey to light yellow brown in colour in with some parts may be considered to be mid to dark grey. Surfaces are generally dull with some small patches of vitrification evident. The material is dense but fractured surfaces demonstrate occasional to moderate gas bubbles. Fractures are mostly angular. Occasional impressions of charcoal. Variable but generally low response to the magnet. This material is potentially an accumulation of so-called furnace slag but is probably best regarded as undiagnostic Fe slag.

Period II (Romano-British) Sub-Phase 5 contexts

F2268 (L2269D) *1 fragment. 267g.* Ranging from very dark grey to dark red/purple to orange brown in colour. Very dense material. Variable response to magnet across surface. Broken surfaces reveal limited interior air pockets, very rough and rippled surface and occasional possible charcoal impressions. However, no clear impression of the process or part of the process from which this material derived is evident. It is possibly smelting slag.

F2695 (L2697) *2 fragments. 60g.* Natural Fe rich geology in slightly unusual shapes.

F3378 (L3380) *1 fragment. 43g.* Light grey to dark grey with partial orange brown discolouration. Fairly dense material but fractured surface reveals presence of large air pockets. Surfaces dull. Some rippling. Possible slag prill from smelting furnace but quite amorphous. Low response to magnet indicates low Fe content suggesting efficient smelting process.

F3435 (L3437D) *2 fragments. 90g.* Very light grey to dark grey in colour. Occasional areas of orange brown colouration. 2-3 large (>20mm) stones embedded in material. Dense but broken surfaces reveal some interior vesicularity. Low response to magnet. Limited diagnostic evidence is present but the presence of stones embedded into this material could suggest that it derives from an internal flow of slag within the furnace from towards the end of the smelt (Crew 1995) or that it is a fragment of smithing hearth bottom from a particularly shallow hearth.

F3966 (L3967) *2 fragments. 16g.* Mid orange brown. Very dense. No response to magnet. Mamillated upper surface. Naturally occurring Fe-rich geology. Possibly clay ironstone (Whitten and Brooks 1975, 84).

F5086 (L5087) *1 fragment. 2g.* A small fragment of light grey pumice-like fuel ash slag.

Period II (Romano-British) Sub-Phase 6 contexts

F1374 (L1375) 458g. The material from this context comprises a brittle concretion of mid green brown to light orange brown sand, with occasional very small angular stones, around a seemingly naturally occurring core of iron mineralisation or iron pan. The material gives no response to the magnet. This material would appear not to derive from ironworking processes.

In addition to this material was a small tube (c. 45mm length; c. 23mm diam; DPs 1-3) of hard mid yellow brown material, possibly baked clay, with occasional small stones adhering to its outer surface. Given the presence of ironworking waste from other contexts at this site it is possible to suggest that this may have formed part of a furnace structure; it is possibly part of a very small tuyere from a small bloomery smelting furnace. Its size, however, might make it too small to have functioned in such a way. It is equally possible that this object had some other function not associated with ironworking and could even be a slightly unusual but naturally occurring accretion of minerals.

L3947P 1 fragment. 423g. Dark grey to mid brown grey to very light grey/white with moderate orange brown patches. Very dense material but clearly some vesicularity, caused by gas bubbles, is present. Morphologically this fragment would appear to be a plano-convex smithing hearth bottom and it compares well to examples of such material from the National Slag Collection (e.g. NSC015.01 and NSC029.01). However, several very small fragments of burnt flint are impressed into its upper surface; only very occasionally in a shallow hearth does a slag cake of this type pick up stones or clay (Crew 1996). Some vitrification is present on the upper surface and at fractures. A notable response to the magnet is only present from the lower surface.

L3947Z 1 fragment. 155g. Dark brown grey to very dark grey. Dull surfaces. Dense but angular fractures reveal moderately porous/vesicular interior. Moderate small stone inclusions. One surface shows some rippling but no clear indication of flow. Possibly a fragment of tap slag.

L3947SS 1 fragment. 255g. Fairly uniform mid grey-brown in colour with occasional orange brown patches. Very dense material but occasional broken surfaces indicate some vesicularity. Very similar in form to the fragment from L3947P. Possible impressions of charcoal on lower surface and some very small chips of heat-affected flint also adhere to this surface. These are potential the remains of flux applied during smithing; during the examination of the chemical and phase composition of slags from three Iron Age ironworking sites in Lithuania Selskienė (2007, 27) observed that the presence of flux was an indicator of a smithing slag. Several slightly larger pieces of burnt flint are present on the upper surface. Overall morphology suggests that this may be a plano-convex smithing hearth bottom but this example is very shallow (especially in comparison to the example from L3947P). This, and the adherence of stones to this material, may indicate that it was formed in a very shallow hearth (Crew 1996).

L3947ZZ 1 fragment. 298g. Grey-white to dark grey in colour. Dense with limited internal porosity. Little to no response to magnet. Morphologically similar to the examples from L3947P and L3947SS; this suggests that this may be another possible plano-convex smithing hearth bottom. However, charcoal and burnt stones embedded in what would appear to be the upper surface and further impressions of charcoal in this surface may be unusual for slag of this provenance.

F4094 (L4095) 1 fragment. 383g. Dark grey brown upper surface, mid orange brown lower surface. Very dense material with limited porosity/vesicularity. Limited response to magnet. Very clear impressions of charcoal on the lower surface indicate that this material formed on a bed of fuel. This, along with the overall morphology of the fragment, supports the suggestion that this is a plano-convex (or perhaps more accurately in this case, a concave-convex) smithing hearth bottom. It is very similar to contemporary examples from the National Slag Collection (e.g. NSC015.01 and NSC029.01). The presence of a small number of stones adhering to the lower surface may indicate that it was formed in a shallow hearth (Crew 1996).

F4094 (L4129D) 2 fragments. 376g. The larger fragment is dark grey to very light grey becoming mid grey brown on one surface. Material is dense and is only slightly magnetic. Morphologically this fragment is very similar to the material that came from F4094 L4095 and would appear to be a second plano-convex smithing hearth bottom from this feature.

The second fragment is small a light and would appear to comprise over-fired clay with a small amount of whitish grey slag adhering to it; this suggests that this may represent a small quantity of furnace or hearth lining.

F4106 (L4107) *2 fragments. 359g.* Larger fragment (317g): Mid grey brown to green brown in colour. Very dense material with some clear areas giving very strong response to the magnet. Lacking diagnostic features but a single clear impression of charcoal suggests that it formed on a bed of fuel. This may indicate that it was a smelting furnace slag or a fragment of smithing hearth bottom.

Smaller fragment (42g): Very light grey to mid grey with frequent grey green patches. Moderately light, vesicular material little to no response to magnet but given the presence of other Fe slag in this context may be reasonably assumed to be from iron working processes. Undiagnostic.

F4449 (L4450A) *1 fragment. 61g.* Almost uniformly dark grey in colour. Slightly porous appearance to one surface. Surfaces generally dull. Angular fractures reveal a thick, dense interior showing little porosity. Moderately magnetic. Undiagnostic Fe slag.

F4962 (L4963C) *2 fragments. 95g.* The larger fragment is a mid grey to light grey material. Not particularly dense and gives little response to the magnet. Few diagnostic characteristics.

The smaller fragment is highly magnetic and could possibly be a small fragment of iron with extensive accretions comprising corrosion products and the surrounding sandy substrate.

F4962 (L4963D) *2 fragments. 185g.* Two conjoining fragments comprising a light, fragile porous material which is light in colour surrounding a darker, denser material. Gives little or no response to the magnet. Morphologically could be a very shallow smithing hearth bottom but lacks any other characteristics of this type of slag. Must therefore be classified as undiagnostic slag.

F5022 (L5024) *3 fragments. 150g.* Fragment 1: White and very light grey to light yellow grey. Fairly dense with some internal porosity. Dull surfaces but with some small glassy/vitrified patches. Little to no response to magnet. Possible baked clay adhering to one surface. Undiagnostic probable Fe smithing slag.

Fragment 2: Dark purple grey brown with patches of yellow brown discolouration. Slightly to moderately magnetic. Dense but angular fractures reveal moderately porous/vesicular interior. Surfaces generally dull. Very occasional impressions of charcoal. Slight rope-like, rippled appearance and some slight indication of flow suggest that this may be a fragment of a slag prill from a smelting furnace.

Fragment 3: Dark orange brown spheroid object with gritty surfaces. Slightly magnetic. Possibly an accretion of naturally occurring iron oxides.

F5109 (L5110) *3 fragments. 13g.* Two fragments from this context are small and of fragile, light, vesicular material. The range in colour from light grey to yellow brown and are clearly fragments of fuel ash slag. The third fragment is mid red brown in colour. It is composed of hard but light material and has rough surfaces. It appears to derive from a high temperature process but can only be defined as undiagnostic slag.

Period II (Romano-British) Sub-Phase 7 contexts

F3979 (L3980B) *1 fragment. 181g.* Dark grey to dark orange brown. Very dense. Limited response to magnet. Undiagnostic Fe slag, possibly from smithing.

Period III contexts

L3621 *7 fragments. 212g.* The majority of this material is light to mid grey in colour, dense but also porous and pumice-like, and occurs in blocky, angular fragments. It gives no response to the magnet. The exception to this is a single fragment which, although composed primarily of the

same material differs as it is curved and nodular in morphology and contains fragments of burnt stone and a single nodule of black material that is strongly magnetic and is clearly rich in Fe. If this material does derive from iron smelting or ironworking processes these were clearly very efficient, given the apparent low remaining Fe content, and this would tie in with the post-medieval date of the context.

F4234 (L4381A) 1 fragment. 218g. Yellow brown to black in colour. Very dense. Numerous burnt flints embedded towards one edge. Response to magnet varies from weak to moderately strong. Amorphous and with limited diagnostic evidence is present but the presence of stones imbedded into this material could suggest that it derives from an internal flow of slag within the furnace from towards the end of the smelt (Crew 1995) or that it is a fragment of smithing hearth bottom from a particularly shallow hearth.

Discussion

Given the intensity of the archaeological activity recorded during the excavation, the quantity of slag is not great. Features dated to Roman Sub-Phase 4 produced the most slag by fragment count (c. 31 fragments) while the features of Roman Sub-Phase 6 produced the most by weight (3211g). These low quantities (see Table 153) and the lack of evidence for structures associated with metalworking such as hearths and kilns at the site suggest that this material derived from another location before being deposited at the current site.

Period & Sub-Phase	Fragment count	Weight (g)
Period II Sub-Phase 1	10	43
Period II Sub-Phase 2	24	2214
Period II Sub-Phase 3	20	2904
Period II Sub-Phase 4	c. 31	946
Period II Sub-Phase 5	9	478
Period II Sub-Phase 6	22	3211
Period II Sub-Phase 7	1	181
Period III	8	430
Total	125	10407

Table 153: Fragment count and weight of slag by period and sub-phase

The majority of the slag assemblage is Fe slag, deriving both from the smelting and refining/ smithing processes. However, some material recovered during excavation as slag has been identified, following examination, as naturally occurring Fe rich minerals such as clay ironstone. Geological conditions in the vicinity of the site are favourable for the formation of ironstone; this material is known to occur at the fen margins of the nearby Mildenhall Fen, where it has been observed to occur as massive lumps, and is probably formed in the same way as bog iron ore (NSRI 2013).

Twelve possible plano-convex (or in some cases concave-convex) smithing hearth bottoms, or fragments thereof, were identified. Three of these were recovered from Roman Sub-Phase 6 layer L3947. This has been identified as a post-abandonment 'dump' or accumulation of artefact-rich material. A further three such items were recovered from other features assigned to this sub-phase. It is unlikely, however, that this represents an increase in smithing activity at this time.

The presence of a small tube (DPs 1-3) recovered from Roman Sub-Phase 6 feature F1374 (L1375) may indicate the presence of a smelting furnace at or near the site. It is possible that this item represents part of a small tuyere, the tube used for introducing air into the furnace. However, given its small size and the lack of structural evidence for furnaces at this site, or the other sites that have been subject

to excavation in close proximity, it is equally possible that this item represents something completely different. Even if it does derive from a furnace it could have made its way into the context from which it was recovered as refuse material.

The overall character of the slag assemblage probably represents nothing more than accumulation of material, over a prolonged period, incorporated in to refuse deposits. The fact that many of the slag fragments appear to have been broken from larger pieces suggests that they are not in primary depositional contexts immediately following removal from the furnace or hearth. It may have been removed to the current site for a variety of reasons. Clearly, however, the presence of slag indicates that there must have been some kind of ironworking activity in the surrounding area.





Digital Photographs (DPs) 1-3: The possible tuyere from F1374

5.8 The animal bone

Julie Curl and Dr Julia EM Cussans

Introduction

The faunal assemblage examined from the former Smoke House Inn, Beck Row, Mildenhall produced material weighing a total of 478,691kg, consisting of 17,352 pieces of bone, with the assemblage producing at least seventeen species, including Crane, Whimbrel and Beaver. The assemblage included a range of dogs from the large Wolfhound type to diminutive terriers, the latter perhaps serving a role as lap-dogs. The assemblage produced a range of animal burials and a deposit of at least six fowl and some suggestions of 'ritual' activity. Debris from antler, bone and horn-working activities was also identified.

The main aims of the analysis were to identify species present at this site and to determine the roles of the main domestic species and how these might have changed over time and to determine the contribution made to the site from wild species. It is hoped, if possible, to identify socio-economic or functional differences within the site and to place the Mildenhall site within the regional and national context for the Romano-British period in terms of subsistence and animal husbandry. The analysis and gathering of metrical data could provide information on the breeds in use at Mildenhall and their changes through time. The analysis will provide the opportunity to examine some of the more unusual contexts in more detail, to identify activity areas and possible 'ritual' or religious deposits and to examine the numerous animal burials.

Methods

All bone was identified to element and species wherever possible using a variety of comparative reference material. Where bones could not be identified to species, they were recorded to a wider taxonomic group, for example: 'duck sp⁸.' or 'fowl'. Where the group could not be determined then bone was separated into 'bird' or 'mammal' and the 'mammal' bone further divided where possible into 'large mammal' (e.g. cattle/horse sized), 'small-medium mammal' (e.g. sheep/pig sized) and so on. For greater simplicity on tables in this report these have been grouped as 'mammal'; further individual counts are available in the digital archive.

The mammal bones were recorded using a modified version of the recording method described in Davis (1992) with some restrictions due to time restraints. The following were always recorded: all upper and lower teeth, scapula (glenoid articulation), distal humerus, distal radius, proximal ulna, distal metacarpal, carpal 2-3, pelvis, distal femur, distal tibia, calcaneus, lateral part of the astragalus, cuboid and distal metatarsal. For all of these bones, at least 50 per cent of the given element had to be present.

For the bird bone, the following were always recorded: distal tarso-metatarsus, distal tibio-tarsus, distal femur, distal humerus, proximal coracoid, proximal ulna, proximal carpo-metacarpus and scapula (articular end). Measurements (listed in the

⁸ Species

appendix) were taken where appropriate, generally following von den Driesch (1976) for mammal and Cohen and Serjeantson (1996) for birds. Humerus BT⁹ and HTC¹⁰ and metapodial “a” and “b” are recorded as suggested by Davis (1992). Tooth wear and age estimation was recorded following Hillson (1996), Grant (1982) and Silver (1969).

Horncores were recorded when present and the following measurements were taken: greatest length, maximum base width and minimum base width. Horncores were only measured when at least one of these complete measurements could be taken.

Evidence of butchering was also recorded, noting butchery type (e.g. cut, chopped or sawn) and location. A note was also made of any burnt bone. Relevant pathologies (for example due to husbandry, age or diet) were also recorded with the type of injury or disease, the element affected and the location on the bone. Other modifications, including evidence of working and animal gnawing, were also recorded.

Bone weights and total fragment counts were also taken for each context, along with the number of fragments for each individual species present (NISP; listed in the appendix). For clarification, for each phase the NISP for the range of species in that phase is tabulated. An additional table giving the NISP for all species in all phases and species by feature type is presented in the appendix.

All information was recorded directly into an Excel spreadsheet for analysis. A full catalogue is provided in the digital archive providing details of all faunal remains by context, all quantification and metrical data. Measurements and tooth records are tabulated in the appendix. Summaries of various counts are tabulated within the report.

Taphonomy

Gnawed bone

Canid gnawing was evident throughout the assemblage (Table 154), with most gnawing seen in Roman Sub-Phases 2 and 6 and from ditch and pit fills, with little in medieval contexts. While some may result from scavenging, possibly by wild animals, the remains buried in pits would suggest some bone waste was given to domestic dogs and subsequently disposed of with human food waste. A greater amount of bone from ditch fills was gnawed, suggesting that material from some ditches was only buried slowly, thus making it more accessible to scavengers. Canid gnawing can be very destructive and can destroy some elements, particularly smaller bones, completely, as well as obliterate other signs of modification such as butchery marks or pathological lesions. Canid activity can also result in the removal of bones from a site – when animals take remains away to cache – often (depending on cache location) making them available for other species to scavenge.

⁹ Trochlea width

¹⁰ Humerus trochlea

On some sites, canid gnawing might be restricted to certain elements (e.g. metapodials from skinning waste), but at the former Smoke House Inn, gnawing was seen on a range of elements, indicating food and butchering waste given to dogs rather than scavenging of processing waste. Canid gnawing was seen on a young cattle metatarsal and thoracic vertebrae from Ditch Fill L1112 (Seg.E); a cattle humerus, from Ditch Fill L1924 (Seg. A) had also been gnawed. From Subsoil L1090 gnawing was seen on a metapodial, radius and scapula, showing the range of elements available to dogs. Little gnawing was seen on foot bones, such as phalanges; such small elements are often gnawed and the apparent low number in this case might indicate their total consumption. Small bones are also easier to carry away and cache, thereby removing them from the archaeological record. Differential rates of recovery of smaller bones during excavation must also be considered as a possible biasing factor.

No gnawing was seen on the complete animal burials (ABGs) – supporting the theory that these were probably culled, rapidly buried animals, perhaps for sacrifice, rather than natural deaths of stock in the field, which might have been exposed to scavenging by wild animals and domestic dogs prior to burial.

Of particular note are instances of canid gnawing on other canid bones, present in three Romano-British contexts (Roman Sub-Phases 2 and 6); these may represent the remains of wolves which had been skinned and the meat used for feeding domestic or working dogs.

Type	Period/ sub-phase and number of gnawed bones												Total by feature type
	Modern	Period I	Period III	Roman 1	Roman 2	Roman 3	Roman 4	Roman 5	Roman 6	Roman 7	U/S	Unphased	
Cremation backfill													
Ditch		10	1	4	18	13	21	21	20	1		1	110
Grave													
Gully					4	5	7	3	7				26
Kiln													
Layer					7				3	6			16
Modern boundary													
Natural depression			1										1
Pit		2	1		3	1	4	1	4				16
Pit (SK)													
Plough scar													
Posthole													
Posthole													
Pit fill (SK)													
Spread				1									1
Subsoil			10										10
Tree bole													
Unspecified													
Vessel													
Vessel/ ditch													
Total by phase		12	13	6	32	19	32	25	34	7		1	181

Table 154: Quantification of gnawed bone by period/ sub-phase and feature/ context type

In terms of species, gnawing was only recorded on remains of cattle, sheep/ goat, pig/ boar, deer, equid and dog/ wolf. More gnawing was recorded on cattle and

equid bones than on sheep/ goat or porcine bones. While there is a greater number of gnawed cattle bones than bones of other species due to cattle being the most commonly identified species, this pattern might also reflect the specific provision of beef meat/ bones (over other species) to domestic/ working dogs. The Roman writer Varro states that dogs were 'not allowed to feed on the flesh of dead sheep, for fear that the taste will make them less inclined to spare the flock' (after Hooper and Ash 2006). It is possible that sheep meat was not deliberately given to dogs on site, or perhaps only to household pets; most of the gnawed ovicaprid bones are metapodials and may well represent scavenged skinning waste rather than bones intentionally given to dogs.

Burnt bone

Very little bone was burnt (less than 0.5 per cent in total), with only 53 fragments recorded in the whole assemblage. Most of the burning was seen on fragments of mammal bone too small for species identification, with some burning also recorded on cattle and sheep/ goat remains. Slight burning was noted on one equid tooth from Ditch Fill L1112 (Seg.B). A complete horse metatarsal from Ditch Fill L1435 (Seg.H) showed very slight burning on the rear mid-shaft and in two places on the distal end of the bone. The burning seen in this assemblage would suggest survival of butchering and food waste discarded on domestic fires and some charring, perhaps from joints that were roasted, rather than any deliberate burning of carcasses or the use of bone as fuel.

Butchering

A range of butchery evidence was recorded. Skinning evidence, with fine knife cuts on foot bones and metapodials along with some cuts on skulls and mandibles, was frequently seen, particularly on cattle, but also on sheep/ goat, horses, some canids and one deer. Some of the skinning cuts present appear excessive for the purpose. As it is possible to skin a carcass and leave little or no trace on the bone, these excessive cuts should perhaps be seen as the work of an inexperienced individual, possibly a layman or trainee.

The skinning on canid bones may well represent the removal of pelts from wolves, but use of dog skins must also be considered. Butchering, in particular skinning, was recorded on numerous horse bones. Although it is generally considered that Romans (and those in other periods in Britain) did not favour horse meat, it is clear that horse butchery is a relatively common occurrence on many Roman sites (see below). The evidence from the former Smoke House Inn suggests that horses were frequently skinned, with some dismemberment and meat use also attested.

Chop marks, indicative of dismemberment, were present in the assemblage. These included sagittal chops on vertebrae resulting from the division of the carcass, and chops through upper limb bones, pelvic bones and scapula from the production of joints. Filleting of meat from cattle scapulae was observed and fine knife cuts and scrapes, indicating the removal of meat, were seen on pelvic and long bones. Some ribs were chopped and cut into sections, probably for use in soups and stews. Fine knife cuts were observed on the inner (lingual) surfaces of some cattle mandibles which would suggest removal of the tongue.

Sawing – a possible method of dismemberment – was recorded on the neck of one scapula from Roman Sub-Phase 1 (Ditch F1675), but it would appear that the cleaver was the preferred method at this site. Sawing was used in the preparation of antler for working however; this method would have allowed more accurate division and limit the risk of damage due to splitting.

Longitudinally split metapodials were seen from some fills, likely resulting from marrow extraction. Smashing of many bones was noted, again, presumably for accessing marrow.

Overall, the butchering seen in this assemblage is typical of that observed on other sites of the same date range. Generally, no obvious difference in butchering was noted between Periods or between Romano-British sub-phases. Some butchering is perhaps excessive, but this may simply be the work of a layman or novice butcher. The longitudinal splitting of bone is sometimes thought to be more typical of Anglo-Saxon butchery (Hagan 1992), but this splitting, to extract marrow, has also been seen in Roman deposits. Similarly, a small amount of sawing was noted on bone as well as on antler – while this is typical on antler working waste, it is less common on bones in earlier periods. Sawing was not observed from the adjacent Maltings site (Willet 2004), but has been recorded on Romano-British cattle bone from the immediate area; it is likely that saws were employed in the dismemberment of larger animals like cattle, while cleavers were probably sufficient for smaller stock processing. The removal of the horns from cattle and some sheep/ goat skulls certainly suggests that they were retained for working, and perhaps makes these skulls less likely to be of 'ritual' significance (where generally skulls are intact).

Possible working waste

A cattle tibia from Roman Sub-Phase 3 showed trimming at the distal end, a rectangular hollowing in the modified distal shaft and some polishing on the shaft, suggesting use. A cattle horncore (from a medium-longhorn type) showed numerous knife cuts around the circumference of the core base, indicating removal of the outer sheath for working. Several other horncores showed chops at the base, which might suggest removal from the skull for working. Horn-working was most frequent on cattle remains from Roman Sub-Phase 5; the only sheep horn-working waste was also from this sub-phase. Further cattle horn-working waste was seen in Roman Sub-Phases 2, 3, 4 and 6.

A single swan bone in Roman Sub-Phase 5 had been trimmed and showed some polishing, which suggest working, possibly as a musical instrument.

Several pieces of red deer antler showed some modification indicative of working waste. One Period I roe deer antler had also been modified.

Species presence and abundance

A total of 17 species were positively identified. A good deal of bone had undergone sufficient fragmentation or destruction of diagnostic zones to make it unidentifiable to species and this is grouped as 'mammal', 'small mammal' or 'bird'. The remains identifiable to species are quantified in Table 155. This table does not distinguish

between different types of cattle (e.g. long-horn, Celtic), equid (e.g. pony, horse, mule), canids (e.g. lap dogs, larger dogs etc) or fowl (e.g. chicken, pheasant, guinea fowl) in the assemblage.

Species	Period I	Roman 1	Roman 2	Roman 3	Roman 4	Roman 5	Roman 6	Roman 7	Period III	Modern	U/S	Unphased	Total
Cattle	28	104	460	358	375	471	1613	99	967	1	10	48	4534
Sheep/goat	1	31	116	46	50	110	352	19	13		2	51	791
Pig/boar	3	4	12	19	7	17	1076	3	1051		1		2193
Equid	1	8	65	23	61	76	168	12	17			3	434
Dog/wolf		36	60	177	8	7	225	2	71				586
Dog			1	2		2	35						40
Cat							2						2
Red Deer	3	1	25	2	48	11	4	1			2		97
Roe Deer	1		1		4								6
Hare			2				6		3				11
?Beaver			1										1
Mammal	72	377	1347	1000	1107	1210	2438	321	300	3	29	186	8390
Small Mammal (Unidentified)			1										1
Bird - Fowl		4	2			1	220	1			1	1	230
Bird - Goose			1	2		2	6		2				13
Bird - Duck					1								1
Bird - Crane			8		1							2	11
Bird - Swan						1	1						2
Bird - Whimbrel							1						1
Bird - No ID			1				7						8
Total	109	565	2103	1629	1662	1908	6154	458	2424	4	45	291	17352

Table 155: Species quantification (NISP) by period and sub-phase

Cattle were the dominant species in the assemblage in all periods and sub-phases, identified from a total of 730 individual contexts. Ovicaprids were the next most abundant, identified from 281 contexts, with the majority of the remains being those of sheep, although goat was also recorded. A range of equids were recorded from 177 contexts, with pony-sized elements outnumbering those of horse. Porcine bones were yielded by 58 contexts; most of these probably derived from domestic stock, but some remains may have been those of wild boar. The numbers of porcine remains were boosted greatly in Roman Sub-Phase 6 and Period III by the presence of eight juvenile burials. The relative abundance of the main domestic species in the Roman sub-phases can be seen in Chart 1.

Canid remains were yielded by 72 contexts and included a wide range of sizes, from large Wolfhound-sized animals down to diminutive Maltese terrier-sized individuals; the later breed was introduced to Britain by the Romans. The presence of wolf is uncertain, although several elements were within the size range for this species. In addition, many of the bones in the 'wolf' size range had been skinned and it is possible that wolves were deliberately caught for this purpose. Like pig, canid numbers were also boosted by a number of articulated deposits; further details are given in the animal bone groups (ABGs) section below.

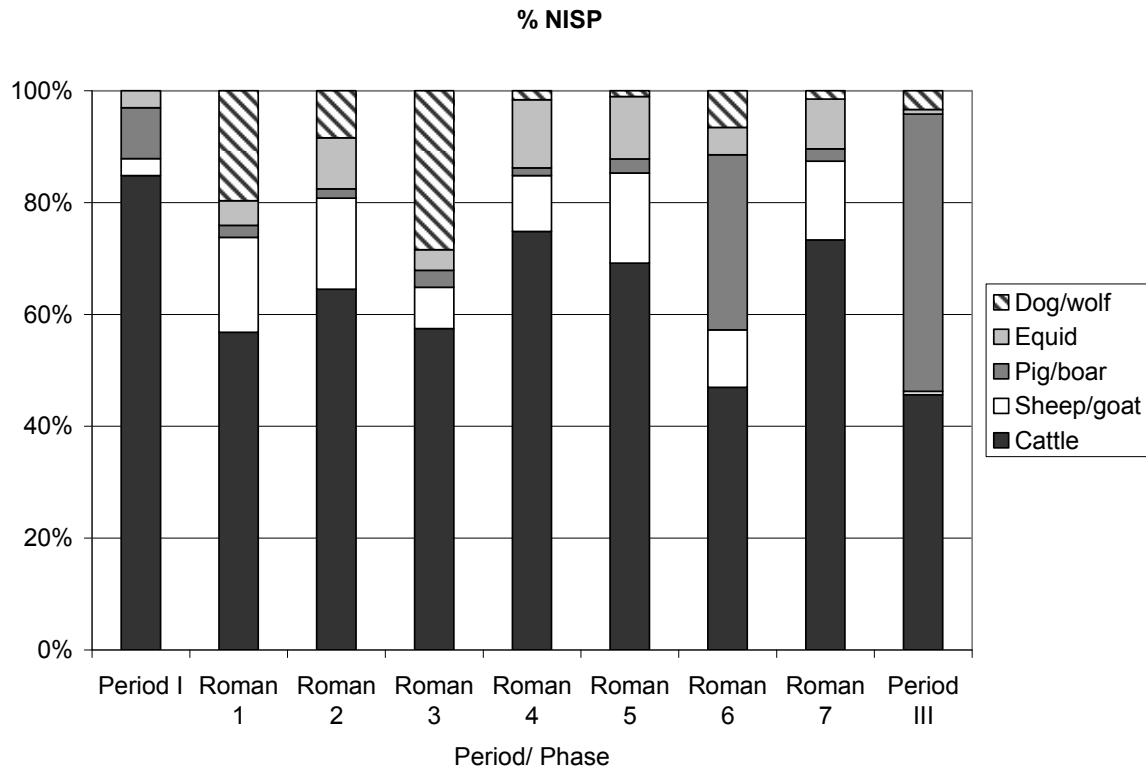


Chart 1: Percentage representation of main domestic species by period and sub-phase

Both red deer and roe deer were identified, with the former being the most abundant of the two species. Some contexts produced only antler working waste and some of this was naturally shed.

Small mammals are quite poorly represented, with hare present from eight contexts and beaver from a single feature. Two fills produced elements from cats.

Six bird species were identified. The most common remains were those of fowl, identified from 13 contexts, with one large group of fowl bones (MNI = 6) from one Roman Sub-Phase 6 feature. The remains of goose were present from ten contexts, most within the size range for domestic goose, while one was reminiscent of the much smaller Brent Goose. Common crane was recorded from five contexts and mute swan from three, including Midden/ Layer L3947 (Roman Sub-Phase 6).

Period I

A total of 8715g of faunal remains, consisting of 120 pieces was recovered. Remains were predominately butchered bones of cattle, with some pig/ boar and a single Bronze Age sheep/ goat mandible. Pieces of red and roe deer were recovered, including a naturally shed roe deer antler from Pit Fill L4473 (F4474), which shows a cut on the main stem, suggesting possible working debris.

Period II

Roman Sub-Phase 1

Roman Sub-Phase 1 produced a total of 14407g of faunal remains, consisting of 565 pieces. The bulk of the bone was derived from butchered cattle, including skinning and food waste and several fills produced sparse remains of sheep/ goat. Few bones of pig/ boar were seen in Roman Sub-Phase 1. Several bones of equid were seen, including a small individual (possibly a mule). Two types of canid were recorded, comprising one large variety and one small; the smaller remains appeared to belong to an elderly individual. A single red deer calcaneus was also recorded from this sub-phase. Three fills also produced sparse fowl bone.

Roman Sub-Phase 2

This sub-phase yielded a total of 60793g of faunal remains, consisting of 2084 pieces. The principal species in this phase is cattle; ovicaprid remains include sheep and goat. The sparse porcine bones recorded included some boar-sized examples. Butchering waste and food debris from red and roe deer was also found in this sub-phase, but no antler waste, suggesting the main interest in these animals was for meat. A number of equid bones were seen; canid bones were also relatively frequent and include a small terrier type, which may have been a pet or working animal.

Apart from deer, wild species were represented by hare and beaver. Several fills produced birds. Common crane (*Grus grus*) was seen in one pit and two gully fills, with remains including a juvenile, which might have been easier to catch. Small quantities of goose and fowl were also seen in this sub-phase.

Roman Sub-Phase 3

This sub-phase yielded a total of 50478g of faunal remains, consisting of 1629 pieces. Cattle were the most frequent of the identifiable species and considerably more common than ovicaprid or pig/ boar. Only three contexts in this phase produced porcine remains. Bones from Ditch Fill L1247 (Seg.B) include a large tusk, which suggests the hunting of wild boar. Small numbers of equid bones were seen from twelve contexts, with the metrical data indicating animals in the range for large ponies/ small horses. Red deer bones were found in two fills and include a gnawed radius and one piece of antler working waste. Canid remains were the second most common species in Roman Sub-Phase 3 (in terms of NISP). Birds were represented in Roman Sub-Phase 3 by goose wing bones from two separate fills.

Roman Sub-Phase 4

This sub-phase yielded a total of 59930g of faunal remains, consisting of 1647 pieces. Cattle are the most frequently recorded species with butchering and food waste present. Sheep/ goat were represented by a wide age range (from neonatal to older animals), indicating a wide range of uses on site. Pig/ boar remains from Roman Sub-Phase 4 are largely juvenile and consistent with meat waste. The equid remains from this sub-phase are all from adults. Metrical data indicate the presence of medium to large ponies. Two Roman Sub-Phase 4 fills produced canid bone.

Red deer are the most commonly occurring deer species, while one fall produced four roe deer bones. Both species were used for meat. Antler was more frequent than meat waste, with most of this being naturally shed; some of the antler fragments exhibit chop, cut and saw marks suggestive of working.

Birds are represented by a juvenile crane tarsometatarsus from Ditch F4496 (L4497 (Seg.C)) and a duck (?mallard) carpometacarpus from Gully F1711 (L1712 (Seg.E)).

Roman Sub-Phase 5

This sub-phase yielded a total of 68954g of faunal remains, consisting of 1913 pieces. Cattle were the most frequently recorded species, followed by sheep/ goat then equid. Pig/ boar were only present in relatively small numbers and were only marginally more frequent than deer in this sub-phase in terms of the number of pieces/ elements. The sheep/ goat remains include both sheep and goat. Equid remains are mostly from pony-sized animals (bar a single horse-sized element). Canid bones include a medium to large animal and a small, gracile individual (possibly a lap-dog), both from Ditch F1139 (=2212=2291).

Deer were seen in similar numbers to pig/ boar in this sub-phase. Antler working was recorded on a naturally shed tine from Ditch F1720 (L1721 (Seg.B)), while Spread L3295 (=3296) produced a sawn and cut tine – further fine scratches and polishing are visible on this piece that are frequently seen on modern antlers following the rutting season. Post-cranial elements are also present, including a gnawed tibia and chopped scapula, showing that although naturally shed antlers were collected, some deer were clearly killed for their meat.

Bird remains from Roman Sub-Phase 5 consist of a small number of bones of fowl and goose. A single incomplete swan ulna (mentioned in Working Waste section above) was found in Ditch F1429 (L1431 (Seg.M)), which had been cut and shows some polishing – it is quite possible that this bone had been partly worked, perhaps for a flute or handle.

Roman Sub-Phase 6

This sub-phase yielded a total of 134698g of faunal remains, consisting of 6113 pieces. Cattle were the most frequently recorded species in this sub-phase, but, in contrast to other phases, the next most frequent species (in terms of NISP) was pig/ boar, largely due to the presence of a number of articulated remains (see ABGs section below). Sheep/ goat were seen in far less numbers compared to other Roman sub-phases. Interesting too is the relatively high number of fowl bones compared to all other Roman sub-phases and periods, these numbers are inflated by a number of complete or partial skeletons. The bird remains include a large group of fowl bones, comprising a minimum of six individuals; it is possible that these represent a seasonal cull or, perhaps, an offering to Mercury. Small amounts of fowl are present from other contexts. Several geese were recorded, including individuals of domestic size and a probable, smaller wild species – the Brent Goose (*Branta bernicla*). Swan and whimbrel were also recorded, both displaying evidence of butchery.

Pig/ boar bone was present from 14 features, with four of these producing ABGs, hence the high numbers of pig in this Sub-Phase; Layer/ Midden L3947 only produced a single porcine bone.

Small mammals consisted of cat bones, including a mandible from Layer/ Midden L3947. Five fills in this phase produced bones of hare, which was likely used for meat and possibly fur.

Equids were frequently recorded, including a reasonably complete skeleton (SK15) of a pony of approximately 12.5 to 13 hands high from Grave/ Pit F5045 (L5046). Numerous bones of equid were recorded from Layer/ Midden L3947. Canid remains were present from 29 contexts in this phase with sizes ranging from small lap-dogs to wolfhound sized animals. A large group of canid bones, comprising at least three individuals was found in Pit F1704 (L1739); Dogs/ wolves were also identified from Layer/ Midden L3947 and several bones were found in Ditch F1729 (=1760).

Three contexts produced deer, two of which yielded antler-working waste, while one produced a limb bone from meat waste.

Roman Sub-Phase 7

This sub-phase yielded a total of 15919g of faunal remains, consisting of 462 pieces. As with other sub-phases, the remains are largely derived from butchered cattle. Small amounts of pig/ boar were seen along with adult and juvenile sheep/ goat. Only one bird bone was present, a single fowl femur from Layer L3355. Several bones of mainly adult equids were recovered, along with one juvenile, most appearing to be robust pony types. Two contexts produced bones of medium to large sized canids, which are within the range for wolf, but could be working dogs. A piece of sawn red deer antler was seen from Layer L3355, suggesting some working activity in this sub-phase.

Period III

Period III (medieval/ post-medieval) yielded a total of 59187g of faunal remains, consisting of 2424 pieces. The assemblage is dominated by cattle, including the remains of four skeletons: SK6 and SK10 are those of neonates, which may represent natural deaths at birth or soon after; SK12 and SK13 are young adult animals. The bone from Period III also includes three skeletons of pigs: SK5 and SK7 are those of juveniles of less than 6 months old, while SK14 is a similarly aged juvenile with a foetal skull. Further details of all these skeletons are given in the ABGs section below. A small amount of sheep/ goat remains were recorded from Period III. Two contexts also produced hare with Gully F3581 producing a scapula and Pit F4054 yielding a radius and tibia.

Modern

Modern features produced just 4 pieces of bone, amounting to 99g. These bones were recovered from a gully fill and comprised of a cattle mandible and unidentifiable fragments.

Unstratified

The unstratified bone assemblage comprises just 45 pieces weighing 909g. The bulk of the assemblage is from unstratified soils and constitutes fragments of unidentifiable mammal bone. Small amounts of cattle, pig/ boar, sheep/ goat and fowl were recorded, with fragments of cattle scapula and metapodial condyles present in an unstratified Roman vessel.

The unstratified material also includes a naturally shed red deer burr with brow tine and part of the main beam present. There are chops into the branch of the brow tine, indicating some attempt at working.

Unphased

The unphased bone assemblage comprises 290 pieces weighing 4732g. Butchering and food waste from cattle dominates the assemblage. Sheep/ goat remains include metapodials, phalanges and cuboids from Pit F4062 (L4064 (Seg.B)), suggesting perhaps whole lower legs discarded from a skin. A few small pony bones were also recorded, but pig/ boar is absent.

Unphased bird bone comprises a fowl femur and vertebrae and scapula from a common crane (the latter from Pit F4062 (L4064 (Seg.B))).

Description of Individual Taxa

Cattle

Age and type

The estimated ages of the cattle derived from bone fusion and tooth eruption and wear data show a predominance of adults of 2 years and over in most of the Roman sub-phases, with many adult cattle kept beyond 4 years of age, suggesting a working life and breeding prior to use for meat. Some juveniles were also present throughout the Roman period and these probably represent a yearly cull for meat. Neonatal remains were observed from Roman Sub-Phases 5 and 6, possibly representing natural birth/ post-birth deaths or even sacrifices. Greater quantities of neonatal and juvenile remains were seen in Period III, possibly indicating an economic shift towards milk production and the associated culling of calves. Table 156 shows the age ranges of cattle calculated from tooth wear and eruption data.

Period/ sub-phase	Context	Other	6 mths-1 year	1-2 years	2-3 years	3-4 years+
Roman 1	1323	E		1		
	2696					1
	4339	B				1
Roman 2	1706					1
	1861				1	
	1861	B			1	
	1887	C		1		
	2321	C				1
	4091	K		1		
	4091	K	1			
	4091	N				
Roman 3	1249	B		1		
	1463	B				1
	1708	C			1	
	2168					1
Roman 4	1930	F				1
	3377	B				1
	3377	B		1		
	3377	B		1		
	3377	B				1
	3377	B				1
Roman 5	1112	B	1			
	1141	C				
	1431	N				1
	1734	B			1	
	2697				1	
	3360	C		1		
Roman 6	1859				1	
	2344	SK3				1
	2344	SK3				1
	3362					1
	3362				1	
	3515	B				1
	3947	XX				1
Roman 7	1926	G				1
	3980	B				1
Period III	1090			1		
	4456	SK12			1	
	4458	SK13			1	
	4458	SK13			1	
Unphased	1360			1		

Table 156: Estimation of cattle ages from tooth eruption and wear data. Listed by period/ sub-phase and context

The cattle remains included Celtic type elements and long-horn type horncores. Metrical data from the adult cattle metapodials is presented in Tables 157 and 158 and Charts 2 and 3 and has also been used to estimate shoulder heights for a number of individuals. There is some evidence for a slight increase in cattle size over time through the Roman Sub-Phases. It is notable that the smallest individual recorded is from Roman Sub-Phase 1 and the largest are from Roman Sub-Phase 6, but in the intervening sub-phases there is a great deal of overlap in size ranges. It must be taken into consideration that there is sexual dimorphism within this species, which could account for variation throughout periods. A short stocky individual is indicated by a short, robust metacarpal from Roman Sub-Phase 4 Ditch F1929 (L1930 (Seg.D)), which is thought likely to have been a bull. Compared to other Roman cattle from Mildenhall (Curl forthcoming a) and the Norfolk/ Suffolk border at Scole (Baker 1998) the animals at this site are large, with metacarpal and metatarsal sizes exceeding those from both the immediate area and Scole.

Period/Phase	No.	Range (mm)	Mean (mm)
Period I	\	\	
Roman 1	\	\	
Roman 2	1	153	153
Roman 3	3	181-195	190.3
Roman 4	5	171-180	175.8
Roman 5	3	180-198	188.7
Roman 6	2 (SK3)	210-221	215.5
Roman 7	1	198	198
Period III	5	187-223	209.4

Table 157: Summary measurement data for cattle metacarpals

Period/Phase	No.	Range (mm)	Mean (mm)
Period I	1	202	202
Roman 1	1	206	206
Roman 2	4	206-232	217.3
Roman 3	4	213-243	229.8
Roman 4	5	213-227	221.2
Roman 5	2	208-215	211.5
Roman 6	6	202-253	225.5
Roman 7	\	\	\
Period III	6	219-266	242.8

Table 158: Summary measurement data for cattle metatarsals

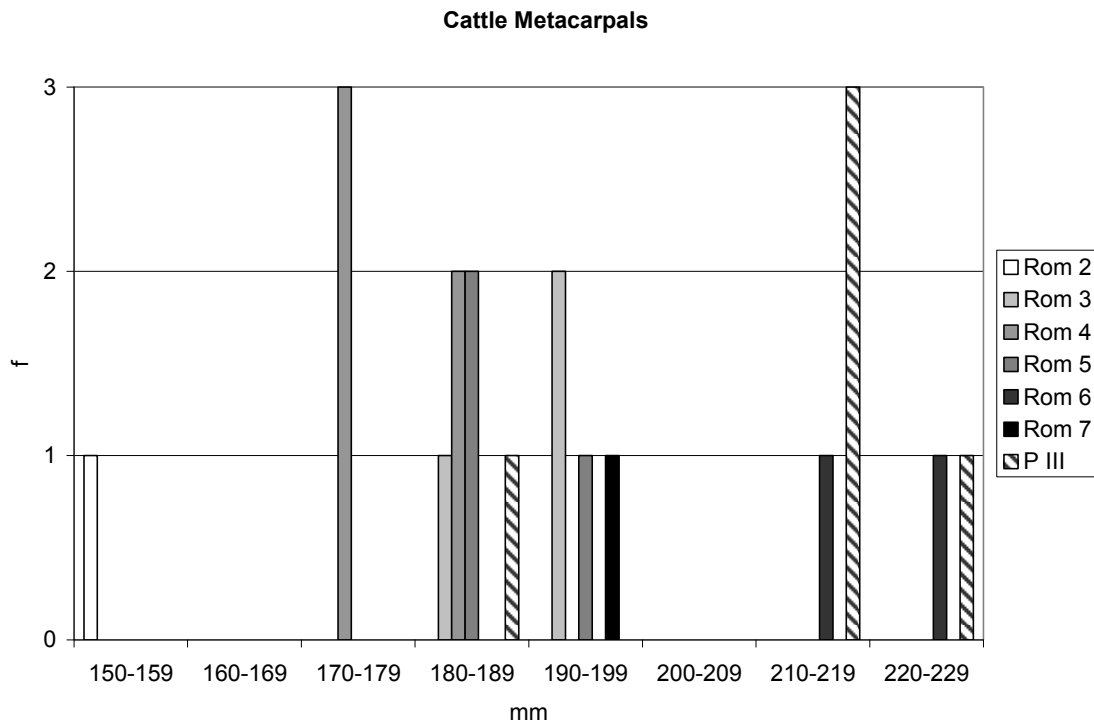


Chart 2: Cattle metacarpal measurements by period and sub-phase

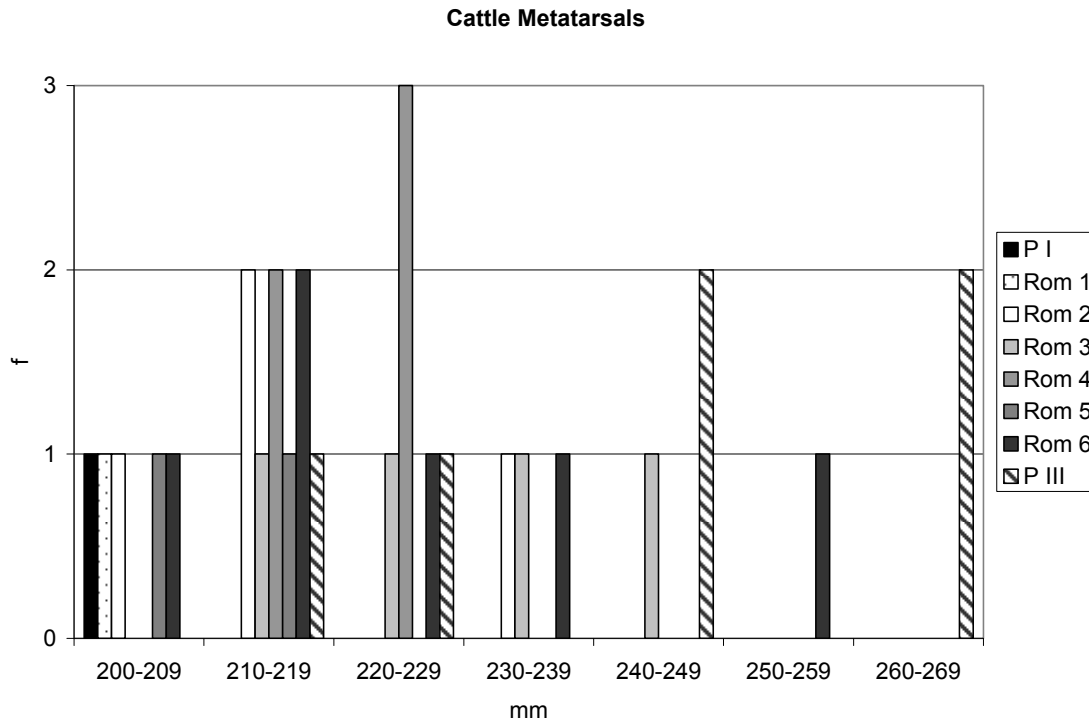


Chart 3: Cattle metatarsal measurements by period and sub-phase

Roman cattle from the site generally fall within the size range recorded for Witham in Essex (with withers heights of between 104 and 131cm; Luff 1999), although the overall size range recorded for the Beck Row assemblage is greater (withers heights between 94cm to 137cm). The smallest individual in this assemblage is certainly well within in the range for the primitive Dexter breed (usually no more than 1m at the shoulder), common from the Iron Age. The Dexter-type is thought to derive from the Kerry, the most commonly occurring Iron Age and Roman breed, but with a gene for dwarfism. These small cattle are able to produce approximately 320-365kg (cow) to 430-500kg (bull).

The medieval and post-medieval periods appeared to see some improvement in cattle in terms of size, with height estimations ranging between 119 and 144cm.

Butchery

Cattle butchery was common throughout the Roman Sub-Phases. A range of butchering was seen including skinning, dismemberment, meat removal and some longitudinal splitting for marrow extraction. Cuts on mandibles consistent with tongue removal were present in some cases as was evidence of horn removal. Layer/Midden L3947 (Roman Sub-Phase 6) produced a large amount of cattle bone, which appears to be mixed butchering and food waste and included evidence of skinning and some horn-working. One cattle femur in this sub-phase has a hole in the distal end which might be interpreted as possible working; it is perhaps more likely, however, that this hole occurred as a joint of beef was pushed onto a spit. A similar phenomenon was noted on a tibia proximal articulation from Roman Sub-Phase 3.

A cattle horncore (from a medium-longhorn type) from Period III Pit F1163 (L1164) had multiple knife cuts around the circumference of the core base, indicating removal of the outer sheath for working.

Pathology

One right cattle metatarsal from Roman Sub-Phase 4 Pit F1704 (L1739) shows distortion and some 'pulling' of condyle A inwards, and might suggest traction-related strain, possibly from ploughing. An ossified haematoma was seen on the front mid-distal shaft, on the inner side of a large metatarsal, which might suggest regular pressure from a cart or plough. An oval lesion measuring 11mm in length was seen on the articular surface of a robust proximal cattle metacarpal from Roman Sub-Phase 4 Gully F3154 (L3155 (Seg.E)). Another lesion of 8mm in diameter was seen on a proximal metacarpal from Roman Sub-Phase 2 Gully F4090 (L4091 (Seg.F)). More lesions were seen on the proximal metacarpals of SK12 (Grave F4455 (L4456)) and SK13 (Grave F4457 (L4458)), both from Period III. Such lesions are likely to represent osteochondritis dissecans, thought to occur in young cattle as a result of strain, possibly suggesting the training of young animals for ploughing or similar. One rib from SK12 showed signs of a healed fracture.

Periodontal disease was occasionally seen, usually along with high levels of calculus deposits and tooth wear, indicating older individuals or possibly those fed on a poor diet.

Arthritic problems were frequently seen, ranging in severity, usually on lower limb or foot bones. Some arthritis was seen on vertebrae, which is likely to be from age-related wear, use in traction or perhaps as a result of injury. One cow from Roman Sub-Phase 3 Gully F4069 (L4070) displayed severe exostoses on two thoracic vertebrae. Severe arthritic growth was also recorded on a proximal phalanx from unphased Pit F2025.

Sheep/ goat

Age and Type

Sheep/ goat ages varied more throughout the assemblage than those of the other meat species. Although the majority of the ovicaprid remains are from adults, juveniles are frequent throughout and neonatal elements are recorded from Roman Sub-Phases 5 and 6 and Period III. The tooth wear analysis shows that most individuals were aged approximately 4-5 years or more, indicating the keeping of both sheep and goats for milk, wool and breeding. The ovicaprids from Roman Sub-Phase 1 appear small and slender (gracile), similar to the primitive Soay breed.

Butchery

A range of butchering evidence was recorded from throughout the Roman Sub-Phases. Evidence of skinning and meat production/ consumption is present. In Roman Sub-Phase 5 butchery evidence is similar to that present within the cattle assemblage, although the ovicaprid remains included a greater quantity of primary waste. No obvious horn-working waste was recorded, although one Roman Sub-

Phase 6 ram's skull from Gully F4042 (L4043 (Seg.A)) may have been used for this purpose or for decorative or ritual practices.

Pathology

The most common pathology recorded within the ovicaprid assemblage was periodontal disease – often an indicator of old age and usually associated with well-worn teeth. One sheep from Roman Sub-Phase 3 Gully F2322 (=3236=3603) showed periodontal disease and evidence of an abscess with swelling on the outer (buccal) mandible. A sheep horncore from Roman Sub-Phase 6 Layer/ Midden L3947 showed 'thumbprint depressions' with a slight 'pinching' effect along much of the horncore – a condition often associated with over-breeding, over-milking or even harsh conditions (perhaps resulting in a poor diet) leading to re-absorption of calcium from the horncore (Albarella 1995). A sheep/ goat tibia from the Roman Sub-Phase 6 Ditch F3500 appears to have osteomyelitis with a large amount of remodelling and additional bone growth around the lower to mid shaft, with a drainage hole through the bone which would have drained pus away from the infection. This infection may have been the direct result of a fracture or break of the tibia, although is also likely to have entered the blood and bones via another location. Similar human infections, often seen on the bones of the leg, can result from septicaemia; such an infection would almost certainly have led to the animal's death.

Pig/ boar

Age

The ages of the porcine remains show most were culled when juveniles. Tooth wear from Roman Sub-Phases 2 and 5 and Period III suggest they were killed on average at around 1-1.5 years – a good meat-bearing age. Aside from breeding, there is little use in keeping pigs longer than this. In Roman Sub-Phase 6, tooth wear showed at least three individuals killed at 4-8 months, which might suggest an autumn cull either of domestic pigs or wild boar. Although the porcine assemblage is dominated by juveniles, adults and neonatal animals are present throughout, indicating some culling of adults (and perhaps hunting of wild boar) and the possible natural deaths of neonatal individuals through accident and/ or ill-health, pigs having relatively large litters and suffering losses as a result. This would tend to indicate the presence of a breeding population on or near to the site itself.

Butchery

A butchered humerus was present in Roman Sub-Phase 5 and a small quantity of butchery was noted on the pig ABGs, more details of which are given below.

Pathology

With the exception of the modification of the vertebrae from Roman Sub-Phase 6 Grave F4540 (L4541) (discussed in more detail below), there were no other bone pathologies noted within the porcine assemblage. Most animals were probably killed before any abnormalities had developed or were manifest on the bones.

Equids

Age and Type

Most of the equids were adult. A few juvenile remains were seen, but perhaps too few to suggest on-site breeding during the Romano-British period; the only neonatal equid remains were dated to Period III. Metrical data show the height range for the equids in the Roman Sub-Phases as 9.9 to 15.8 Hands High (HH), with the smallest individual in Roman Sub-Phase 2 and the largest individuals in Roman Sub-Phase 6, although generally there was little variation in size throughout the Romano-British period with most in the range of 12 to 14 HH (within the range for ponies). The two larger Roman equids from Roman Sub-Phase 6, at 15.7 HH (Pit F4705) and 15.8HH (Ditch F3612=2255) are in the size range for small horses, perhaps suggesting some selection of larger animals in the later Roman period. A small amount of metrical data was available for Period III, and suggested that the equids were of the same height range, being a mix of ponies and small horses. Metrical data for Equid metapodials is shown in Tables 159 and 160 and Charts 4 and 5. These indicate the presence of a number of larger animals in the later Roman Sub-Phases but no great shift in equid size over time; however the data set is small.

Roman Sub-Phase	No.	Range (mm)	Mean (mm)
2	1	204	204
3	1	233	233
4	2	185-227	206
5	5	193-227	210.8
6	6	203-245	216.8
7	1	227	227

Table 159: Equid metacarpal measurement summary data

Roman Sub-Phase	No.	Range (mm)	Mean (mm)
2	1	237	237
3	1	269	269
4	3	251-272	262.7
5	2	236-254	245
6	6	221-297	254.3
7	1	242	242

Table 160: Equid metatarsal measurement summary data

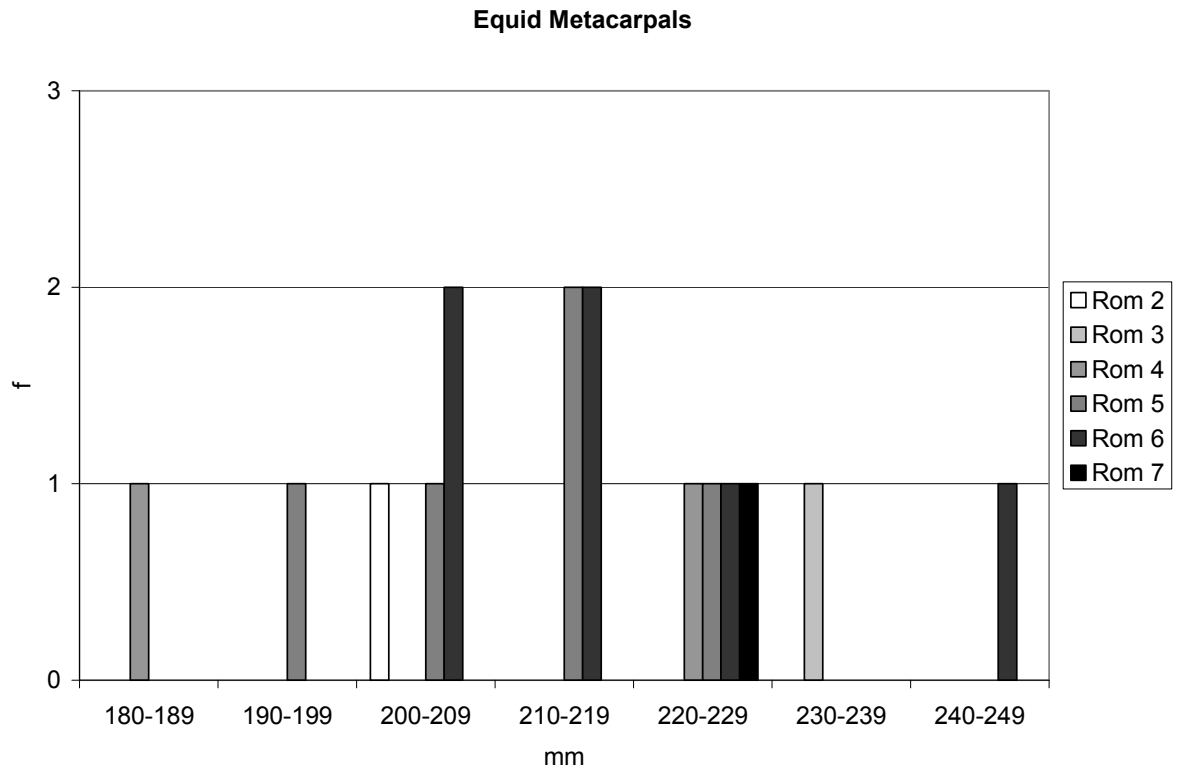


Chart 4: Equid metacarpal measurements by Roman Sub-Phase

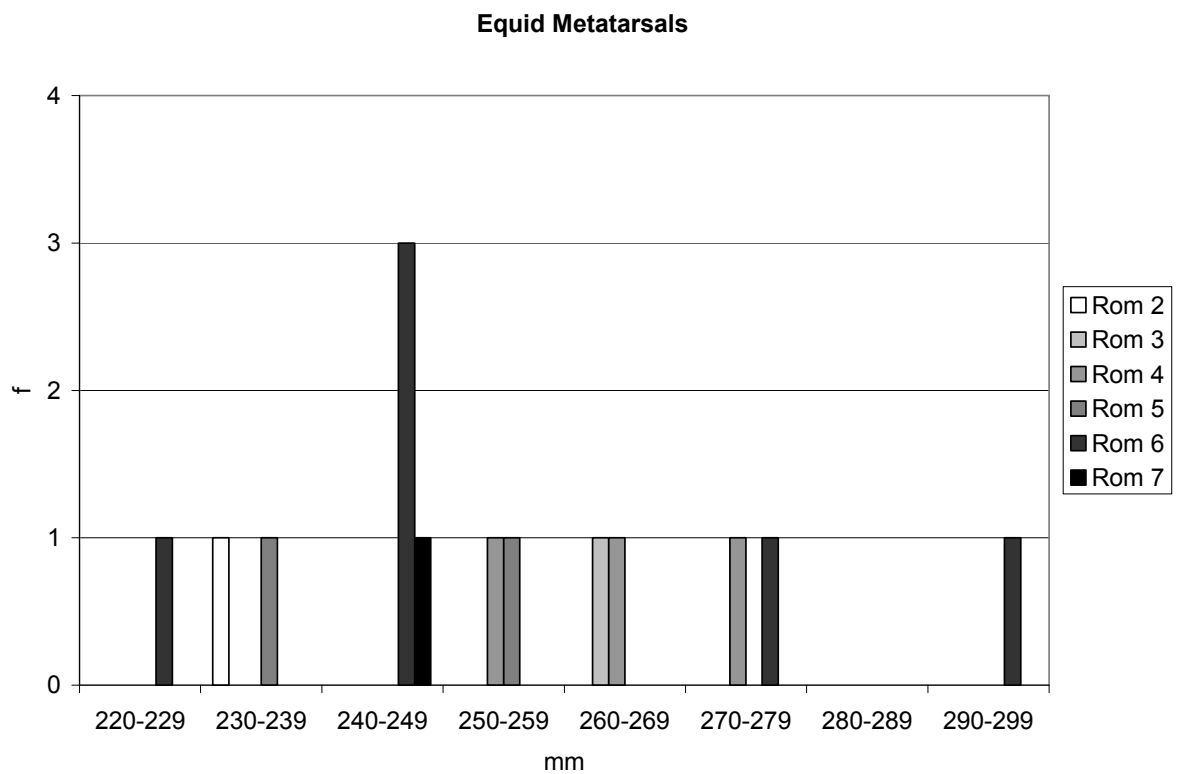


Chart 5: Equid metatarsal measurements by Roman Sub-Phase

Butchery

Butchering was noted on many equid bones, mostly from the Roman Sub-Phases and one element from Period III. Primarily, the butchering appears to be as a result of skinning, with fine knife cuts on metapodials. Some butchering was seen on upper limb bones and on a scapula and pelvic bones, which would suggest at least dismemberment and possibly meat removal. Table 161 provides a summary of the butchering evidence on the equid remains by period and sub-phase. A medium-sized pony metacarpal from Roman Sub-Phase 3 Pit F1798 (L1791) had been butchered more heavily with one oblique chop to the distal front and one oblique chop to the distal rear of the bone, leaving a pointed wedge at the distal end. This may relate to processing for meat, removal of the hoof or dismemberment for burial.

The butchering of equids varies from one site to another. At Gorhambury, St Albans (Locker 1990) some evidence of utilisation was seen with cuts on tibia, presumed to be evidence of skinning, and a worked piece from one Iron-Age fill. The overall level of butchering was low, however, and it was not thought that horse formed part of the human diet in any period (*ibid.*). Sparse evidence for the butchering of equids was seen at Exeter (Maltby 1979a, 1979b), which included a first-century metatarsal that had been sawn into three portions, presumably excessive for food use but perhaps intended for working. Few equid bones were seen at Roman Caister-on-Sea (Harman 1993) and no butchering was reported, with similar findings at Brancaster, Norfolk (Jones 1985), although the latter site yielded two sawn equid bones which were thought to be worked. At Scole, Norfolk (Baker 1998) some similar butchering was seen to that at the current site, but was infrequent. In contrast to the current site, no butchering of equids was recorded at the adjacent *Maltings* site (Willet 2004).

The Romans disliked eating horseflesh and their primary use was for traction and racing, although there is some evidence that they were eaten in Britain (Alcock 2001). A butchers shop at *Verulamium* produced horse bones that had been defleshed prior to burial on site. It is possible that the meat was eaten in the form of sausages (*ibid.*). Butchered equid was also seen at the General Accident Site, Tanner Row, York (O'Connor 1988). At Lincoln, as at Beck Row, both equids and canids had been butchered (and presumably eaten in small numbers (Alcock 2001)).

It is notable that, at some of the above sites, there was evidence for the modification of equid bones – such as sawing at Brancaster (Jones 1985) – but not for the utilisation of the meat.

In support of the theory that the equid meat was at least sometimes eaten here at Beck Row is the frequent canid gnawing on horse/ pony elements, including on main meat-bearing limbs. This gnawing would suggest that these limbs were readily available for scavenging or had been provided as food, and therefore that butchering went beyond simple skinning. It does of course have to be considered, given the presence of wolves in the Romano-British period, that equids may have died and been scavenged (or even preyed upon) by wolves and that some canid damage to bones might have occurred this way. It is also possible that horses and ponies were butchered specifically to be fed to dogs and did not enter the human food chain.

Period/ sub-phase	Feature	Feature type	Segment	Context	Comments
Rom 1	1717	Ditch	A	1718	tibia, cut on shaft
	1571	Ditch	F	1572	distal metatarsal, fine knife cut on mid shaft, light gnawing at distal
Rom 2	1395	Ditch	A	1397	very small, slender equid – juvenile – unfused metatarsal – cut on shaft
	3172	Gully	D	3173	metatarsal with cuts/ scrapes down the proximal anterior and arthritic changes at proximal
	3601	Ditch	A	3602	metatarsal with fine cuts and scrapes along the length of the shaft
	1423	Ditch	H	1435	large metatarsal, horse, fine knife cuts at front mid-distal shaft, slight charring in places
Rom 3	1789	Pit		1791	med-sized pony metacarpal, oblique chops at distal ends – front and rear
	1105	Ditch		1106	metatarsal, cuts on front shaft from skinning
	1370	Ditch	C	1371	metacarpal, pony, in two pieces, cut on shaft, slight gnawing, slight arthritis at proximal
	1735	Ditch	K	1736	small metacarpal, gnawed at distal and proximal ends, cut on shaft
	1988	Pit		1990	metacarpal, cut on mid-shaft, gnawed at both ends
	2567	Ditch	G	2570	larger pony, cut on proximal front complete metatarsal
	3376	Ditch	B	3377	small, slender metatarsal – cut on shaft
	1429	Ditch	N	1431	pony sized metacarpal with knife cuts at proximal front shaft and gnawed at proximal end
Rom 5	2171	Ditch		2172	scapula with knife cuts on spine and neck
	2174	Ditch	B	2176	almost complete small slender metacarpal cut at distal front, more robust distal metatarsal that has been sawn clean across shaft
			C	2176	robust metatarsal, light chop into rear distal end just above fusion line
			D	2175	proximal metacarpal with arthritic growth at proximal end and cuts on rear mid-shaft
	2695	Pit		2696	slender metatarsal, cut at distal end
	1147	Ditch	I	1149	small, slender metatarsal, knife cut 33mm from front proximal
Rom 6	1147	Ditch	J	1149	pelvic bones, 1 cut close to acetabulum
	1727	Ditch	B	1728	small cut metatarsal – cut on shaft – incomplete, knife cut on proximal phalanx
	3947	Layer	U	3947	scapula with cuts on blade and neck
	3947	Layer	Z	3947	complete metatarsal with cuts on front shaft
	4075	Pit	B	4076	2 metacarpals, 1 heavily cut on shaft, 1 light skinning cut at distal end
Rom 7	1925	Ditch	G	1926	metatarsal – cut from distal and along shaft
Period III		Subsoil		1090	humerus with fine cuts/ scrapes (and trampled)

Table 161: Summary of the butchering evidence on equid remains

Pathology

Bone modifications resulting from arthritic problems, predominantly on metapodials and phalanges, were the most commonly occurring pathology within the equid assemblage, which is to be expected from an animal that is often kept to mature age and used for traction and load-bearing. Layer/ Midden L3947 in Roman Sub-Phase 6 produced three equid vertebrae with arthritic growth. Additionally from L3947 there is an incomplete lower jaw with the right P2 showing some swelling within the tooth, above and below the gum line – this growth may be genetic in origin, a tumour or perhaps the result of an injury leading to abnormal growth; it is possible that the animal may have suffered little or no discomfort with such a growth. Enamel hypoplasia was also seen on one equid with well-worn teeth; these characteristic lines on teeth result from disruption to tooth growth (early in life), usually as a result of malnutrition.

Dogs

Age and type

The Beck Row assemblage has produced quite a range of dog types or breeds with animals ranging from large wolfhound types to small lap-dogs. Several individual canids were represented in the large assemblage from Roman Sub-Phase 6 Layer/Midden L3947, with metrical data suggesting the presence of at least five dogs including a possible wolf or large dog. The remains appear to represent canids in the ranges of a large terrier, a toy breed, a smallish bow-legged individual, a possible wolf-sized individual and an elderly wolfhound.

Bones of at least three medium to larger sized canids were recovered from Roman Sub-Phase 6 Pit F1704 (L1739), comprising a variety of vertebrae, sacra, pelvic bones, scapulae, some limb elements, calcanei, metapodials, phalanges, ribs and mandibles. These canids are all of adult age, although a lack of age-related pathologies (dental or arthritic), suggests animals of no more than a few years old.

The reasonably complete skeleton of a small dog was found in Period III Pit F1562 (L1563). The metrical data for this dog indicate a breed in the size range for Chihuahua or Maltese Terrier; given the introduction of the Maltese terrier in the Romano-British period, this little animal might tentatively be Roman. No dating evidence exists to support this however.

When compared to other Roman sites, there are clear similarities with Colchester (Curl 2009; Luff 1992) where a wide range of dogs have been recorded from large Mastiffs to the diminutive Maltese Terrier. It is possible that the relatively close proximity of Beck Row to Colchester might have led to a greater availability of dogs at the current site (or *vice versa*). The small and slender Italian Greyhound type bones found at Beck Row are very similar to those found at another, nearby excavation (Curl forthcoming a) and to a small Romano-British dog found at Feltwell Road, Southey (Norfolk; Curl 2007a). At Scole (Baker 1998), small to medium breeds were seen, but not lap-dogs; there were also some exceptionally large dogs that were thought to have been used for hunting or guarding.

Butchery

Butchery marks on canid remains appear to almost exclusively result from the skinning of these animals. Marks were frequently found on mandibles and other bones throughout the phases and tend to concentrate on the medium and larger animals.

Butchering of canid remains has been recorded at other sites of the same period range. At Gorhambury, St Albans (Locker 1990) some probable skinning was noted from the second century AD and medieval deposits. It is notable that only one canid bone from Scole (Baker 1998) displayed any cut marks, suggesting that the pelts of these animals were less used than at Beck Row.

Pathology

Pathologies were relatively frequent within the canid assemblage. Many animals had very worn teeth, some showing slight chips in the enamel – mature animals are likely and it is possible that these animals regularly gnawed on bones. Periodontal disease and well-worn teeth were seen on a large dog (?Wolfhound) with the wear probably contributing to the gum disease. Arthritis was evident in some individuals, though was usually slight. Two lumbar vertebrae from Roman Sub-Phase 3 Pit F4196 display arthritic changes and are quite distorted.

The most interesting pathologies are on two femora – one from a medium to large sized individual from Roman Sub-Phase 3 Ditch F4491 and the other a small dog from Roman Sub-Phase 3 Ditch F4487. Both bones display almost identical distortions – bending of the distal femur – which may be the result of rickets. Rickets is caused by a lack of vitamin D, or may be from a lack of calcium or phosphorus; there are also hereditary forms (Waldron 2008). The form of rickets seen here is osteomalacia, the adult form of rickets – with both canid femurs derived from adult individuals – which is usually recognised by bowed femora or tibiae. A hereditary form of rickets may well be possible and it would help to explain the appearance of this problem in two individuals in the same sub-phase; however these animals differ greatly in size and are not likely to be related. The lack of phosphorus would be unlikely as meat is a rich source, unless there was a shortage of meat at the time the puppies were developing and they may have been given a cereal-based diet. Calcium deficiency might be possible if the puppies were not weaned correctly and particularly if they were taken from the mother too soon. It is also possible that the puppies were raised indoors or at least in kennels – the Roman writer Varro (Hooper and Ash 2006) mentions the keeping of dogs in kennels, and providing them with leaves and fodder in wet weather so ‘they do not become muddied and to keep them from being chilled’. The possibility that there was some on-site breeding of dogs in Roman Sub-Phase 3 might be more likely and perhaps not in the best of conditions, resulting in deficiencies. Possible rickets has been previously identified in archaeological canid material, with a bowed ulna from Colchester (Luff 1992) being considered as ‘a minor deformity from immature rickets’. Clearly the Colchester individual and those from the current site survived this problem and, although they may not have been suitable for hunting with a minor deformity, they would have made suitable guard animals or companions. The larger of the two dogs, found in Roman Sub-Phase 3 Fill L4492, showed more curving than the small dog, which would have resulted in a greater lameness for the adult animal; the continual stress and wear resulted in arthritic problems for this individual, leaving the distal end of the femur with additional growth around the articulation.

Roman Sub-Phase 4 Pit F4194 (L4195) produced two canid lumbar vertebrae that are fused together. The neural spines of these vertebrae are missing, so it is not possible to determine the extent of the problem. There are similarities with two equid vertebrae from Colchester (Luff 1992), considered the result of a possible congenital problem, but potentially resulting from injury.

Deer

Red deer and roe deer remains were recovered from twenty-nine fills. Three red deer bones came from Period I, the rest of the deer remains came from the Roman Sub-Phases. The majority of the remains were from red deer, with just four fills yielding roe deer. The presence and frequency of deer remains are shown in Chart 6.

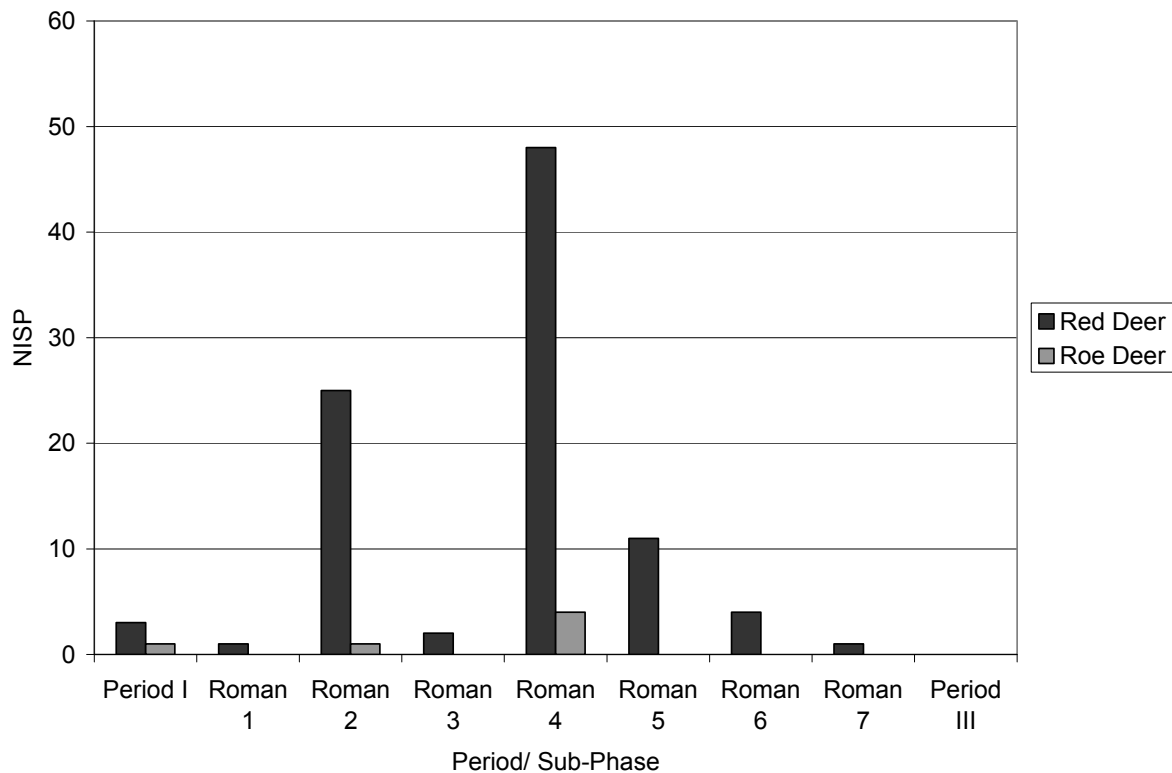


Chart 6: Presence and frequencies of deer (NISP)

Many fills produced waste from antler working with a variety of burrs, tines and beam fragments showing cuts, chops or sawing. Some of the red deer and roe deer antler was naturally shed and probably collected locally for working; some is likely to have come direct from carcasses (see Taphonomy section above for further details of antler working). Several post-cranial bones of both species were identified, showing their use for hides and meat. Several bones from a robust roe (presumably a stag) from Roman Sub-Phase 4 Gully F1711 suggest that the whole animal might have been used.

No pathologies were observed on the deer remains.

Small mammals

There is a relative lack of small mammals, especially rodents and mustelids, perhaps due to a recovery bias. However, the lack of traditional fur species such as badger and fox is surprising, especially given that larger canid species were regularly skinned.

Two contexts produced remains of cat (both from Roman Sub-Phase 6), with a humerus from Layer/ Midden L3947 and a mandible from Ditch F3791 (=5098). Cats were likely kept for pest control and perhaps as pets in some cases. The occurrence of wild cat is also possible in the Romano-British period.

A single beaver radius was found in Roman Sub-Phase 2 Ditch F1882. The radius had been chopped, attesting to the use of this species for meat and probably fur. Beaver was a much sought after animal for its high quality pelt, meat and medicinal uses (an aspirin like substance is found in the glands due to their consumption of willow trees). The tail is also a good source of fat. Beaver was relatively common in wetland areas until the medieval period in East Anglia. An undated find of beaver is known from Mildenhall and pre-Roman finds are known from Norfolk at Hockwold cum Wilton, Micklemoor Hill and Poppylot (Coles 2006). An Iron-Age beaver was also identified from Long Melford in Suffolk (Curl 2012). Anglo-Saxon examples are known from Suffolk at Sutton Hoo (Coles 2006) and Eriswell (Curl forthcoming b). Although few by comparison, Romano-British finds of beaver have been made at Shapwick in Dorset and Bishops Stortford, Hertfordshire (Coles 2006). It is possible that the lack of beaver in Romano-British contexts reflects their scarcity by this period, although their remains are known locally from Saxon sites including a humerus from Eriswell (Curl 2012); the presence of this bone rules out the possibility that only a pelt was present. Medieval finds of beaver are also known across the country (Coles 2006). It is possible that the Beavers reacted to the pressures of hunting and adapted to human predation with a change of habits, resulting in a decline in Romano-British evidence and then an increase in later centuries (cf. Coles 2006).

Six contexts yielded brown hare bones; one from Roman Sub-Phase 2, three from Roman Sub-Phase 6 (three bones were yielded by Layer/ Midden L3947) and one from Period III. The bones present suggest meat waste, although only one bone showed any clear butchering. However, such a small animal may well have been cooked reasonably whole and would not require much butchering. The brown hare would have been relatively common in the Romano-British period and a readily available source of fur and food; Roman recipes for this animal are known (Alcock 2001).

Bird bones

The avian assemblage is dominated by the remains of at least six fowl from one deposit. Goose was occasionally recorded, along with duck, crane, swan and whimbrel.

The relatively low number of wild birds might suggest a reliance on domestic stock and, perhaps, the provision of more unusual wild birds for special meals. It is possible that wild birds were simply utilised chance finds, rather than being actively hunted.

Fowl

Remains of fowl (chicken/ pheasant/ guinea fowl) were present from 13 contexts, most of which were Romano-British in date. Of the 230 fowl bones identified, 215

were from Roman Sub-Phase 6 Pit F1167 (L1168). Chart 7 shows the abundance of fowl remains compared with goose in the Roman sub-phases.

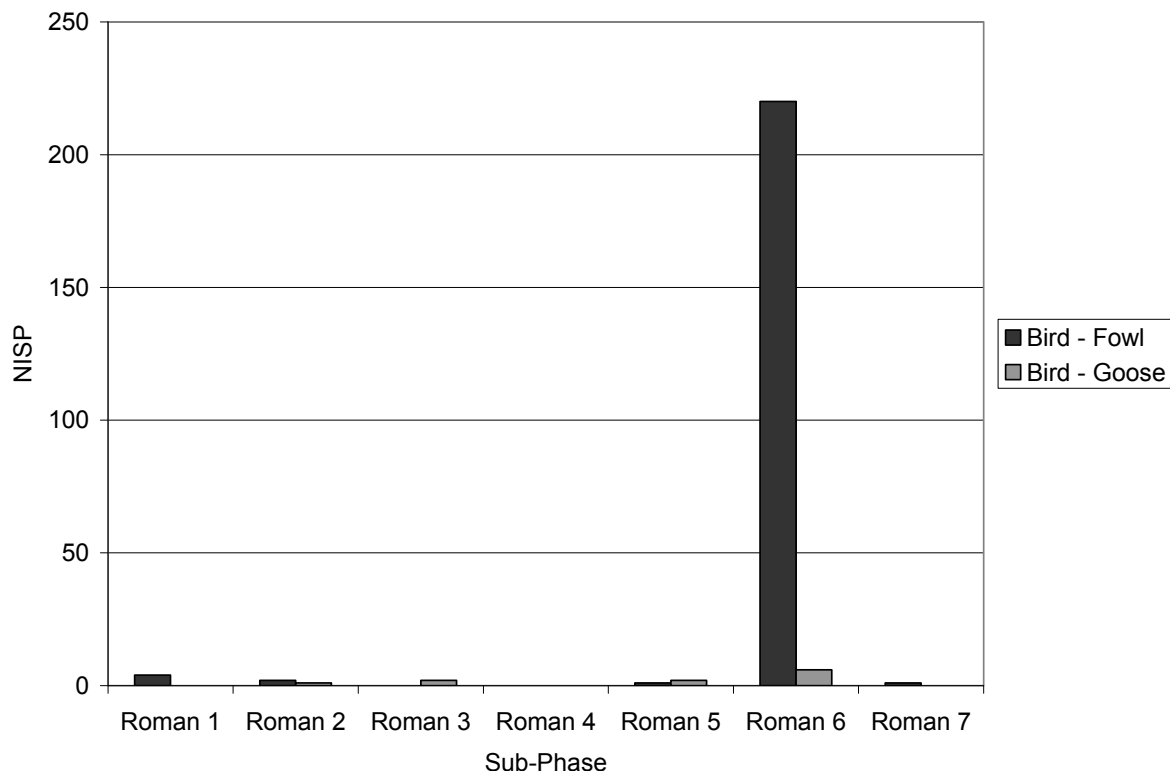


Chart 7: The relative abundance of fowl compared with goose in the Roman sub-phases

The fill of Roman Sub-Phase 6 Pit F1167 (L1168) produced the remains of at least six individuals. The metrical data show that the fowl were all large, although it must be stressed, certainly not all male (if indeed any males were present) as there were no spurs, or evidence of removed spurs, on any of the tarsometatarsi (TMT). A 'greatest length' (GL) measurement was only obtainable from one of these TMT. This measurement (GL:87.6mm) falls within the range seen at Roman Colchester (Curl 2002; Luff 1992), although it is on the larger end of the scale. The maximum GL of TMTs at Colchester was 104mm (the bulk being 69mm, 79mm and 81.5mm), so the Beck Row measurement is well within the Romano-British range, albeit on the large side. When comparing measurements of other elements (the humerus and femur) with the same elements from Roman contexts at Exeter (Maltby 1979a, 1979b) those from Beck Row are on average notably larger. The Beck Row metrical data were also compared to more extensive data from medieval deposits at Launceston (Albarella and Davis 1996); some of the Beck Row Roman fowl were larger than the maximum sizes for the medieval birds. Table 162 summarises the size ranges for fowl for each of the sites and elements mentioned.

Element	Roman Beck Row Size Range (mm)	Roman Exeter Size Range (mm)	Roman Colchester Size Range (mm)	Medieval Launceston Size Range (mm)
Humerus	75.8-88.1	60-70	64-75.8 (Head St)	58.6-81.5
Femur	74.5-94	65-90	67.4-88.2 (Head St)	66.6-92.0
Tibiotarsus	121-133	-	99.1-121 (Head St)	89.6-128.8
Tarsometatarsus	87.6	-	59-104 (<i>Most at 69-81.5</i>)	57.7-85.5

Table 162: Comparison of the range measurements for fowl from Beck Row with two Roman assemblages a medieval assemblage

The sizes of the fowl at Beck Row are clearly large, despite the apparent lack of obviously male bones. Given the small sample of tarsometatarsi, it might be assumed that at least some of the bones are male. Even so, the Beck Row size ranges are still large, with Roman Colchester (Luff 1992) being the only site to produce a larger individual. Given these differences, it might be suggested that there was some effort made at Beck Row to breed larger individuals. Given the larger specimens from Roman Colchester (*ibid.*) it is tentatively possible that there was better trade and import of higher quality stock into East Anglia or even within East Anglia itself. However, at the Romano-British small town at Scole, Norfolk (Baker 1998) fowl were at the lower end of the size range, being compared to small Old English game birds.

Metrical data from a neighbouring site (Curl forthcoming a) show that fowl were small and similar to those at Scole. Perhaps the size of fowl kept depended on trade links, wealth or just preference/ individual need; the notably small size of the other Mildenhall fowl (*ibid.*) might suggest the purposeful selection of the larger fowl found buried at the current site. The Roman writer Varro (Hooper and Ash 2006) documented three types of fowl: the *Barn-yard*, the *Wild* and the *African*, the latter being guinea fowl and the *Barn-yard* the most popular bird kept on farmsteads and the *Wild*, most likely, partridge (Hooper and Ash, 2006) or perhaps the small Bantam type. It is possible that at least some of the bones from the current site belong to the larger guinea fowl, which were introduced, along with pheasant, in the Romano-British period; separation of the different species of fowl can be difficult due to morphological similarities.

The range of elements include leg bones (femur and tarsometatarsus) and wing bones (humerus, coracoids and carpometacarpus), as well as wishbone (furcula) and other fragments, suggesting the disposal of whole carcasses. None of the remains showed any butchering, although little would be required if the birds were cooked whole. Some pathologies were recorded within the fowl assemblage: a tibiotarsus showed distortion and bowing, suggestive of rickets, which was also noted in Roman fowl at Colchester (Curl 2002; Luff 1992). Rickets also affects modern cage/ barn-raised birds and might indicate intensive breeding. A bony protuberance or lump was seen on a radius, the cause of which is uncertain. A femur showed some growth that might be attributed to arthritis or possibly an infection.

Goose

Goose was recorded from ten contexts, most of which were Romano-British in date while one was from Period III. Most of the bones are in the size range for domestic goose or the common greylag. One small goose was recovered from Roman Sub-Phase 6 Ditch F1919 and is comparable to the smaller Brent Goose. Geese were probably kept on site as a source of eggs and meat.

Crane

Five contexts produced examples of common crane (*Grus grus*). These include bones from Roman Sub-Phase 2 Gullies F3949 (L3950 (Seg.A)) and F4010 (L4011 (Seg.A)), including a chopped tibiotarsus. Several bones were also present in Roman Sub-Phase 2 Pit F4020 (L4021). Roman Sub-Phase 4 yielded a chopped fragment of tarsometatarsus from Ditch F4496 (L4497 (Seg.C)). Two more fragments were yielded by unphased Pit F4062 (L4064 (Seg.B)). Crane are large birds of wetland areas, fen and meadow and this species is likely to have been resident locally.

The Roman writer Apicius provided five recipes for the Crane, so this bird must have been quite popular on the Roman table. Crane have been found at other Roman sites including Lincoln (Alcock 2001), Colchester (Luff 1992) and York (O'Connor 1988).

Swan

Two contexts produced remains of Swan. Roman Sub-Phase 5 Ditch F1429 (L1431 (Seg.M)) produced an ulna which displayed multiple fine cuts and polishing, suggesting attempts at working, perhaps for a flute, although no holes are present in the section found.

A swan humerus was yielded by Roman Sub-Phase 6 Pit F4075 (L4076 (Seg.B)), which had been cut, showing use of the bird, probably for meat and perhaps feathers.

Duck

A single duck carpometacarpus from a probable mallard was present in Roman Sub-Phase 4 Gully F1711. These birds might have been kept as captive breeding stock, perhaps for eggs as well as meat, but they would also have been abundant in local wetland areas.

Whimbrel

A single humerus from a whimbrel (*Numenius phaeopus*) was found in Roman Sub-Phase 6 Layer/ Midden F3947 (Seg.P). This species is slightly smaller than its relation, the Curlew and is also found in similar habitats (saltmarsh, coastal sites and wetland areas). The humerus had been cut, attesting to the bird's utilisation. The whimbrel is a passage migrant and passes through Britain in spring (April-May) and autumn (July-September), reducing the times of the year that this bird could have been caught. Although not common in archaeological assemblages, this species would have been a frequent visitor to wetland areas and heathland. The bird would have weighed approximately 350-450g and may have been eaten. Butchered whimbrel has been found locally at Ipswich in association with Heron and Swan (Curl 2007b).

Associated Bone Groups (ABGs)

Roman Sub-Phase 6 produced the greatest number of Associated Bone Groups (ABGs), with five cattle burials (MNI: 5), four pig (MNI: 4), one sheep (MNI: 1), two dog deposits (MNI: 5), one horse (MNI: 1) and one deposit of chickens (MNI: 6). There is a single ABG from Period I, some burials or ABGs from Roman Sub-Phases 1, 2, 3 and 5, with several more burials assigned to Period III. A summary of the ABGs is presented in Table 163.

A particularly interesting selection of ABGs comes from Roman Sub-Phase 6. This is the burial of the remains of at least six individual fowl (mentioned above) in Pit F1167 (Fill L1168; Grid Square D8), which was made in the western quadrant of the site, in close proximity to the burial of a foetal/ neonatal lamb, along with a number of adult sheep elements (Pit F1219, Fill L1220; Grid Square E8). The skulls of adult and juvenile sheep and goat were also seen from Roman Sub-Phase 5 Ditch F1139 (=2212=2291), Fill L1140 (Grid Square D8-F11) along with another sheep/ goat limb from Fill L1141 (Seg.B) of the same feature, which might suggest some ritual activity, perhaps with offerings to Mercury in Roman Sub-Phases 5 and 6. There were two pig burials close by (Grid Squares G8 and G9), which, despite having been assigned to Period III, might be of a Romano-British date and associated with the ovicaprid and fowl burials; however there is no dating evidence to support this.

A lower leg (carpals/ tarsals, metapodials and phalanges) of a sheep/ goat was found in unphased Pit F4062; skinning marks were evident on this leg, suggesting tanning waste.

The Roman Sub-Phase 6 Layer/ Midden L3947 produced remains of several dogs, although these are disarticulated and not strictly ABGs – several different types are present and discussed above. Three Romano-British features (Ditch F1729 (=1760), Pit F1704 and Posthole F1758) also produced multiple canids. In addition, there were individual dog burials (see table 163). The disposal of multiple animals might suggest activity other than natural deaths, such as skinning, dog fights or even bear-baiting. While most would not generally associate smaller breeds with activities such as fighting, it is possible that this was the practice in Roman Britain; a similar range of canids were seen in a large dump at St Mary's Hospital, Colchester (Curl 2009). Some of the larger individuals from Colchester had been struck on the skull, presumably to kill them, and the culling of injured fighters was the main theory.

Period	Sub-phase	Feature	Context	Feature/ context type	SK/ limb	Species	MNI	Butchered	Pathology	Comments
I		4570	4571	Pit	Skull	Cattle	1	c		Skull, cuts around horn base and on frontal bone from skinning
II	1	4036	4037	Ditch	Partial skeleton	Canid				Adult – large canid – wolf sized
	2	4090	4091	Gully	Jaws Skull	Cattle Equid	3	c		Adult and neonate jaws. Equid skull fragments. Skinned cattle.
	2	1758	1759	Posthole	Part Sks/limbs	Canid	3	c		Skinned – cuts on mandible – larger canid
	3	1265	1247B	Ditch	Skull	Cattle	1	c		Adult skull fragments, cut on frontal bone
	3	1532	1563	Pit	Skeleton	Dog	1			Small dog, adult
	3	4196	4197	Pit	Skeleton	Canid	1		y	2 lumbar vertebrae distorted and showing arthritic changes
	5	1139 (=2212=2291)	1141B	Ditch	Limb (rear)	Sheep	2	c		With cattle and dog bones, cuts on ovicaprid phalanges in same fill. Adult and juvenile metapodials
	5	1139 (=2212=2291)	1140J	Ditch	Skulls	Sheep and Goat	3	c		1 adult goat, 1 juvenile goat, 1 juvenile sheep Skinned lamb.
	6	2344	2346	Burial (SK3)	Skeleton	Cattle	1	ch/c	y	Horncores removed, lesions on metapodials. Buried on side, E-W, head to east, front legs folded under, rear legs extended.
	6	4212	4213	Pit	Skull	Cattle	1			Neonatal – head and hooves missing
	6	2399	2400	Burial (SK2)	Incomplete Skeleton	Cattle	1	ch, c		Juvenile skeleton. Chops and cuts on the frontal bone from removal of the horns. Aligned W-E, legs extended, feet missing.
	6	4546	4547	Pit	Skeleton	Cattle	2	c		Cuts on mid-shaft of metacarpal from skinning, calcanei from another individual. Semi-articulated, head roughly to the north, rear end to the south.
	6	2407	2408	Pit	Skeleton	Pig	1	c	y	Juvenile. Skinned
	6	4540	4541	Pit	Skeleton	Pig	1		y	Juvenile. Rotated P4, lipping on vertebrae – injury? Animal on side, head pointing south.
	6	1175	1176	Pit	Skeleton	Pig	1			Juvenile Buried on side W-E, with head to west
	6	2452	2453	Pit	Skeleton	Pig	1			Juvenile
	6	1729 (=1760)	1730B	Ditch	Partial skeleton	Canid	2		y	Older animal, worn teeth – larger canid, also a small dog. One Wolf sized, One Italian Greyhound type.
	6	1704	1739	Pit	Mixed	Canid	3			Most mature individuals Inc Italian Greyhound type
	6	1219	1220	Pit	Mixed/Sk	Sheep	2	c	y	Mature adult skull, rib, vert and limbs and foetal
	6	5045	5046	Ditch (SK15)	Skeleton	Equid	1			Small individual, adult – pony of 12.5 to 13HH Aligned NW-SE. On side, legs folder under and hooves meeting under body.
	6	1167	1168	Pit	Mixed	Fowl	6		y	Females. Lump on radius, infection or arthritis/injury in femur
	6	3947	3947	Layer	Mixed	Canid (and other)	5	c, ch	y	Inc Wolfhound, Mastiff, Collie, Italian Greyhound and Maltese. Found with waste from cattle, s/g, pig, equids and birds (inc Whimbrel)
III	Med	4188	4189	Pit (SK10)	Skeleton	Cattle	1			Neonatal calf (and 2 adult teeth which may be residual). Head to W/NW, rear feet to SW, front legs under body, rear legs extended.

	PM	4455	4456	Pit (SK12)	Skeleton	Cattle	2	ch	y	Horncores removed, mostly one skeleton and additional cattle tooth. Lesion on metapodial. SH = 128/9. Legs removed and placed on top near animals head, body positioned on front.
		4457	4458	Pit (SK13)	Skeleton and other parts	Cattle	2	ch, c	y	Juvenile skeleton and parts (feet and jaws) of adult. Cuts on frontal bone from skinning, horns removed. Lesions on metapodials. SH = 132-136. Legs removed and placed on top of body.
		2440	2441	Pit (SK5)	Skeleton +	Pig	2			Juvenile skeleton and additional radius. Aligned E-W, legs folder under.
	PM	1125	1126	Pit	Skeleton	Pig	1	c	y	Juvenile, Infection on mandibles. Skinned.
	PM	2458	2459	Pit	Skeleton	Pig	2			Incomplete skeleton and additional limbs from 2 nd individual. Juvenile. 'Twisted' and on side.
		4577	4578	Pit (SK14)	Skeleton	Pig	2			Juvenile skeleton and skull and mandible of neontala/late foetal. Aligned SE-NW.
-		4062	4064B	Pit	Lower leg/foot bones	Sheep /goat	1	c		Metacarpals, metatarsals, proximal, intermediate and distal phalanges, cuboids

Table 163: The animal bone groups (ABGs), skeletons and articulated remains (listed by period, sub-phase and species)

Cattle burials and skulls were seen in Periods II and III. There are similarities between the remains from the two periods, including skinning and horn removal, which might suggest the remains are of a similar date, although there is no dating or stratigraphic evidence to support this. Some remains are of skulls alone. These have had their horns removed which might suggest general primary butchering waste rather than 'ritual' offerings or decoration, which usually comprise complete skulls. The neonatal remains from Pit F4212 (Roman Sub-Phase 6) were recovered without the head. The absence of small foot bones was also noted and might be a recovery bias. However, the absence of both foot and head elements would suggest the calf was skinned prior to burial.

Four juvenile porcine skeletons were found in Roman Sub-Phase 6 Pits F1175, F2407, F2452 and F4540. A further four juvenile pigs/ boars were recovered from Period III features (Pits F1125, F2440 (SK5), F2458 and F4577 (SK14)). As with the cattle, it is interesting that there are several similar burials split into two periods; it may be that all are from the Romano-British period. More details of the most interesting of these burials are given below.

A reasonably complete young pig/ boar skeleton was recovered from Roman Sub-Phase 6 Grave F1175 (L1176). The skull greatest length measures 210mm, the (left) mandible GL:180. The Dp4 is in wear, little wear is evident on the DM1 (TWS:B-C) and the DM2 is un-erupted on the mandible. The upper jaws have the DM1 at TWS: D-C and the DM2 is erupted, but shows little wear. No butchering was seen on any of these young porcine bones.

A juvenile porcine skeleton was recovered from the Roman Sub-Phase 6 Grave F4540 (L4541). This skeleton is reasonably complete and in good condition. Two pathologies were noted: a rotated P4 in the right mandible and a degree of lipping around the ventral edge of one unfused lumbar vertebrae. Lipping of vertebrae is typical of arthritic problems and expected in older animals or those under strain, but is unusual in such a young animal; such changes might suggest an injury to the back, perhaps from rough management. This animal may also have been skinned as there is a knife cut on one calcaneus.

An incomplete pig skeleton was found in Period III Pit F1125 (L1126). Elements present comprise skull fragments, left and right mandibles, isolated teeth, complete femur, tibia, calcaneus, talus, metapodials, phalanges, most vertebrae, pelvic bones, ribs and miscellaneous fragments. The skeleton is from a juvenile with unfused elements. The porous and fragile nature of such young bones has resulted in a high degree of fragmentation, wear and erosion on surfaces. The teeth present and the lack of bone fusion indicate an animal of around six months of age. Some swelling around the lower lost first molars would suggest a probable infection into the (probably sore) gums, which may have resulted in the premature death.

The skeleton of another young animal (SK14) was encountered in Period III Grave F4577 (L4578). Interesting is the presence of a foetal skull in the same fill, which might suggest a young animal that had died giving birth. It is possible that this animal had suffered with an infection as no evidence of butchering was present, although this was not apparent on the skeleton; the possibility of this individual being part of a sacrifice has to be considered.

Only a single equid burial (SK15, F5046) was found, comprising an adult animal from Roman Sub-Phase 6. Metrical data indicate an animal of 12.5 to 13 hands high, a range suggesting a medium sized breed of pony. This pony shows no butchering and does not appear to have even been skinned. It also appeared to have been buried with some care, head to the north and tail to south with the rear legs folded forward and front legs folded back, so that the feet cross under the animal. It is possible that this was a sacrificial animal; a simple cut to the throat to kill it would not necessarily leave any evidence. Horses were slaughtered for human consumption as part of northern European Paganism (Jones and Pennick 1995), but it would appear none of the animal from F5046 had been eaten. Alcock (2001) states that the Romans did not like eating horseflesh and that these animals were kept for riding, pulling carriages and racing, and generally not for food. It is possible that there was a plentiful supply of meat at the time of this equid's burial and consumption could be avoided.

The carcasses of sacrificed animals are likely to be disposed of quite quickly (Alcock 2001) and the lack of weathering or gnawing on the animal burials from the former Smoke House Inn might support this theory. Equally, those animals suffering disease (or at least thought to be) would also have a rapid burial and, as with humans, not all diseases leave evidence on the skeleton.

Discussion

Cattle was the most commonly occurring domestic species in the Romano-British period and appears to be represented by various breeds, ranging from the diminutive Dexter-type to beasts larger than those seen at many Roman sites in the area, including other sites in Mildenhall itself (Curl forthcoming a). Given the larger size of cattle from the current site, we might suggest selective breeding or the selection of larger individuals for a specific purpose – perhaps feasting or sacrifice – or simply the culling of large males that had been used for traction and become lame. It certainly seems likely that the cattle at this site were being used for traction, as is indicated by the pathologies present, which is consistent with other Romano-British sites both locally and nationally. These animals would have also been kept for breeding, as indicated by the presence of neonates in the assemblage and for other by-products such as hide and horn.

Sheep/ goat were the second most abundant domestic species until the later Romano-British period, but did not appear to ever gain greater economic importance. The remains included both sheep and goat, which would have been raised for wool, breeding, milk and meat. The evidence also suggests the use of hides and horn. There appears to have been increased demands for milk during Roman Sub-Phase 6, reflected by an increase in the number of juvenile and neonatal remains. Some manner of stress on the sheep population in this sub-phase was also indicated by 'thumbprint depressions' (often associated with over-breeding or over-milking; Albarella 1995) on one sheep horncore.

Pigs at the site had a primary use for meat, again typical of most sites and all periods. The on-site breeding of pigs was indicated by the many juvenile, neonatal and even foetal individuals present. There appears to have been an increase in the importance of pigs in the later Roman and post-Roman periods, as has been seen at

other sites including West Stow (Crabtree 1990), some 13km to the south-east. Pigs produce large litters on a regular basis and would have provided a good source of meat.

Fowl from the site are interesting both in terms of the deposit of at least six birds in Roman Sub-Phase 6 Pit F1167 (L1168) and the large size of these individuals. The remains are notably larger than examples from Roman Exeter (Maltby 1979a, 1979b); however, they are within the range of remains from Roman Colchester (Luff 1992), perhaps suggesting local trade of improved stock or even the importing of better stock into East Anglia during the Romano-British period. A pit at Lion Walk, Colchester did yield nine adult and three immature fowl, though these were medieval in date and were thought to be from cockfighting (Luff 1992). It is possible that the Beck Row group derive from similar sporting activities – cockfighting was most probably introduced to Britain during the Romano-British period (Collins *et al.* 2005, 69) – although their close proximity to a selection of ovicaprid remains might also suggest an offering to Mercury.

The presence of a broad range of dogs in the Romano-British period was also seen at Colchester (Curl 2009; Luff 1992), including a good number of bones from small or 'toy' breeds. Some of these smaller breeds have also been found at other regional sites including Hanford Road, Norfolk (Curl 2007b) and Mildenhall itself (Curl forthcoming a). Once again, as with the fowl, the multiple occurrences of these miniature breeds might indicate local breeding and/ or regional trade. The presence of two similar, new dog breeds on neighbouring sites might also indicate their simultaneous importation from Italy, perhaps as pets or status symbols. However, the local, possibly intensive breeding of dogs is further attested by the occurrence of rickets in two dogs from Roman Sub-Phase 3, perhaps suggesting breeding in kennels. The presence of small 'lap-dog' breeds is consistent with findings from Roman Colchester (Curl 2009; Luff 1992), where the St Mary's Hospital site yielded the skull and limb bones of a probable Maltese Terrier (Curl 2009). Other examples of Roman small dogs are known from York Road, Leicester (Baxter 2002) and further afield from Bavenstedt, Lower Saxony (a small, Pomeranian-type) and Tunisia (MacKinnon and Belanger 2002). The Tunisian dog is smaller than the York Road specimen and has a less robust, more rounded, shorter-nosed skull. The Maltese Terrier was known to have been kept by Publius, the Roman governor of Malta, who prized his Maltese (named 'Issa') so highly that he commissioned a portrait of it and had poetry written about it by the poet Martial (Brewer *et al.* 2001).

The disposal of multiple canids, including smaller breeds of dog, might suggest activity other than natural deaths, such as skinning, dog fights or even bear-baiting. While one would not necessarily associate smaller breeds with fighting, it is possible that they were used in this way during the Romano-British period. A similar range of canids was encountered in a large 'dump' at St Mary's Hospital in Colchester (Curl 2009); many of these larger dogs had suffered consistent and significant damage to the same point on the skull and they were interpreted as culled fighting dogs (*ibid.*).

Hunting and fishing do not appear to have been important for subsistence at this site. However, the lack of small elements in the assemblage may result from a recovery or preservation bias. Certainly, the evidence suggests that deer (both red and roe) were hunted for their hides, meat and antler, and that naturally shed antlers were

collected for working. Hare was also occasionally eaten and this species was probably utilised for fur. A small number of wild bird species were also encountered though, overall, a broader range species might have been expected.

Conclusions

The faunal assemblage from the former Smoke House Inn is of mixed origin. The bulk of the assemblage is derived from primary and secondary butchering and food waste. Most meat appears to have been provided by cattle, a species also utilised for traction until approximately four years of age and probably becoming lame (suggested by observed pathologies); after culling they provided meat, skins, horn and other by-products. Some improvement was seen within the cattle assemblage and it is likely that more than one breed was kept. Both sheep and goat were also kept, most probably for their milk, wool, dung and other by-products. Pigs (and perhaps boar) appeared to have had a minor role in the Romano-British economy of the site, while an increase in the numbers of this species was noted in the medieval to post-medieval period (Period III). Domestic birds (fowl and geese) appeared to have contributed some meat and would have supplied eggs, but they were not present in any great numbers, with the exception of the probable ritual deposit of six large fowl in Roman Sub-Phase 6. A range of equids were kept, with ponies and some small horses present throughout the Roman sub-phases, although no real evidence for selective breeding or improvement was noted.

Neonatal remains provide clear evidence for the on-site breeding of the main domestic ungulates, and it is likely that the site was self-sufficient in terms of meat production. With the equids, while juveniles were present in the Romano-British period, these were not especially young animals and there is no suggestion of on-site breeding before Period III, possibly suggesting that the Roman period equids were imported to the site from elsewhere. In contrast, the local breeding of dogs was strongly evidenced in the Romano-British period with animals ranging in size from diminutive toy terrier-type animals to the large wolfhound type.

There are numerous animal burials, with the reasons for these burials remaining somewhat unclear as there are similarities in burials and many are in close proximity but with differing dates. Some of the remains, especially those of the fowl and sheep/goat skulls in the western area of the site, that may well be of a 'ritual' origin and suggest some form of religious practice taking place at the site.

5.9 The human remains

Julie Curl

Introduction

A single skeleton of a human baby was recovered and miscellaneous pieces of human skeletal remains, along with an unstratified urned cremation and a cremation from a 4th century ceramic jar from a pit in Roman Sub-Phase 6.

Methodology

The human remains were recorded following modified guidelines produced by English Heritage (Mays 2004) and the IfA (Brickley and McKinley 2004). All of the bones were quantified by skeleton number or context and an estimate of the minimum number of individuals was recorded based on counts of the most frequent elements present and the ages of those present. All elements were examined for any pathologies, genetic traits and modifications which were recorded, noting the location on the body. Bone fusion and tooth wear were noted when possible to allow estimation of ages following Brothwell (1981). Full recording was made on skeleton record sheets and data input into an MS Excel spreadsheet; summary tables of these data are presented below (Tables 164-5) and a full catalogue is available as an Excel file in the digital archive.

The Neonatal Burial

Small Pit F1600, measuring 0.60 x 0.30 x 0.50m, contained the remains of an infant inhumation burial dating to the early-mid/ late 4th century AD (Roman Sub-Phase 6). The remains amounted to 115 pieces of bone, weighing a total of 68g. The elements found included the skull, atlas vertebrae, clavicle and scapula fragments, ribs, vertebrae, arm and leg bones. The surviving bones are fragile, but in good condition, although there is some erosion of the ends of the bones and many are fragmented; fragility is expected with bones of such a young individual. The size of the bones would suggest a full-term neonatal child (following Bass 1995; Schaefer *et al.* 2009). The possibility of a still-birth or trauma at birth is very likely as the baby is very young. There is no obvious cause of death visible on the remains.

There has clearly been an element of ceremony and grieving with this child. The cut of the pit itself seems unnecessarily large for such a young baby, perhaps suggesting the inclusion of 'bedding' such as a sheepskin or blanket.

The Isolated Unburnt Remains

Five vertebrae, four pieces of skull and miscellaneous fragments were produced by Ditch F3502 (L3503 (Seg.B)). The vertebrae consist of the atlas, axis and three cervical elements (C4, C5 and C6). The three cervical vertebrae and the axis all show signs of osteoarthritis, with marginal lipping and some osteophytes. Causes for osteoarthritis can be initiated by trauma or as a result of age, genetic predisposition or mechanical stress.

SK8 from Grave F2731 (L2732) comprised ninety-two fragments of bone, weighing 29g. The remains consist of erupted and un-erupted teeth and skull fragments and several unidentifiable pieces; a single small mammal (cat/ hare) limb fragment was also present in the fill. The human remains are from a juvenile; the range of teeth suggests a child aged approximately six to seven years.

SK9 (Grave F3289 (L3290)) produced highly fragmented and eroded remains, with few diagnostic elements. Complete (but some broken) hand bones (3rd metacarpal, 5th proximal phalanx and intermediate phalanx) were seen, along with a fragment of a femur head and skull fragments. The bone from this grave is in poor condition with

eroded surfaces. The fragments are all incomplete and did not allow any estimation of stature, sex or age (other than these are the remains of an adult).

A further seven contexts produced isolated neonatal bones and two produced adult elements.

The Cremated material

Cremation 1

Two bags of bone from (Cremation 1) from Pit F1068 (Fill L1071; sample <8>) were recovered from a ceramic shouldered jar. This cremation was tentatively assigned to Roman Sub-Phase 6 on stratigraphic grounds (Mustchin *pers. comm.*). The cremation comprises 427 pieces of bone, weighing 399g. The material consists of burnt and unburnt fragments of skull, upper and lower limbs, pelvis and scapula, with few articular fragments present. The bones are those of an adult, but no diagnostic pieces were present that could allow a more accurate determination of age or sex.

Unstratified Cremation

Two bags of unstratified cremated bone were included in the analysis. These had been recovered from a large bowl jar dating to between the 2nd and 4th centuries AD. The remains amounted to over 1200 pieces, weighing 1355g. Numerous large pieces are included in the remains. Identifiable elements comprise fragments of skull, vertebrae, mandible, upper and lower limb bones, elements of the feet, hands and pelvis. Included are a large number of smaller fragments and powder. The remains are clearly those of an adult, but it has been impossible to determine a more precise age or sex. No recognisable faunal remains were seen in this cremation.

A single pathology was noted on the cremated bone, with some lipping on a vertebrae (as a result of osteoarthritis), suggesting this was probably an older individual.

Cremation Size

Cremation 1 produced 427 pieces of bone, amounting to 399g. The material from the unstratified bowl jar totalled 1355g and consisted of more than 1200 pieces.

The size of a cremation depends on the individual (age, sex, body mass, bone density), the extent of bone recovery from the pyre site and during excavation, as well as on the rate of bone preservation (McKinley 1993).

The material from Cremation 1 is on the lower end of the range in terms of weight. Given that not all of the bone was fully cremated, it would be expected that a greater weight of bone would be recovered. Also, vessel cremations are usually better preserved, which would suggest that the remains from this jar represent an incomplete individual. It is possible that the cremation was ineffective due to poor weather conditions and that there were problems with collection of the remains.

The weight of the unstratified assemblage is in the middle of the weight range in comparison to other archaeological cremations (range: 57 to 3000g; McKinley 2000) and similar in comparison to a modern cremation (1000 to 3600g; *ibid.*). Cremations in containers are normally larger than cremations in pits and finely crushed cremations tend to be smaller due to poor preservation. The size of this cremation may be due to a range of factors including loss of the volatile portion of bone before burial as well as post-depositional bone decay and incomplete retrieval of the cremated bone from the pyre site.

Bone Colour

The colour of cremated bone depends on a range of factors including the maximum temperature reached, the length of the cremation process, the type and amount of fuel, the quantity of oxygen, the amount of body fat and the degree of uniformity of exposure to the heat across the body. A correlation has been found between the temperature attained and colour changes. Cremated bone can exhibit a large range of heat-induced colour variation from normal coloured (brown, unburnt), to black (charred: c. 300°C), through hues of blue and grey (incompletely incinerated: up to c. 600°C) to fully oxidised white (> c. 600°C; McKinley 2004).

The majority of bone in the unstratified cremation was fully oxidised, i.e. exposed to temperatures in excess of c. 600°C. A few fragments retained some typical brown colour (unburnt bone), which might suggest these fragments were to the edge of the cremation, mixed with other material or residual remains. In contrast, the material from Cremation 1 had only approximately 50 per cent of the bone fully oxidised (white), with approximately 30 per cent of the remains showing only slight charring or no burning.

Surface Changes

Surface changes such as warping, cracking and fissuring were noted throughout with the fragments of 10mm or larger in the unstratified remains and on approximately 40 per cent of the bone in Cremation 1. These are characteristics of cremated bone and are produced during the process of dehydration undergone by bone exposed to heat. The pattern of heat-induced changes in bone colour and texture can be exploited to infer the technological aspects of the ritual, the condition of the body at the time when the cremation process took place and the nature of post-depositional disturbance (Shipman *et al.* 1984).

Fragmentation

The fragmentation of bone resulting from the cremation process may be increased by funerary practices such as raking and tending of the pyre, collection of bone at the pyre site and deliberate crushing prior to burial, as well as by post-depositional processes, excavation and processing (McKinley 1989).

Overall, the cremated bone in the unstratified cremation and Cremation 1 has undergone a low to average degree of fragmentation. The degree of bone fragmentation is less than that generally seen in archaeological cremations where an average of 50 per cent of bone fragments are over 10mm in size (McKinley 1994).

This is expected with the use of cremation urns, which offer some protection to the burnt fragments. Many fragments in both Cremation 1 and the unstratified material measure over 30mm, with numerous fragments in excess of 50mm, which might suggest little maintenance of the pyre and perhaps adverse weather conditions affecting complete burning.

Discussion, Comparisons and Conclusions

The human bone assemblage consists of a neonatal burial, a child and adult burial, an adult cremation and the isolated remains of other adults and neonates. The animal bone assemblage from the Romano-British Settlement at Hacheston, Suffolk (King 2004) and from Sawston in Cambridgeshire (Curl 2011) produced neonatal human bones with animal waste. Many other Romano-British sites have yielded such finds and it would appear that it was a relatively common and possibly acceptable practice to dispose of neonatal children without the ritual and ceremony afforded to older individuals (Scott 1990).

Infant burials are not uncommon from Romano-British sites, often seemingly deposited with the remains of food waste or other rubbish. The infant burial from the current site was found within an isolated, small pit, presumably prepared for the child. The number of infant burials on excavations would suggest that infanticide was commonly practiced in Britain (Allason-Jones 1989) but figures may be deceptive. Infanticide or even abandonment was a method of dealing with unwanted pregnancies for prostitutes (Knapp 2111) as abortions, although sometimes carried out, were considered dangerous by medical writers. Miscarriages and still births may have been common in the Roman period due to infections, lifestyles and perhaps poor diet; infections could affect the mother and baby from a range of sources, from water and milk to poorly cooked meat as well as physical strains possibly contributing to spontaneous miscarriage. In this case it is assumed that the mother survived the birth, otherwise the baby might have been buried with her, as was seen within a burial at Sawston, Cambridgeshire (Curl 2011) where an adult female was buried cradling a neonate. Romans did not always bury their infants in cemeteries with adults and older children, but within settlement areas in pits and ditches, under floors or eaves, in enclosures or sometimes in special infant cemeteries (Gurney 1998).

Urned cremations are common throughout the Roman period, with remains interred in a variety of ceramic vessels, while burial areas of this time can include a variety of complete burials and cremations. The size of the cremation from the unstratified urn appears a little below average compared to both archaeological and modern material, though the colour of the bone indicates the remains were burnt at a high temperature and fully oxidised. The cremated remains are clearly those of an adult, but there is insufficient information to determine sex or a more precise age. There is some lipping apparent on one vertebrae, which is likely to suggest that this is an older individual. The remains from Cremation 1 are of low weight compared to both archaeological and modern material, despite being interred in an urn. The low weight of Cremation 1, combined with the relatively low number of fully oxidised remains might suggest a less than successful cremation, perhaps due to adverse weather conditions, perhaps with pyre maintenance or wet weather affecting the burning and collection of remains.

Context	Feature	Type	Date	Other No.	Male/ Female	Age	Condition	Completeness	Side	Count	Weight (g)	Comments
1283	1282	Ditch	2nd - 4th	A		N/P	good	inc	r	1	5	right pelvic bone - neo/pre
1601	1600	Pit	Roman 6			N/P	good	inc	legs	4	12	2 femurs, 2 tibias
1601	1600	Pit	Roman 6			N/P	good	inc	loose bone	16	6	
1601	1600	Pit	Roman 6			N/P	good	inc	arms + scaps	11	14	
1601	1600	Pit	Roman 6			N/P	good	inc	ribs + vert	41	14	
1601	1600	Pit	Roman 6			N/P	good	inc	skull	47	34	
1941			Roman 4	G		N/P	good	comp	l	1	5	Left pelvic bone - neo/pre
2175	2174	Ditch	Roman 5	D	M	A	good	inc	c	1	22	right mandible frag, teeth missing
2732	2731	Grave	Roman 2	SK8		J	good	inc	c	16	9	unerupted teeth and skull fragments
2732	2731	Grave	Roman 2	SK8		J/A	fragmented	inc	mixed	76	20	inc small mammal tibia fragment
2953	2952	Gully	Roman	B		A	good	inc	r	1	30	tibia shaft fragment
3155	3154	Gully	Roman	E		N/P	good	comp	r	1	8	neo/prenatal humerus
3290	3289	Grave	Roman 3	SK9		A	poor	inc	u	1	2	from sieved material
3290	3289	Grave	Roman 3	SK9		A	eroded/ poor	inc	l, u	39	28	femur frags x 2, other small frags, labelled 'legs'
3290	3289	Grave	Roman 3	SK9		A	eroded/ poor	inc	c	62	79	mostly small frags of skull, labelled 'head'
3290	3289	Grave	Roman 3	SK9		A	eroded/ poor	inc	c, l	82	105	hand bones, femur head
3503	3502	Ditch	Roman 3	B		A	good	inc	c	13	81	atlas, axis and three cervical vertebrae with osteoarthritis
3598	3597	Gully	Roman 2			N/P	good	inc	r	1	3	neo/prenatal proximal femur
3602	3601	Ditch	Roman 2	C		N/P	good	inc	l, c, r	4	7	whole right tibia, proximal left tibia, pelvic bone
4103	4102	Ditch	Roman 3			N/P	good	inc	l	1	4	proximal femur from neo/prenatal
4390	4389	Ditch	Roman 2	B		N/P	good	inc	c	3	6	parietal fragments
4486	4485	Pit	Roman 6			N/P	good	inc	l	1	4	left tibia, distal end missing

Table 164: Summary catalogue of the human burials and isolated human remains recorded by individual bags

Context	Total Weight (g)	>50mm	>10mm	5-9mm	2-4mm	<1mm	Level	Warp	Crack	Species	Total Count	Adult	Juvenile	MNI	Element range	Comments
U/S	349		20	55	15	10	w, g	*	*	hsr/mam	349				Limb, vert, skull	many small fragments and powder. Adult.
U/S	1006	35	40	15	5	5	w,g,b	*	*	hsr/mam	1006	1			Limb, skull, mandible, feet, hands, pelvis	some frags 60mm+, arthritis on vert.
1071	399	93	104	146	79	5	u, w, b-g	*	*	hsr	427	1		1	Limb, skull, pelvis, scapula	some powdered bone included in weight.

Table 165: Summary catalogue of the cremated remains. Key: Level = Level of burning; w = white (fully oxidised); g = grey; blk = blackened; b = brown (unburnt)

5.10 The charred plant macrofossils and charcoal

Dr John Summers

Introduction

During excavations at the former Smoke House Inn, Beck Row, a detailed programme of environmental archaeological sampling was implemented. In total 387 samples (8925 litres) were taken and processed for the recovery of charred plant remains. Samples were present from all three major phases in the site's history, although the majority (288, 75%) were from Roman deposits (Table 166). Sample sizes ranged from 10 to 100 litres based on a sampling strategy designed to obtain analytically viable assemblages of charred plant macrofossils.

Phase		Number of samples	Volume (litres)
Period I: pre-Roman		5	110
Period II: Romano-British	Roman Sub-Phase 1	22	580
	Roman Sub-Phase 2	64	1675
	Roman Sub-Phase 3	33	930
	Roman Sub-Phase 4	24	720
	Roman Sub-Phase 5	55	1490
	Roman Sub-Phase 6	80	1690
	Roman Sub-Phase 7	10	280
Period III: post-Roman		8	270
Un-phased		86	1180
Total		387	8925

Table 166: Distribution of samples taken for charred plant macrofossils by phase

Following an assessment of the bulk sample light fractions, 82 were selected for full quantification. Samples were selected which were likely to contain at least 30 charred macrofossil specimens in order to allow the greatest degree of reliability from the widest range of deposits. In addition, seven samples were selected for charcoal identification, two of which were not part of the macrofossil analysis.

Methodology

Samples were processed at Archaeological Solutions Ltd, Bury St. Edmunds, using a Siraf type flotation tank. The light fractions were captured in a 250µm mesh, while the heavy fractions were sieved to 500µm. The light fractions were sorted using a low-power stereomicroscope (x10 – x30 magnification). The carbonised macrofossils were identified using reference literature (Cappers *et al.* 2006; Jacomet 2006) and a reference collection of modern seeds. All cereal grains, chaff and seeds of other non-cereal taxa were fully quantified, while other items were recorded using a semi-quantitative scale (X = present, XX = common and XXX = abundant). Potential contaminants, such as modern roots, seeds and invertebrate fauna, were quantified using the same semi-quantitative scale in order to better understand the potential effects of bioturbation on the deposits.

Charcoal fragments retained in the 2mm or larger sieves were fractured by hand and transverse sections characterised using low power microscopy (x10-x30 magnification). Tangential and radial sections were examined using a high power incident light metallurgical microscope (x40-x400 magnification) and identifications were made using reference literature (Schweingruber 1978; Schoch *et al.* 2004). Quantification was through specimen counts and weight measurement.

Results

Only samples from phased contexts containing 30 items or more are tabulated in this report (Tables 167-170¹¹). The full data tables (including assessment data) are housed in the project archive. Table 171 provides phase summaries for all 82 samples fully quantified as part of this investigation and Table 172 presents the results from the charcoal identification.

Period I: pre-Roman

Five bulk samples (110 litres) were taken from deposits attributable to Period I. The assessment revealed that the density of material was very low and none were investigated further. Two samples (S345 of L4531B and S353 of L4611) contained indeterminate cereal fragments and a few awn fragments. In addition, seeds of goosefoot (*Chenopodium* sp.), plantain (*Plantago* sp.), chess (*Bromus secalinus* type) and other indeterminate wild grasses (*Poaceae* indet.) were present. These could represent part of an arable weed community but the Period I assemblage is too small for further comment.

Period II: Romano-British

Of the 288 samples attributable to the Romano-British period, 213 (74%) contained cereal remains in some form (grains or chaff; see Chart 8). Of these, 80 samples were considered sufficiently rich for further analysis and quantification. Deposits from all seven Roman sub-phases were represented, allowing the investigation of variation over time.

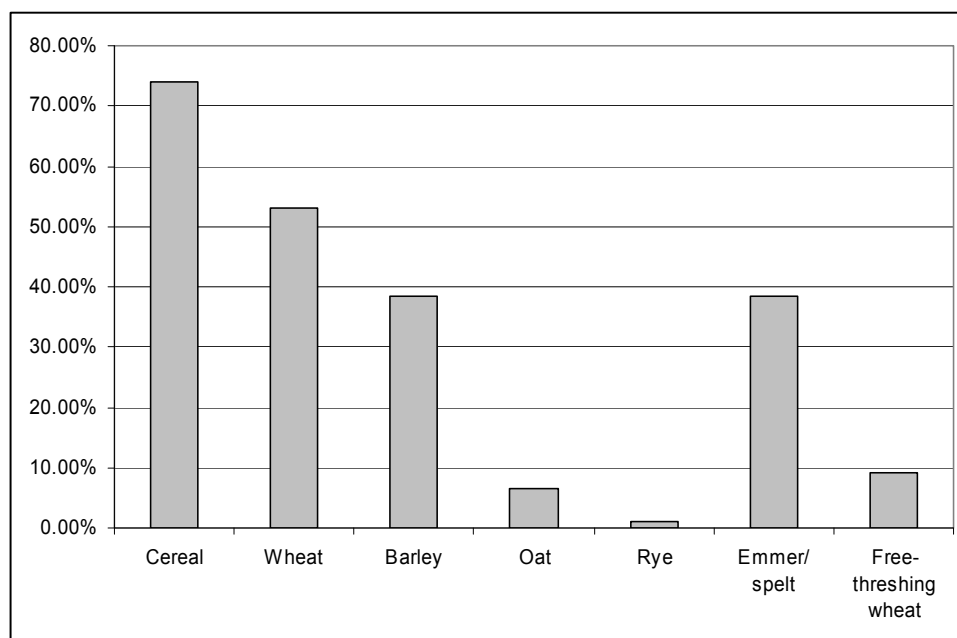


Chart 8: Ubiquity of cereal taxa for all Period II (Romano-British) samples (N=288, incorporating assessment data)

¹¹ Tables 167-172 are included electronically as MS Excel spreadsheets (see Data CD)

The assemblage of cereal taxa was quite consistent throughout Period II. Wheat (*Triticum* sp.) and barley (*Hordeum* sp.) grains were the most commonly encountered remains, along with occasional oat (*Avena* sp.) and rye (*Secale cereale*) grains. The majority of the wheat grains which could be identified more precisely were of a glume wheat type (*T. dicoccum/ spelta*), with the vast majority of glume bases indicating the dominance of spelt (*T. spelta*). A small number of emmer wheat (*T. dicoccum*) glume bases were present but these could represent a low-level weed contaminant of a primary spelt crop. In addition to glume wheat, short rounded grain reminiscent of free-threshing type wheat grains (*T. aestivum/ compactum* type) were also recorded. Two bread wheat (*T. aestivum* sl) rachis segments were identified in Roman Sub-Phase 1 Pit Fill L1777, confirming the presence of this taxon, although such rachis finds were very restricted in their distribution. It is possible that a number of the free-threshing type grains were poorly preserved short spelt grains, similar to those which were recorded in the Danebury Environs (Campbell 2000, 50-51; Campbell 2008a, 66). Some short, fat glume wheat grains were positively identified in Beck Row samples.

Most of the better preserved barley grains were of a hulled variety, with asymmetric grains and a few rachis segments indicating the presence of hulled six-row barley (*H. vulgare* var. *vulgare*). The number of asymmetric grains was considerably lower than the 2:1 ratio expected in a six-row barley crop but it is possible that distortion of many of the grains during carbonisation made the accurate recognition of lateral barley grains more problematic. The single naked barley grain in sample 23 of Ditch Fill L1140G (F1139) could represent a weed contaminant or variation within the hulled barley crop. No oat floret bases were present to determine whether a wild or cultivated oat species was represented.

Wheat grains accounted for 49.98% of the identified cereal grains from Period II, with barley accounting for 47.95%. However, taking into account all 288 samples from Period II, wheat was more ubiquitous, being present in 153 samples (53.13% compared to 38.54% for barley - Chart 8) and were dominant in 65% of the 46 samples containing over 30 identified items. The high ubiquity of cereals at this time is indicative of their frequent exposure to fire and incorporation into deposits across the site.

Other potential cultivars were flax (*Linum usitatissimum*) from Roman Sub-Phases 2 (L1396A of F1393) and 6 (L1741 of F1704) and possible pea (cf. *Pisum sativum*), along with indeterminate large legumes (Fabaceae indet.), from Roman Sub-Phases 1 (L1323 of F1322) and 6 (L3606 and L3741 of F3605). Neither was present in high concentrations, although these taxa are often poorly represented in charred macrofossil assemblages.

A wide range of wild plant taxa were represented in the Period II assemblage. A significant proportion of these are likely to have grown as arable weeds, including opium poppy (*Papaver somniferum*), common/ long-headed poppy (*P. rhoeas/ dubium*), small nettle (*Urtica urens*), fat hen (*Chenopodium album*), goosefoot (*Chenopodium* sp.), common chickweed (*Stellaria media*), campion (*Silene* sp.), knotweed (*Persicaria* sp.), knotgrass (*Polygonum aviculare*), black bindweed (*Fallopia convolvulus*), dock (*Rumex* spp.), wild radish (*Raphanus raphanistrum*), vetch/ wild pea (*Vicia/ Lathyrus* sp.), henbane (*Hyoscyamus nigra*), field gromwell

(*Lithospermum arvense*), possible ground-pine (cf. *Ajuga chamaepitys*), eyebright/bartsia (*Euphrasia/ Odontites* sp.), cleavers (*Galium aparine*), thistle (*Carduus/ Cirsium* sp.), knapweed (*Centaurea* sp.), scentless mayweed (*Tripleurospermum inodorum*), chess (*Bromus secalinus* type) and other wild grasses (Poaceae indet.). Plants such as nettle, goosefoot, dock and henbane are often indicative of relatively high soil fertility and probably reflect manuring activities.

Some taxa, such as blinks (*Montia fontana*), common milkwort (*Polygala vulgaris*), rushes (*Juncus* sp.), wood-rush (*Luzula* sp.), common spike-rush (*Eleocharis palustris*) and sedges (*Carex* sp.) are characteristic of wetland and heathland habitats. These could have grown amongst cereals in areas with heavier, wetter soils but could also have been gathered from other habitats along with heather, which was periodically abundant in the samples. Rushes and heather can have a number of uses, including flooring, bedding (human and animal) (e.g. Campbell 2008a, 71), thatching (e.g. Letts 2000, 13-15) and fuel. Heath grass (*Danthonia decumbens*) is a perennial of acid grassland and could have also grown in heathland habitats or where arable land encroached on such areas.

A number of possible wild/ non-cereal food plants may also be represented in the assemblage. These include: wild strawberry (*Fragaria* cf. *vesca*) from L2914G of F2913 in Roman Sub-Phase 3, along with other specimens identified as *Potentilla/ Fragaria* sp.; possible black mustard (*Brassica* cf. *nigra*) from L1323 of F1322 in Roman Sub-Phase 1, along with other seeds of *Brassica/ Sinapis* sp., which could have been used for oil, spice or as a vegetable (e.g. Campbell 2008a, 66-67); opium poppy (*Papaver somniferum*), present in L3754 of F3605 and L3997 of F3996 from Roman Sub-Phase 6, which can be used for oil (an opium poppy crop has been interpreted in the Danebury Roman Environs (Campbell 2008a, 67)); and possible onion (cf. *Allium* sp.) was represented by a single seed in Roman Sub-Phase 2 Ditch Fill L4597B (F4600). The number of seeds from these taxa was low and it is not possible to accurately differentiate between accidentally and deliberately gathered plants.

Possible common vetch (*Vicia* cf. *sativa*) from L1435C of F1423 of Roman Sub-Phase 3, along with frequent seeds of vetch/ wild pea (*Vicia/ Lathyrus* sp.) and medium sized seeds of Fabaceae indet. could have been part of a fodder crop, grown as part of a crop rotation system or as a catch crop (cf. Campbell 2008a, 70). These plants could have persisted in the soil and grown as weeds amongst cereal crops, which may account for their frequency in the samples. They are also likely to be present in elevated numbers due to their large seeds, which are more difficult to separate from the cereal crop.

Small numbers of tree and shrub taxa were present, including hazelnut shell (*Corylus avellana*), whitebeam (*Sorbus* sp.), hawthorn (*Crataegus* sp.) and elder (*Sambucus nigra*). Although hazel could represent a wild food plant, the number of fragments was very low. The first three taxa were represented in the charcoal assemblage (*Sorbus* sp. and *Crataegus* sp. come under the Maloideae sub-family) and all seem likely to have been introduced to hearths with fuel wood. A range of wood types were represented in the charcoal assemblage but oak was by far the most dominant taxon.

Within the Period II assemblage, a number of samples were present that appear to represent the remains of discrete deposits of carbonised plant remains. These are presented in more detail below. To allow the investigation of changes in the archaeobotanical dataset over time, the samples have been divided into approximate 100 year blocks based on the Roman sub-phases:

- Roman Sub-Phases 1 and 2 (late 1st – late 2nd century AD): 86 samples (16 with >30 items)
- Roman Sub-Phases 3 to 5 (late 2nd – early 4th century AD): 112 samples (14 with >30 items)
- Roman Sub-Phases 6 and 7 (early – late 4th century AD): 90 samples (16 with >30 items)

Roman Sub-Phases 1 and 2 (late 1st – late 2nd century AD)

Across all Roman Sub-Phase 1 and 2 samples, cereals had a ubiquity of 70.93%. Wheat remains were present in 53.49% of samples and barley in 33.72%. Oat grains were also present in a small number of samples (5.81%). Among the 23 fully quantified samples (Table 171), wheat grains were numerically dominant (73%) and across the 17 richer samples (>30 specimens, Table 167), wheat was dominant in 75% of samples. This shows that wheat was more frequently carbonised in greater concentrations than barley.

The majority of the samples contained fewer than 10 items per litre. It is likely that most of these do not represent discrete deposits of charred material, rather more mixed accumulations of debris from refuse disposal. However, three samples (3.5% of all Roman Sub-Phase 1 and 2 samples) contained a greater density of remains and may reflect more discrete deposits (*ibid.*) worthy of individual characterisation.

Pit Fill L1777 (F1776)

Sample 117 (Table 167), from Roman Sub-Phase 1 Pit Fill L1777 (F1776), contained a high density of remains (34 items per litre). The cereals were dominated by wheat grains (75%), with a number of hulled barley grains (21%) also present, along with a small number of oat grains (4%). A large number of chaff elements included glume bases (predominantly spelt), wheat rachis segments (including spelt and bread wheat), barley rachis segments (including six-row barley), cereal culm nodes, a cereal culm base, awn fragments and lemma/ palea fragments. Although no free-threshing-type wheat grains were present, two rachis segments were identified as bread wheat type (*T. aestivum* sl), indicating the limited presence of this taxon in the sample.

The wheat assemblage from Pit Fill L1777 contained a ratio of 0.7 glume bases to each glume wheat grain (using an adjusted grain total). Allowing for the differential preservation of grains and chaff elements (Boardman and Jones 1990), this may reflect the presence of whole spikelets. The number of rachis internodes and culm nodes was quite low (1.7% of wheat chaff), as was the ratio of barley rachis internodes to barley grains (1:10). This could represent a threshed and sieved

product, or a more mixed deposit incorporating processing waste, with some chaff having been destroyed during carbonisation. High temperature oxidising conditions during burning may be reflected by the presence of a wheat/ barley awn silica skeleton and silica-rich ash amongst the remains, at least in some parts of the fire (cf. Robinson and Straker 1991). The presence of lemma/ palea fragments may indicate the presence of hulled barley which had not been de-husked.

A range of non-cereal taxa were also present in the sample, accounting for 44% of the identified items. Most of these can be considered to represent arable weeds. The dominant group of non-cereal taxa comprised probable fat hen (*Chenopodium* cf. *album*), goosefoot (*Chenopodium* sp.), oraches (*Atriplex* sp.) and Chenopodiaceae indet., which accounted for 81% of the identified wild plant taxa. It would seem that this group of annuals, which have high seed production, were among the more troublesome arable weeds at this time. The large number of seeds from these taxa is suggestive of high soil fertility, which often leads to the proliferation of such plants in arable habitats. Henbane (*Hyoscyamus niger*) is also more prevalent in fertile soils. Some of the plants among the arable weeds are characteristic of autumn/ winter sowing, with field gromwell (*Lithospermum arvense*) and cleavers (*Galium aparine*) both being more common as weeds of autumn/ winter cereals. Thus, the view of the non-cereal taxa is of an autumn crop sown on well manured soil.

The seeds of sedge (*Carex* sp.) may reflect some wetness in the cultivated soils, although this would not appear to have been extensive. The single culm base and two probable onion couch (cf. *Arrhenatherum elatius* var. *bulbosum*) tubers could have been introduced through harvesting by uprooting, although the number of items is low and could also have been gathered during reaping low on the stem using a sickle or scythe.

L1777 also contained a few apparently mineralised items, such as Chenopodiaceae seeds and mineralised nodules. These are generally representative of highly organic deposits, including those containing faecal material (Carruthers 1988; 2000) and are probably not related to the charred plant remains within the pit fill. Together with the presence of mammal bone fragments, the remains from L1777 imply the use of Pit F1776 as a generalised refuse pit. It seems most likely that this deposit represents the remains of multiple sources of carbonised material, with much of it probably originating as processing waste.

Ditch Fills L4588A (F4587) and L4597B (F4600)

Two samples (S351 of Fill L4588A (F4587) and S352 of Fill L4597B (F4600)), from two associated Roman Sub-Phase 2 (early to mid 2nd century) ditches, were overwhelmingly dominated by wheat chaff elements (Table 167). The wheat remains produced a ratio of glume bases to glume wheat grains significantly above the 1:1 ratio present in an un-threshed ear (14:1 in L4588A and 7.9:1 in L4597B). Both samples were composed of glume bases, spikelet forks and wheat rachis internodes, with few cereal grains or seeds of wild plant taxa. All the identifiable wheat chaff was found to be of spelt (*T. spelta*). The composition of the deposits is consistent with burnt spelt de-husking waste, with 92% of the wheat chaff represented by glume bases. Amongst the cereal grains from both samples, only a

single barley caryopsis was present. It is likely that this material was derived from the processing by-product of a wheat crop with occasional impurities.

Deposits dominated by wheat de-husking waste are often associated with Roman corn driers, with cereal chaff making a significant contribution to the fuel used (Fryer 2004; Carruthers 2008, 34.9; Campbell 2008a; van der Veen 1989). The possible double-ditched boundary incorporating F4587 and F4600 is over 100m south of the previously excavated building containing a corn-drier/ malt oven at MNL 502 (Bales 2004), which was found to have been primarily fuelled with spelt wheat chaff (Fryer 2004). The distance from the corn-drier at MNL 502 suggests that the material in Ditches F4587 and F4600 was not waste from the feature. However, there is no sign of a similar feature in the present excavations, although the results from a small previously excavated area within the present site (MNL 608) are yet to be published. It is also possible that the remains from F4587 and F4600 were simply processing waste which was deliberately burned as a means of disposal and subsequently deposited.

Although the dates of Roman Sub-Phase 2 and the aisled 'maltings' at MNL 502 overlap (Bales 2004, 15-19), it is not possible to tell whether the remains from F4587 and F4600 are contemporary. However the deposits suggest that during the early to mid 2nd century, spelt wheat was being fully processed in bulk at Beck Row to produce a fully cleaned spelt crop. This could have been for bulk storage and export in a fully cleaned state (cf. Murphy *et al.* 2000, 42-43).

Within Ditch Fill L4588A were other carbonised remains, including heather charcoal and buds, a number of indeterminate tubers and three carbonised worm egg capsules. It is considered that these may be related to the numerous sedge seeds and other wetland/ heathland taxa, such as blinks (*Montia fontana*), wood-rush (*Luzula* sp.), common spike-rush (*Eleocharis palustris*) and heath grass (*Danthonia decumbens*). These are likely to represent vegetation gathered from such habitats and burnt as fuel along with the crop processing debris.

Roman Sub-Phases 3 to 5 (late 2nd – early 4th century AD)

Across all features from Roman Sub-Phases 3 to 5, cereals were present in 76.79% of samples. As in previous periods, wheat was more ubiquitous than barley (51.79% compared to 35.71%). A small number of samples contained oat (5.36%) and rye appeared in samples for the first time (Ditch Fills L1141E and L3403A of Roman Sub-Phase 5). Across the 28 fully quantified samples (Table 171), wheat grains were numerically dominant (63.2%), followed by barley (34.67%) and oat (1.87%). In the 14 samples containing >30 items (Table 168), wheat grains outnumbered barley in fewer samples than the preceding period (42.86%), with barley being more prevalent than before (35.71%). Two samples (1.79% of the total number of samples) produced a density of remains >10 items per litre, which are considered in more detail.

Ditch Fill L2914G (F2913)

The sample from Ditch Fill L2914G (F2913) was not as rich as those from the preceding phases (10.3 items per litre). The deposit was dominated by non-cereal

taxa (73%), with eyebright/ bartsia making up a large proportion (39%) of these (Table 168). Eyebright/ bartsia are semi-parasitic on the roots of other grasses and can grow among arable habitats (particularly red bartsia (*Odontites vernus*)), or in a range of other conditions (Stace 1997, 609-622). The bulk of the other non-cereal taxa were potential arable weeds, including goosefoot (*Chenopodium* sp.), black bindweed (*Fallopia convolvulus*), dock (*Rumex* sp.), vetch/ wild pea (*Vicia/ Lathyrus* sp.) and hemp-nettle (*Galeopsis* sp.). A further interesting plant within the non-cereal assemblage was probable wild strawberry (*Fragaria* cf. *vesca*), which could have been gathered as a wild food resource. Charcoal from this sample was found to be exclusively composed of oak (*Quercus* sp.).

The cereal remains from L2914G were predominantly in the form of grains, although the overall number was low (27 grains). Wheat, including glume wheat grains (*T. dicoccum/ spelta*) were dominant, with hulled barley (*H. vulgare*) and a probable oat grain (cf. *Avena* sp.) also present. No chaff elements were present other than a single cereal-sized culm node. Whether this reflects taphonomic loss (cf. Boardman and Jones 1990) or genuine absence is difficult to determine. However, the sample does not appear to represent the debris from a particular activity or event and may be best understood as the remnants of mixed refuse disposal.

Pit Fill L4658 (F4657)

Sample 363 of Roman Sub-Phase 5 Pit Fill L4658 (F4657) was very rich (207.9 items per litre) and dominated by cereal chaff (92.44%). Cereal grains constituted only 2.65% of the sample, with the remainder (4.91%) represented by seeds of non-cereal taxa. The chaff remains were dominated by wheat glume bases, spikelet forks and a number of wheat rachis segments. Identifiable glume bases and spikelet forks were mostly spelt (*T. spelta*), although two glume bases and two spikelet forks of emmer (*T. dicoccum*) were also recorded. The latter could be marginal specimens of spelt, or represent low-level contamination of the spelt crop. This deposit is characteristic of spelt de-husking waste.

Grains of glume wheat and hulled barley were present, with wheat predominant. Of the 17 wheat grains, 9 (52.94%) were found to have germinated, as had a number of the indeterminate cereal grains. Many of the remaining grains displayed severe distortion typical of specimens carbonised whilst germinating. The large proportion of germinated grains, combined with the significant chaff dominance, could indicate that the sample represents fuel waste from a malt oven, although this is tentative due to the small number of grains. The composition of the sample is comparable to the remains recovered from the malt kiln excavated at MNL502 (Fryer 2004) but the date for the deposit (mid 3rd to early 4th century) is a little later than that attached to the feature at the Maltings (Bales 2004). As with the deposits from Ditch Fills L4588A and L4597B from Roman Sub-Phase 2, F4657 is approximately 100m south of the aisled 'maltings' at MNL 502, which does seem not to be a viable location for the disposal of fuel waste from the malt oven. As such, it is possible that similar activities were taking place in the vicinity of Pit F4657 during Roman Sub-Phase 6, although no evidence of a kiln from this period was excavated in the area. An alternative explanation is that the remains represent de-husking waste used as fuel for another purpose or process (e.g. in a general drying kiln or as domestic fuel).

The germinated grains could have an elevated presence due to removal and discard through hand sorting.

Among the spelt chaff from L4658 were two glume bases displaying small bore-holes, which are likely to have been caused by grain weevil (*Sitophilus granarius*) activity. This demonstrates that there was a pest presence within stored grain at the site. Although most glume bases were insufficiently well preserved to display such features, two out of 441 spelt glume bases (0.45%) is a relatively small proportion and does not imply a severe infestation.

Within L4658 was a reasonable quantity of charcoal (c.8 grams >2mm). All of the identifiable fragments were found to be mature oak (*Quercus* sp.) wood (Table 172). This indicates that another element of the fuel associated with the cereal processing remains was oak timber. Pollen records from peat hollows excavated at the Maltings site (Wiltshire 2004) showed evidence of oak in local woodland habitats, although the dating evidence from these deposits is limited.

The non-cereal taxa from L4658 were dominated by goosefoot (*Chenopodium* sp.), along with a number of dock (*Rumex* sp.) seeds. These, as well as a number of the other taxa, such as pink family (Caryophyllaceae indet.), daisy family (Asteraceae indet.), brome grass (*Bromus* sp.) and other wild grasses (Poaceae indet.), probably represent arable weeds removed during crop processing. Sedges (*Carex* sp.) and rushes (*Juncus* sp.) could have grown amongst the cereal crop or had an alternative source. In addition, a single seed of probable hemlock (cf. *Conium maculatum*) was present, which could represent the additional use of other refuse as fuel.

Charcoal

Charcoal remains from sample S115 (Table 172) of Roman Sub-Phase 4 Pit Fill L1990 (F1988) also included oak and a lesser amount of *Sorbus/ Malus/ Crataegus* group (Maloideae). Coupled with the evidence from Ditch Fill L2914G and Pit Fill L4658, it is possible to suggest that oak is likely to have been deliberately selected for fuel use during the late 2nd to early 4th century AD and supplemented with a limited range of other taxa.

Roman Sub-Phases 6 to 7 (early – late 4th century AD)

Across all Roman Sub-Phase 6 to 7 features, cereals were present in 73.33% of samples. In line with previous sub-phases, wheat had a ubiquity of 54.44% and barley was present in 46.67% of samples. Oat and rye were both present in a limited number of samples (8.89% and 1.11% respectively). In the 29 fully quantified samples (Table 171), barley grains were numerically dominant (62.58% compared to 35.75% wheat grains) but wheat dominated a larger number of the 16 samples containing over 30 specimens (75%; Table 169). This shows that wheat was still more frequently becoming carbonised in greater concentrations than barley. From Roman Sub-Phases 6 to 7, three samples (one from ditch F4345 and two from kiln F3605) produced a density >10 items per litre (3.33% of all Roman Sub-Phase 6 to 7 samples) and are discussed further.

Ditch Fill L4346 (F4345)

Context L4346 in Ditch F4345 was a relatively rich deposit (57.75 items per litre) heavily dominated by cereal grains (90.89%), of which 91.56% were barley. The small number of chaff elements were predominantly spelt and indeterminate hulled wheat glume bases and spikelet forks associated with the small number of glume wheat grains. The wild plant community was dominated by large grasses (*Poaceae* indet.) and goosefoot (*Chenopodium* sp.), along with a relatively small number of other arable weeds.

Among the barley grains, 16% showed evidence of germination and many others showed distortion and shrunken sides, although no evidence of a definite sprout. This could represent the remains of carbonised malted barley, although the proportion of germinated grains is considerably lower than the 75% considered by van der Veen (1989, 304) to represent a deposit of malt. It is therefore likely that this deposit represents the remains of a crop containing some spoiled grains. It is possible that the grain was destroyed during an attempt to prevent further spoilage (cf. Campbell 2008b), or another drying or storage accident.

The sample from Fill L4346 is the only one from the former Smoke House Inn to be dominated by barley in this way. In itself, this demonstrates that barley was raised as a separate crop in its own right, at least during Roman Sub-Phase 6. The deposition of the material in Ditch F4345 may reflect nearby activities. The ditch may have been associated with a paddock-like arrangement in the corner Enclosure 36, 'interlocking' with Gully F4079 and it is possible that the barley was intended as fodder for animals being raised or worked at the site. In the Roman military, barley was mostly restricted to horse fodder (Davies 1971). Whether it was also fed to horses or other draft animals at agricultural sites is uncertain. This area could also simply have been a focal point for barley storage, with three large pits (F4481, F4483 and F4485) enclosed by Ditch F4345.

Unlike other charcoal samples discussed so far, L4346 did not contain any oak (Table 172). This deposit was instead dominated by hazel (*Corylus* sp.; 77% by weight). A few fragments of the *Sorbus/ Malus/ Crataegus* group (Maloideae) were also present, along with a small fragment of elm (*Ulmus* sp.).

Kiln/ Oven F3605

Five contexts were analysed from Kiln/ Oven F3605: L3606 (S256); L3741 (S271); L3751 (S276); L3754 (S277); L3755 (S275), of which two (L3606 and L3754) contained a density of over 10 items per litre. Across all five samples, cereal grains were dominant, accounting for 68% of identified specimens. Of these, the majority were wheat (62%), with most of the other grain being barley (36%). As with the assemblage as a whole, the wheat was primarily of a glumed variety (probably spelt, although diagnostic chaff was absent), with a small number of free-threshing type grains. A few oat grains were also present but these could have grown as weeds among other cereal crops. Although the richness of the samples varied, the composition of the cereal remains was consistent between all five samples from F3605, implying a comparable source for all of the material.

Most of the non-cereal taxa from the fills of F3605 are those which can be considered arable weeds. The taxa that occurred in the greatest concentrations were those with large seeds, predominantly vetch/ wild pea (*Vicia/ Lathyrus* sp.) and other indeterminate medium legumes (Fabaceae indet.) which accounted for around a third of the wild plant taxa. Such large seeds are often only removed in the latest stages of crop processing (e.g. Stevens 2003).

In sample S277 of Fill L3754, a single possible ergot (cf. *Claviceps purpurea*) sclerotium was present. Being of a similar size to cereal grains, ergot sclerotia often remain with the crop throughout sieving and must be removed manually. Removal by hand sorting becomes less effective when cereals are processed in bulk and such practices could have meant some ergot sclerotia entered human food supplies. However, a single specimen is far short of a serious infestation in the early to mid 4th century cereal crop at the former Smoke House Inn. In addition, the mixing of cereals with fuel residues in Kiln/ Oven F3605 makes it impossible to prove that the ergot was definitely introduced with cereal crops rather than with fuel resources (e.g. with wild grasses or as cereal processing waste).

Grain storage pests are demonstrated by two glume wheat grains from L3754 displaying circular holes indicative of grain weevil (*Sitophilus granarius*) activity. It is possible that a greater number of grains were originally damaged in this way but the evidence was obscured during carbonisation. There was also some evidence of germination among both the wheat and barley grain but the proportions were quite limited (1.2% of barley grains and 0.3% of wheat grains). This is suggestive of low-level spoilage of the crop rather than any strong association of malted grain with the kiln/ oven.

Two samples from Kiln/ Oven F3605 were part of the charcoal analysis: sample S256 of L3606 and sample S276 of L3751. Both deposits were dominated by oak (L3606 93% oak and L3751 70% oak), with a small amount charcoal from other taxa. Other woods were elm (*Ulmus* sp.), hazel (*Corylus* sp.), willow/ poplar (*Salix/ Populus* sp.) and heather (*Calluna vulgaris*). Of the latter four taxa, heather was most abundant. This indicates that the bulk of the fuel for the kiln/ oven was oak, supplemented with heather and wood from other mixed sources. In the Danebury Environs, oak was the principal fuel for ovens, smithing hearths and hypocausts, while corn driers were fired predominantly with cereal chaff (Campbell 2008a, 71). In addition, heather was interpreted as a fuel in the Roman corn drier at Dunkirt Barn, Hampshire (*ibid.*). The relatively high proportion (25% of the wild taxa from all five samples) of seeds from wetland and heathland, including common spike-rush (*Eleocharis palustris*), sedges (*Carex* sp.) and heath grass (*Danthonia decumbens*), may have entered the kiln along with gathered heather fuel. A number of tubers in the samples, some of which were quite large, could also have been uprooted with gathered heathland vegetation. Heather would have been readily available from nearby Breckland habitats and would create a fast, fierce heat that would have been well suited to use in bread ovens or as kindling (Pelling *pers. comm.*). Heather fuel has been interpreted from Romano-British houses at Snettisham, Norfolk (Murphy 2001) and heather remains were also present in Roman samples from West Stow, Suffolk (Murphy 1985).

Although not quite as rich as some of the samples from Kiln/ Oven F3605, two samples from Fill L3600 of Pit F3599, which lies adjacent to the kiln/ oven, were found to contain a very similar range of carbonised remains. These samples (S261 and S262) were dominated by cleaned cereal grain, with little or no associated chaff and 30-40% non-cereal taxa. Both barley and wheat grains were present, with glume wheat grains dominating the cereal assemblage. Two free-threshing type wheat grains (*T. aestivum/ compactum* type) and a possible germinated rye grain (cf. *Secale cereale*) were also present in sample S261 of Pit Fill L3600A. Heather charcoal and seeds of wetland/ heathland taxa made a contribution to these samples, suggesting that some gathered heathland vegetation was also present. Although not conclusive, it is possible that Pit F3599 was receiving waste from activities associated with Kiln/ Oven F3605.

The quantity of grain recovered from the kiln/ oven indicates that its function could have been associated with the processing or use of cereals. However, it is also possible that the grain in the deposits was associated with fuel used within the feature. The grains were generally quite poorly preserved and the samples were not as rich as would be expected for the remains of a grain drying accident. The use of processing waste (loose glumes and discarded grains and weed seeds from sieving) in a fierce fire, such as that also fuelled by wood and heather, is likely to result in the destruction of much of the cereal material, particularly the less durable chaff elements (cf. Boardman and Jones 1990). It seems likely that the bulk of the remains present could have originated as fuel and that the feature may have had a role in baking or other food preparation activities. However, use for cereal drying cannot be ruled out on the basis of the current evidence.

Charcoal

In addition to the above samples, charcoal was examined from the fill of a cremation vessel in F1068 (sample S8 of L1071). The cremation vessel contained the greatest amount of charcoal in the burial, with the rest of the fills producing only small concentrations. The material probably represents spent pyre fuel gathered with the cremated bone and placed in the vessel. The charcoal was composed predominantly of wood from the *Sorbus/ Malus/ Crataegus* group (Maloideae), accompanied by a smaller amount (19%) of ash (*Fraxinus* sp.). The presence of only a single (definite) Romano-British cremation at the former Smoke House Inn prohibits an assessment of fuel wood selection for cremations at the site. Oak (*Quercus* sp.) and ash tend to be the most common woods used in Romano-British cremations, perhaps due to their quality as fuel (Gale 1997), although fuel wood selection appears to be varied and pragmatic (e.g. Challinor 2007, 305). Maloideae and ash charcoal were recognised in other Period II samples and are likely to have been readily available in the local environment at this time. It is interesting that no oak was used, despite its prevalence elsewhere on the site. It is possible that the association of oak with general agricultural activities made it unsuitable for funerary applications or that the cremation was carried out at another location away from the current site. No other plant remains were present with the cremation to suggest any inclusion of food or other plant offerings within the pyre, although this could of course be a product of preservation.

Period III: post-Roman

From Period III deposits, eight bulk samples were taken (270 litres). Three of these (37.5%) contained cereal remains. Two samples from Pit F4054 were considered suitable for further analysis (S323 of L4055 and S324 of L4124).

Wheat was the dominant cereal in these two samples (Table 170 and Table 171), being mostly represented by glume wheat (*T. dicoccum/ spelta*). This may represent the continued cultivation of spelt wheat into the post-Roman period, although there is potential for residuality in the deposits. Early Saxon glume wheat has also been recognised at West Stow, Suffolk (Murphy 1985), Mucking (van der Veen 1993) and Springfield Lyons (Murphy 2005), in Essex. A single free-threshing type wheat grain (*T. aestivum/ compactum* type) was present in sample S323 of Pit Fill L4055. In addition to wheat, was hulled barley (*H. vulgare*) and rye (*Secale cereale*). The cereal assemblage is comparable to the preceding phase of occupation, with the exception of rye, which was present in greater numbers than in earlier features. Unfortunately the number of samples is too low to examine this trend in greater detail.

Contaminants

Modern roots, seeds, burrowing molluscs (*Cecilioides acicula*) and earthworm egg capsules were all frequently recorded in deposits at the former Smoke House Inn. The concentrations of such remains were generally quite low and the effect of bioturbation on the charred macrofossil assemblage is not likely to have been extensive. However, some movement of small items could have occurred in some deposits.

Discussion

The following discussion is intended to address a number of themes which are significant in the interpretation of the former Smoke House Inn site and its arable economy. The discussion is focussed on the archaeobotanical remains from the Romano-British (Period II) deposits as too few samples were present from Periods I or III for any detailed interpretation.

Cereal production and processing

Throughout the Romano-British period at the former Smoke House Inn both spelt wheat and hulled six-row barley formed the mainstay of the arable economy. This is quite typical of other Romano-British agricultural sites in Eastern England and further afield (e.g. Murphy 2003; Fryer 2003; Carruthers 2008; Stevens 2009; Campbell 2008a; Pelling 2008; Pelling 2011; van der Veen 1992). Free-threshing type wheat grains in the majority of samples appear to be more indicative of a minor weed contaminant of other crops or genetic variation within the spelt wheat crop (cf. Campbell 2008a, 66; Campbell 2000, 50-51) than the cultivation of a separate bread wheat crop. In addition, neither oat nor rye was present in sufficient concentrations in the assemblage to be considered crops. Elsewhere in the region, oats and rye generally occur in similarly low numbers and their deliberate cultivation is often difficult to prove (e.g. Fryer 2003; Carruthers 2008; Murphy 2003). Oat was present

throughout the Romano-British period at the former Smoke House Inn but rye first appeared in the assemblage during Roman Sub-Phase 5 (mid 3rd to early 4th century), after which it occurred in Roman Sub-Phase 6 and Period III. This may reflect its introduction to the area sometime during the second half of the 3rd century, perhaps in imported seed corn rather than as a specific crop. However, it is also possible that oats and rye were grown for fodder, which can account for such limited representation in carbonised macrofossil assemblages (e.g. Carruthers 2008, 34.10). Rye, with its extensive root systems, is well suited to the sandy soils of the Breckland and would have represented an excellent way of extending cultivation into more marginal land, as is well attested in the medieval period (e.g. Campbell and Overton 1993).

There is sufficient evidence from a number of richer deposits from the present excavations, along with the archaeobotanical remains from the Maltings site (Fryer 2004), to demonstrate that spelt and hulled barley were generally treated separately. This may imply that wheat and barley were predominantly grown as separate monocrops, as was hypothesised for stored grain at Great Holts Farm, Essex (Murphy *et al.* 2000) and cereal remains recovered from Roman sites in the Danebury Environs (Campbell 2008a).

The presence of a number of samples containing large numbers of cereal chaff elements, at least from Roman Sub-Phases 2 and 5, shows that bulk processing of cereals, in particular spelt wheat, was being carried out at Beck Row. Overall, 13% of the Period II samples containing more than 30 items produced a ratio of glume bases to glume wheat grains in excess of 1:1. This was broadly comparable over the three grouped blocks of sub-phases and suggests that bulk de-husking of wheat crops was carried out throughout most of the Romano-British period at the site. Waste from such activities is commonplace on Romano-British sites in the region (e.g. Fryer 2003; Stevens 2009; Carruthers 2008), particularly in association with drying kilns.

The presence of high-density, grain-rich deposits is an indication that cereal surpluses were being produced at Beck Row (cf. van der Veen and Jones 2006). The presence of a number of deposits characterised by large volumes of spelt wheat chaff are indicators that the spelt crop was being fully cleaned in bulk (cf. Stevens 2003). It is possible that surpluses were used as tradable commodities exported to urban and military centres (cf. Upex 2008, 155-175), as may also have been the case for surpluses from sites such as Great Holts Farm, Essex (Murphy *et al.* 2000), Haddon Farm, Peterborough (Fryer 2003), and sites at Cambourne New Settlement, Cambridgeshire (Stevens 2009). Beck Row is likely to have been part of a thriving and productive regional agricultural economy. The scale of the site, which is likely to extend beyond the present excavations and previously excavated areas (e.g. the Maltings), indicates a large, productive farm estate, the true extent of which is still unknown.

In addition to straightforward trade in grain, the deliberate malting of cereals was carried out at Beck Row. The production of malt could have been for use by the site's inhabitants but would also have been an excellent way of enhancing the value of cereal crops for export (e.g. van der Veen and O'Connor 1998, 134). The handling of malted grain was restricted to a limited number of areas at Beck Row,

with the majority of malting activity focussed on the 2nd to mid 3rd century aisled building to the north of the present excavations (Fryer 2004). The chaff-rich deposit containing a high proportion of germinated grains from Roman Sub-Phase 5 (mid 3rd to early 4th century) Pit F4657 may also represent waste from a similar feature used in a later phase of activity at the former Smoke House Inn, although the overall number of grains is low and could simply represent discarded spoiled grains.

Many of the less rich (<10 items per litre) samples from the site probably contain mixed material from a range of activities disposed of with other refuse. The bulk of the samples from most of the pit and ditch fills, which were often quite sparse, are probably the scattered remains of cereal processing on the site which were incidentally incorporated into deposits. Despite this, the ubiquity of cereal remains in the samples is indicative of the intensive use and processing of cereals on the site.

In general, the evidence from the cereal remains from Period II at the former Smoke House Inn indicates that the production of cereals was remarkably consistent throughout. The relative importance of spelt wheat and hulled barley did not fluctuate dramatically over time. Evidence of bulk processing was also well distributed across the Period II sub-phases. This apparent consistency over time could reflect problems of resolution in the archaeobotanical assemblage. However, it may also show that the desired products and the motivations for surplus production (most likely trade), remained broadly consistent throughout the late 1st to mid 4th centuries. It is possible that Roman Sub-Phase 7 (mid to late 4th century) represents a period of decline in arable productivity at Beck Row. However, deposit L4055 (Period III) shows that the cultivation of spelt wheat and barley continued beyond the Romano-British period, although the intensity of arable production appears to have been lower than during the peak of Roman activity.

Among the non-cereal taxa, the cultivation of some wetter, fen-edge areas may be reflected by the presence of wetland taxa, such as sedges (*Carex* sp.), rushes (*Juncus* sp.) and common spike-rush (*Eleocharis palustris*). However, in some instances, where heather charcoal was abundant, it is not possible to determine whether these plants were associated with cereal crops or gathered with heather for fuel or other purposes. In fact, the bulk of the non-cereal taxa point to the cultivation of less marginal land, with many weed taxa indicative of well manured, fertile soils, such as goosefoot (*Chenopodium* sp.), henbane (*Hyoscyamus niger*), small nettle (*Urtica urens*) and docks (*Rumex* sp.).

The regular presence of cleavers (*Galium aparine*) and field gromwell (*Lithospermum arvense*) are indicative of autumn sown cereals. Black bindweed (*Fallopia convolvulus*) and oat (*Avena* sp.) may indicate spring sowing, most likely of the barley crop, with goosefoot (*Chenopodium* sp.) also potentially associated with spring cereals. Together, these may indicate the separate sowing of an autumn wheat crop and a spring barley crop during most of Period II (cf. Campbell 2000, 55-56).

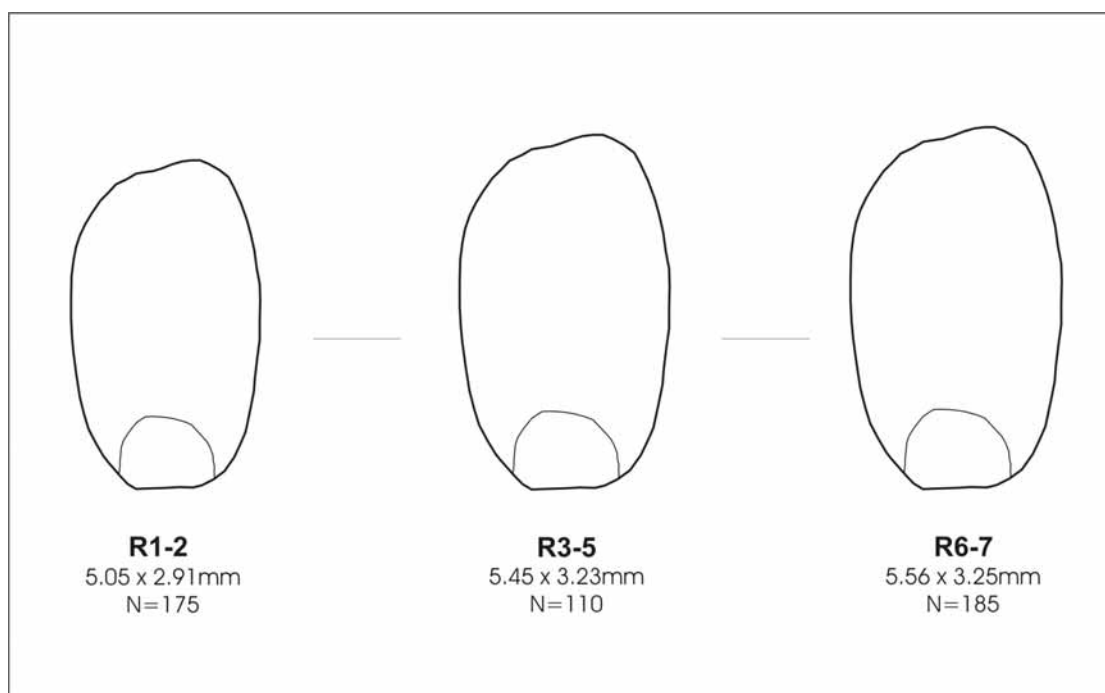
The regular occurrence of the twining plant black bindweed (*Fallopia convolvulus*) and occasional low growing plants, such as ribwort plantain (*Plantago lanceolata*), common chickweed (*Stellaria media*) and germander/ bugle (*Teucrium/ Ajuga* sp.) suggest reaping of cereals low on the stem. Remains of small tubers were also

common, some of which could have been uprooted during cereal harvesting. However, many could also have been introduced with gathered heathland vegetation, as typified by occasionally abundant heather remains.

Grain measurements

As part of the investigation, numerous specimens of glume wheat (477) and hulled barley (458) grains were measured (length and breadth) using an eyepiece graticule to the nearest 100µm. Only grains which could be precisely identified and which were not significantly distorted were included in the analysis. In larger samples, 100 grains were randomly selected, whilst in smaller samples all positively identified grains were measured. Basic calculations of mean length and breadth are presented here as a means of comparison between sub-phases.

Between the earlier sub-phases (Roman Sub-Phases 1-2) and the later periods (Roman Sub-Phases 3-5 and 6-7) there was an increase in the mean length and breadth of glume wheat grains (illustrated below). Between Roman Sub-Phases 1-3 and 7-8, mean grain length increased by 510µm and mean grain breadth increased by 340µm (10% length increase and 11% breadth increase). Over the same period, there was no discernable change in the size of barley grains, whose mean lengths varied by only 70µm across the three sub-phase groups.



Graphical representation of the change in the mean length and breadth of glume wheat grains over time

Although there are a number of potential inaccuracies in these calculations, it does appear that there was an increase in the size of glume wheat grains after Roman Sub-Phases 1-2 (c. late 2nd century). This may reflect an improvement in growing conditions (e.g. climate or soil fertility) or the improvement of the cereal variety, such as through the import of seed corn from other areas or local improvement of the variety through selective pressures. These data correspond with the expansion in rural settlement during the 3rd and 4th centuries (e.g. Upex 2008, 116-154) and may

reflect an associated intensification of arable production. However, this is only a small sample of grains and it would be interesting to examine cereals from other well dated sites in the region to gain an insight into regional trends in the arable economy.

Pulses and fibre crops

Only limited evidence was recovered for the presence of large legumes, including common pea (*Pisum sativum*), and the possible fibre crop of flax (*Linum usitatissimum*). Cultivation of neither can be confirmed based on the current evidence although both are generally uncommon in assemblages of carbonised macrofossils (e.g. Stevens 2009; Carruthers 2008). At Great Holts Farm, Essex (Murphy *et al.* 2000), pulses identified in the burnt-down storage structure were considered to represent stored crops. At Beck Row and at other sites where small numbers of specimens of such plants are encountered, it is possible that they too represent crops grown on a small scale or as garden crops (cf. Pelling 2011, 157). In addition, as is typical of carbonised assemblages, the economic significance of other non-cereal plants, such as black mustard, opium poppy, vetch/ wild pea and wild strawberry must remain speculative.

Grain storage conditions

In general, there is only limited evidence for grain storage problems, suggesting that pests and spoilage were not a significant problem at the former Smoke House Inn. A small number of cereal grains (wheat and barley) and spelt glume bases were recognised with holes suggestive of grain weevil (*Sitophilus granarius*) attack. Although good preservation is necessary to recognise weevil activity, the very small proportion of grains displaying such features is not indicative of a serious infestation. Equally, only very small numbers of small mammal bones were recognised in the bulk samples (heavy and light fractions) and few cat bones were present in the hand collected bone, although dogs were rather more common (Curl and Cussans this volume). This suggests that rodents were not a significant problem either.

It is possible that the deposit containing numerous germinated barley grains in Roman Sub-Phase 6 Ditch Fill L4346 could represent spoiled grain destroyed during drying, although this is not certain. Spoilage could have been caused by damp conditions during harvesting or a poor storage environment.

Fuel resources

During the Romano-British period at Beck Row, the majority of charcoal identified was of oak, with a range of other taxa mostly making a much more limited contribution. The similarly widespread use of oak has been noted at Westhawk Farm, Kent (Challinor 2008) and in the Danebury Environs (Campbell 2008a). At Westhawk Farm, the predominance of oak was taken as a sign of limited pressure on local woodland resources or the use of imported oak charcoal for a range of industrial and non-industrial activities (Challinor 2008). A similar scenario could be envisaged at Beck Row. An exception to oak dominance at Beck Row is Cremation 1 (F1068), for which Maloideae (apple/ pea/ hawthorn/ whitebeam) wood appears to have been preferentially selected.

It is likely that a range of tree taxa grew locally to Beck Row, with oak (*Quercus* sp.), ash (*Fraxinus* sp.) and elm (*Ulmus* sp.) growing in areas of mature woodland, Maloideae and hazel (*Corylus* sp.) perhaps more prevalent in hedgerows and willow/poplar (*Salix/Populus* sp.) growing in wetter areas. With the exception of elm, all of these taxa were present in pollen monoliths taken from peat hollows during the excavation of MNL 502 (Wiltshire 2004). Although there is limited dating for these deposits, it does at least demonstrate the range of taxa that would have been available to the inhabitants of Beck Row. On a wider landscape level, it is possible that a surplus of oak wood was a by-product from the procurement of oak bark for use in tanning (cf. Upex 2008, 169), potentially making it a common resource for general fuel use.

In addition to wood, two other fuel resources are likely to have been exploited. Heather charcoal was common in deposits across all Roman sub-phases and is likely to result from the deliberate gathering of heather and heathland vegetation as fuel. A similar use for heather was identified at sites in the Danebury Environs (e.g. Campbell 2008a, 71) and it would have been a plentiful resource in the fen edge and breckland habitats not too distant from the site. Cereal chaff resulting from bulk processing activities is also likely to have been burnt. Two deposits from Roman Sub-Phase 2 Ditches F4587 and F4600 provide good evidence for the deliberate burning of spelt de-husking waste, along with material from Roman Sub-Phase 5 Pit Fill L4658. The association of germinated grains with the latter deposits may reflect the use of chaff as fuel in malt ovens, as appears to have been the case in the corn-drier/ malt oven excavated to the north-east (Fryer 2004) and similar examples elsewhere (e.g. Fryer 2004; Carruthers 2008; Campbell 2008a; Pelling 2011 151-152; van der Veen 1989).

Conclusions

The archaeobotanical remains from the former Smoke House Inn are very much characteristic of the production and processing of cereal crops (spelt wheat and hulled six-row barley). Throughout the Romano-British period it seems likely that the arable economy was geared towards the production of surpluses for trade, a view which is supported by the scale of the site and the provision of specialised drying structures. The presence of a 2nd to mid 3rd century malt kiln at MNL 502 and possible evidence of malting from mid 3rd to mid 4th century deposits from the present excavation, indicate the creation of a value-added product suitable for more profitable trade. The improvement of the wheat crop or changes in cultivation practices appear to have resulted in the increased size of grains from sometime around the 3rd century AD. This may be part of wider agricultural intensification during the Romano-British period.

Among the features responsible for carbonisation were the 2nd to 3rd century corn drier at the neighbouring Maltings (Bales 2004) and Kiln/ Oven F3605 in the 4th century. However, over the prolonged use of the site, it is likely that other such features were operational in other areas, with the role of corn drying, malting, malt drying and food preparation.

The intensive use of the site for the processing and use of cereals is restricted primarily to the Romano-British period. Although this spans over 300 years, this

focussed period of activity indicates that the economic role of the site was tied to the social and economic structure of Roman Britain. Following the end of Roman rule in Britain and the decline of many urban centres, the intensive production of surpluses for trade or taxation may no longer have been necessary (e.g. Upex 2008, 240-257), resulting in the decline of larger agricultural estates, as may be represented by the remains at Beck Row.

Activity at Beck Row is likely to have been spread over a much larger area than the site excavated at the former Smoke House Inn, and probably even excavated areas adjoining it (e.g. the Maltings). These elements appear to have been part of a much larger Romano-British farm estate which may have incorporated a wider range of agricultural buildings, kilns and storage structures. As such, it must be remembered that the archaeobotanical assemblage from the present excavations and those published from previous work at the Maltings (MNL 502; Fryer 2004) are not necessarily representative of the entire spectrum of activities carried out by those living and working at Beck Row.

5.11 The terrestrial molluscs

Dr John Summers

Introduction

Within the bulk sample light fractions from the Beck Row excavations, numerous mollusc shells were noted, with a wide range of taxa present. Although no dedicated sampling for molluscs was undertaken, it was considered that some valuable insights into conditions on the site during the Roman period could be made with the careful exploitation of the resource represented by the bulk sample record. It was considered that the targeting of dated layers/ surfaces, a number of which may represent buried soils, was the best way of obtaining mollusc samples which would be representative of conditions on the site at particular times.

Methods

The processing of bulk soil samples is outlined above (Summers this report – *The carbonised plant macrofossils and charcoal*). Mollusc shells were extracted from light fractions and identified under a low-power stereomicroscope (x10-x30 magnification). Identifications were made using reference literature (Evans 1972; Kerney 1999; Kerney and Cameron 1979) and a small reference collection of shells.

Results

The results from the molluscan analysis are presented in Table 173. Nomenclature follows Kerney (1999).

Roman Sub-Phase 2

Two deposits were analysed from Roman Sub-Phase 2: L2156, which was the fill of a natural depression; L3611, which was an oyster rich deposit within L3609. Of these, L2156 was the richest, producing 8.2 shells per litre (compared to 2.3 per litre in L3611).

L2156

In L2156, two broad groups of taxa can be recognised within the sample. Aquatic/ semi-aquatic taxa account for 10.37% of the identified specimens, while non-aquatic taxa account for the remaining 89.63%. Within the group considered to represent aquatic/ semi-aquatic molluscs are the dwarf pond snail (*Lymnaea truncatula*), the button ram's-horn (*Anisus leucostoma*), possible white ram's-horn (cf. *Gyraulus albus*) and *Pisidium personatum*. Of these, *L. truncatula*, *A. leucostoma* and *P. personatum* are slum species, tolerating poor aquatic habitats, including those susceptible to seasonal desiccation (Kerney 1999). *L. truncatula* often lives out of water and can tolerate disturbed and poorly vegetated places.

The small amber snail (cf. *Succinea oblonga*), which was present in small numbers, is also a species of damp, un-shaded and sparsely vegetated places, including damp cattle pastures. In addition, the herald snail (*Carychium minimum*) is common in wet places, while the slippery moss snail (*Cochlicopa lubrica*), the smooth glass snail (*Aegopinella* cf. *nitidula*), the garlic snail (*Oxychilus* cf. *alliarus*) and the hairy snail (*Trichia hispida* group) are catholic species, with a preference for damp, well vegetated habitats. In addition, the smooth grass snail (*Vallonia pulchella*) is typical of wet grassland.

The most numerous individual species within the sample, accounting for 34.78% of the identified specimens, was the moss chrysalis snail (*Pupilla muscorum*, including Pupillidae indet.). This species is typical of sheep-grazed calcareous grassland (Kerney 1999, 103) and probably indicates some soil disturbance. It is generally a snail of dry, broken ground but can also occur in more sheltered, moister habitats (Evans 1972, 146-147). The eccentric grass snail (*V. excentrica*) is also typical of dry grassland, as is *Candidula gigaxii*. It is possible that the sampled fauna incorporated dry areas in the deposits or periods of drier conditions.

Based on the available evidence, the best interpretation of the molluscan fauna of L2156 is that it reflects predominantly damp grassland. The presence of *L. truncatula*, *A. leucostoma* and *P. personatum* probably indicates some standing water, most likely resulting from seasonal waterlogging. The presence of taxa characteristic of dry grassland, such as *P. muscorum* and *V. excentrica*, may reflect dry areas or summer drying of the soils. Some species, such as *P. muscorum* and *S. oblonga*, can be associated with animal disturbance, which may indicate the use of this area of the site for grazing.

L3611

Context L3611 was a discrete deposit rich in oyster shells contained within more widespread layer L3609. The molluscan fauna was more limited than L2156 and all of the identified shells were of non-aquatic taxa. As in L2156, the dominant taxon was *P. muscorum* (37.29% including Pupillidae indet.). This species and *V. excentrica* reflect dry, open conditions, with *P. muscorum* potentially indicating disturbance. Taxa reflecting more shaded and/ or wetter conditions were *C. tridentatum*, *C. lubrica*, *V. pulchella*, Zonitidae indet. and *T. hispida* group.

Based on the artefactual and faunal material within L3611, it is likely that it represents a discrete dump of midden material. The terrestrial mollusca indicate that dry to slightly damp grassland grew on top of the deposit. It does not appear that much in the way of shaded conditions developed from the growth of tall vegetation. This could have been due to grazing, the continual deposition of midden material or some other disturbance. Whether these results can be extended to the rest of L3609 is indeterminate.

Roman Sub-Phase 6 (L3947)

A large deposit in the south-western quadrant of the site (L3947) formed the basis of the Roman Sub-Phase 6 analyses. The layer was excavated in 53 test pits (A to AAA), with samples present from 17 of these. All but one (L3947I) contained shells, although seven of these contained fewer than five shells (test pits F, L, M, Y, Z, CC and DD). Conversely, test pits D and K produced particularly high concentrations of shells (31.9 and 21 items per litre respectively). Unfortunately, the extent of L3947 was not planned, which makes it impossible to examine spatial patterns in the snail fauna. Therefore, the results have been grouped and treated as a single assemblage.

Overall, the assemblage from L3947 was diverse and displayed a number of similarities to L2156 (Roman Sub-Phase 2), with a mixture of aquatic/ semi-aquatic taxa and non-aquatic taxa. Non-aquatic taxa dominated (89.74%), with a very similar proportion of aquatic/ semi-aquatic snails to L2156 (10.26%). In addition to aquatic molluscs were a number of ostracods (2.99% of identifiable specimens). There are a number of these crustaceans that live in freshwater habitats and numerous examples with tolerance to periodic desiccation (e.g. Griffiths and Evans 1991). The range of aquatic/ semi-aquatic taxa included possible moss bladder snail (cf. *Aplexa hypnorum*), *L. truncatula*, *A. leucostoma* and *P. personatum*. As in L2156, these are all slum species of poor wetland habitats and are capable of withstanding periodic desiccation.

The dominant taxon in L3947 was *C. minimum*, accompanied by numerous shells of *C. tridentatum*. Combined, *Carychium* spp. account for 38.31% of the assemblage. These snails are characteristic of moist places, with *C. minimum* having a greater association with much wetter places, such as fens, marshes and water meadows. The predominance of *C. minimum* (28.03%) contributes to the impression of wet conditions, probably in the form of seasonal waterlogging/ flooding. *C. tridentatum* is generally intolerant of intensive grazing and other disturbance (Evans 1972, 136). Other taxa of moist, well vegetated conditions included *C. lubrica*, *Discus rotundatus*, *V. crystallina*, *A. cf. nitidula*, *Oxychilus cf. helveticus* and *T. hispida* group.

The signature for dry conditions was much less pronounced in L3947. For example, *P. muscorum* had a very low representation of just 0.17%, although *Vallonia* spp. accounted for 18.91% of the assemblage. Other taxa of dry grassland included *Vertigo pygmaea*, *Cochlicopa lubricella* and *C. gigaxii* but only in low concentrations. A low occurrence of *P. muscorum* may indicate less disturbance and the development of taller vegetation over this deposit.

Roman Sub-Phase 7

L3354

Four of the five samples from L3354 contained mollusc shells but the overall density of specimens was relatively low at 0.9 items per litre. The vast majority of the species encountered were non-aquatic, with a small number of *A. leucostoma* representing the aquatic element (3.33%).

The dominant taxon was *T. hispida* group (21.67%) and Helicidae indet. (30%), the bulk of which are also likely to belong to *T. hispida* group. This taxon provides a signature for moist, well vegetated conditions. Other taxa, such as *P. muscorum* and *V. costata* demonstrate drier grassland conditions. Species of *Vallonia* spp. and Pupillidae account for 35% of the assemblage from L3354.

As with a number of the other deposits, this assemblage gives the impression of moist grassland. Conditions may have varied over the area of this deposit or on a seasonal basis, with wet winter conditions and summer drying. The large artefactual and animal bone assemblage may indicate an area of midden deposition.

L3355

Only one of the two samples from L3355 contained mollusc shells. In this sample, only 11 shells were present. These were of two taxa: *V. pulchella* and *Vallonia* sp.; *T. hispida* group and Helicidae indet. Both are characteristic of moist, well vegetated or grassland habitats.

Discussion

The richest deposits for molluscan remains that were investigated were L2156 from Roman Sub-Phase 2 and L3947 from Roman Sub-Phase 6. It is most likely that these represent buried soil deposits. The molluscan fauna in the other deposits are still likely to reflect vegetation on the surface but may not represent such active systems.

Roman Sub-Phase 2

Although L2156 was initially recorded as having formed in an area of standing water, the predominance of non-aquatic taxa demonstrates that this was not the case. Instead, it would appear that the area existed as moist or marshy grassland. In the absence of a sequence of samples it is not possible to determine how this varied over time. Beck Row lies close to the ancient fen edge and this is likely to have had an effect on the water table.

The presence of slum species, such as *L. truncatula*, *A. leucostoma* and *P. personatum* indicate seasonal waterlogging, while *P. muscorum* and cf. *S. oblonga* are likely to represent disturbance and areas of short vegetation or bare earth. It is possible that this western part of the excavated area was subject to grazing during the 2nd century. This is corroborated by a palynological assessment of monoliths from peat-filled hollows to the north of the present excavation (Wiltshire 2004), which

indicated grazing activity in the late Iron Age/ early Romano-British period. The results presented here from Roman Sub-Phase 2 suggest the continuation of such activities from earlier periods.

If the land was used for grazing, the presence of the dwarf pond snail (*L. truncatula*) is of note. This amphibious species is a notorious intermediate host for sheep liver-fluke (*Fasciola hepatica*) (Kerney 1999, 51), a significant parasitic infection of sheep, goats and cattle and, occasionally, humans. The parasite spreads in pools of water and the infectious stage is ingested with vegetation. As such it represents a significant threat to livestock grazing on wet, marshy pasture (e.g. Boray *et al.* 2007). Although it is impossible to prove, the type of habitats indicated by the molluscan fauna, along with the presence of *L. truncatula*, suggest that *Fasciola hepatica* could have represented a problem for health and yield of animals grazing in this fen-edge area. Liver-fluke has the greatest impact on sheep, where it can frequently be fatal, with the effect on cattle less pronounced but still problematic for yields. Horses and pigs are much more resistant to the infection than sheep and cattle (Boray *et al.* 2007).

Roman Sub-Phase 6

Layer L3947 appears to have supported longer, marshy grassland. The limited appearance of taxa of disturbed conditions (e.g. *P. muscorum*) and a corresponding higher level of taxa which have a lower tolerance for disturbance (e.g. *Carychium* spp.) suggests that this area of the site was not intensively grazed in the later part of Roman Sub-Phase 6. This may reflect the rising water table known during the later part of the Romano-British period (e.g. Upex 2008, 176), which could have rendered certain areas un-usable. At the fen edge site of Camp Ground, Earith, intensive ditch cutting and the peaty fills of these features around 350-410AD have also been taken to indicate rising water levels (Regan *et al.* 2004). The fact that L3947 overlies Roman Sub-Phase 6 features suggests that it may represent a soil horizon that developed following the abandonment of this area (SW) of the site for animal husbandry in the mid-late 4th century. If still grazed during the mid-late 4th century, it is unlikely that such activity was intensive.

Roman Sub-Phase 7

The Roman Sub-Phase 7 assemblage was less detailed than those from Sub-Phases 2 and 6. The results suggest the presence of moist grassland, with less signature for waterlogging than in deposits from previous phases. It is likely that this vegetation was growing on top of an area of middening and there appears to be limited evidence for an extensive, active soil fauna.

Conclusions

The results from the molluscan analyses are very localised in relation to the large site area but a few general comments can be made about conditions on the site during the Roman period. In the majority of deposits there is some evidence for aquatic taxa, indicating areas of standing water. All such taxa are those able to tolerate desiccation and it would appear that they reflect seasonal waterlogging of the soils. Due to the proximity to the fen edge, it is likely that parts of the site were

prone to periodic flooding. Such flooding would have been a greater problem further north on the site, closer to the fen edge, and permanent waterlogging of deposits at the Maltings was demonstrated by the peat filled hollows analysed by Wiltshire (2004).

It would seem that in the west of the site between the 2nd and 4th centuries there was a development from grazed wet grassland to much wetter, marshy conditions which may not have been able to sustain such intensive utilisation for animal husbandry. This may be linked to the more general hydrological developments of the fenland during the Romano-British period, which saw an overall increase in wetness in the late Romano-British and post-Roman periods (e.g. Upex 2008, 176). Rising water levels may begin to provide a context for understanding the cessation of activity at the Maltings during the mid 3rd century (Bales 2004, 62-63), with increased wetness potentially making exploitation untenable.

Site code	MNL638		MNL638		MNL638		MNL638		MNL638	
Sample	131		265		Multiple		Multiple		Multiple	
Context	2156		3611		3947		3354		3355	
Roman Sub-Phase	2		2		6		7		7	
Volume (litres)	40		40		170		120		20	
Terrestrial molluscs:										
<i>Carychium</i> sp.	1	0.33%	-	-	36	6.15%	-	-	-	-
<i>Carychium minimum</i>	3	1.00%	-	-	169	28.89%	-	-	-	-
<i>Carychium tridentatum</i>	-	-	1	1.69%	26	4.44%	-	-	-	-
cf. <i>Aplexa hypnorum</i>	-	-	-	-	2	0.34%	-	-	-	-
<i>Lymnaea</i> sp.	6	2.01%	-	-	22	3.76%	-	-	-	-
<i>Lymnaea truncatula</i>	4	1.34%	-	-	16	2.74%	-	-	-	-
Planorbidae indet.	10	3.34%	-	-	9	1.54%	-	-	-	-
<i>Anisus leucostoma</i>	7	2.34%	-	-	6	1.03%	2	3.33%	-	-
cf. <i>Gyraulus albus</i>	1	0.33%	-	-	-	-	-	-	-	-
Succineidae indet.	1	0.33%	-	-	-	-	-	-	-	-
cf. <i>Succinea oblonga</i>	2	0.67%	-	-	1	0.17%	-	-	-	-
<i>Cochlicopa</i> sp.	11	3.68%	2	3.39%	6	1.03%	3	5.00%	-	-
<i>Cochlicopa lubrica</i>	16	5.35%	1	1.69%	5	0.85%	-	-	-	-
<i>Cochlicopa lubricella</i>	-	-	-	-	2	0.34%	-	-	-	-
<i>Vertigo</i> sp.	-	-	1	1.69%	5	0.85%	1	1.67%	-	-
<i>Vertigo pygmaea</i>	-	-	-	-	1	0.17%	-	-	-	-
Pupillidae indet.	23	7.69%	7	11.86%	-	0.00%	2	3.33%	-	-
<i>Pupilla muscorum</i>	81	27.09%	15	25.42%	1	0.17%	4	6.67%	-	-
<i>Vallonia</i> sp.	8	2.68%	11	18.64%	50	8.55%	3	5.00%	1	16.67%
<i>Vallonia costata</i>	-	-	-	-	48	8.21%	8	13.33%	-	-
<i>Vallonia pulchella</i>	25	8.36%	11	18.64%	7	1.20%	2	3.33%	2	33.33%
<i>Vallonia excentrica</i>	11	3.68%	4	6.78%	9	1.54%	2	3.33%	-	-
<i>Punctum pygmaeum</i>	-	-	1	1.69%	3	0.51%	1	1.67%	-	-
<i>Discus rotundatus</i>	-	-	-	-	1	0.17%	-	-	-	-
Vitrinidae indet.	-	-	-	-	1	0.17%	-	-	-	-
<i>Vitrina</i> sp.	-	-	-	-	1	0.17%	-	-	-	-
Zonitidae indet.	-	-	1	1.69%	35	5.98%	1	1.67%	-	-
<i>Vitrea</i> sp.	1	0.33%	-	-	5	0.85%	-	-	-	-
<i>Vitrea crystallina</i>	-	-	-	-	25	4.27%	-	-	-	-
<i>Aegopinella</i> sp.	-	-	-	-	1	0.17%	-	-	-	-
<i>Aegopinella</i> cf. <i>nitidula</i>	3	1.00%	-	-	4	0.68%	-	-	-	-
<i>Oxychilus</i> sp.	-	-	-	-	3	0.51%	-	-	-	-
<i>Oxychilus</i> cf. <i>alliarus</i>	1	0.33%	-	-	-	-	-	-	-	-
<i>Oxychilus</i> cf. <i>helveticus</i>	-	-	-	-	1	0.17%	-	-	-	-

Helicidae indet.	40	13.38%	-	-	40	6.84%	18	30.00%	2	33.33%
<i>Candidula gigaxii</i>	1	0.33%	-	-	2	0.34%	-	-	-	-
<i>Trichia hispida</i> group	40	13.38%	4	6.78%	37	6.32%	13	21.67%	1	16.67%
<i>Pisidium</i> sp.	-	-	-	-	4	0.68%	-	-	-	-
<i>Pisidium personatum</i>	3	1.00%	-	-	1	0.17%	-	-	-	-
Indet.	29	-	33	-	209	-	48	-	5	-
Ostracods	-	-	-	-	18	-	-	-	-	-
Total	328		92		794		108		11	
Total identified	299		59		585		60		6	
Shells per litre	8.2		2.3		4.67		0.9		0.55	
Aquatic species	10.37%		0.00%		10.26%		3.33%		0.00%	
Non-aquatic species	89.63%		100.00%		89.74%		96.67%		100.00%	

Table 173: Terrestrial molluscs from selected bulk sample light fractions

6 DISCUSSION AND CONCLUSIONS

6.1 Topographical and environmental backdrop

Antony RR Mustchin and Dr John Summers

The fen-edge position of the former Smoke House Inn site, fully reviewed above (Section 3), is fundamental to understanding the development of the site over time, especially in terms of later prehistoric and Romano-British activity. Although the site's position at the confluence of Fenland and Breckland would have afforded a rich natural resource base, the immediate low-lying landscape (c. 5m AOD), heavily influenced by fluctuating Fenland water levels (below) would have also presented obvious physical constraints to settlement and economy. Any discussion of the archaeological evidence would therefore benefit from a brief review of past environment at this location.

Palynological assessment of waterlogged deposits at the Maltings site (MNL502; Wiltshire 2004), part of the same settlement landscape immediately adjacent to the historic fen-edge, revealed a loosely dated picture of 'patchy' Bronze Age woodland clearance and a later (seasonally) waterlogged landscape with evidence of grazing. The later grassland/ grazing environment was thought to reflect a more intensive land use up until at least the late Iron Age if not, tentatively, the early Romano-British period (*ibid.* 61). Cereal-type pollen was present in several samples analysed by Wiltshire (*ibid.* 56ff) though not in any abundance. Soils of the Isleham 2 Association, a major constituent of the immediate landscape, are however suited to the cultivation of horticultural crops, if suitably drained, or rough grazing otherwise (Soil Survey of England and Wales 1983, 20).

Environmental evidence from the current site, obtained through a targeted analysis of the archaeological molluscan assemblage (Summers this report – *The terrestrial molluscs*) presents a complementary record of past environment and human/ landscape interaction. The earliest material, dated to the early to mid/ late 2nd century AD (Roman Sub-Phase 2), was recovered from Layer L2156 in the western site quadrant. Recorded taxa were representative of a marshy grassland environment in the early Romano-British period, with evidence of seasonal waterlogging, indicated by the presence of slum species (e.g. *Lymnaea truncatula*), and possible grazing. Although molluscan analyses are only able to provide rather

broad reconstructions of palaeoenvironment/ depositional circumstances and human impact (Evans and O'Connor 2001, 141; Branch *et al.* 2005, 110), the data yielded in this case appear to agree with Wiltshire's (2004) appraisal of the late Iron Age/ early Romano-British landscape.

Further mollusca were yielded by 4th century material (L3947) from the south-west quadrant of the site. In contrast to the 2nd century data, analysis in this case revealed a landscape of marshy grassland which lacked evidence of intensive grazing. It is possible that these wetter conditions were the result of a rising water table linked to widely-documented mid-3rd century and later inundation of the Wash Fenlands (e.g. Upex 2008, 176). The final molluscan assemblage from the site, dating to the end of the Romano-British occupation, was suggestive of a moist grassland environment.

Combined, the environmental evidence suggests a heavily manipulated local landscape suggestive of a predominantly pastoral regime, at least within the immediate environs, subject to an environment increasingly at risk of waterlogging or flooding – a theme that persisted until at least the late Romano-British period. This contrasts with the archaeobotanical data however (Fryer 2004; Summers this report – *The charred plant macrofossils and charcoal*), which are characteristic of the large-scale production and processing of spelt wheat and hulled six-row barley. The immediate area subject to detailed excavation and reporting is relatively small however, and unlikely to reflect the broader agricultural landscape within which a multiplicity of activities, undoubtedly including the cultivation of cereals on areas of higher, dryer ground, were no doubt occurring throughout the later prehistoric and Romano-British periods.

6.2 Period I

Summary

Little evidence survived to shed light on the overall layout of the Period I site. Earlier prehistoric evidence, including Bronze Age features, indicated little more than transient, possibly seasonal exploitation of this part of the fen-edge. Iron Age evidence was similarly scarce with two, extremely truncated enclosures and two possible structures comprising the only features of any real note. The majority of Iron Age settlement evidence was confined to the northern quadrant, adjacent to the previously excavated Maltings site (MNL 502; Bales 2004), although pottery-rich Iron Age Pit F5470 was present towards the north-western corner of the south-west quadrant. Structure 1, thought to represent the heavily truncated remains of an Iron Age roundhouse, was identified still further to the south. However, if viewed in conjunction with evidence from surrounding sites, particularly the Maltings (*ibid.*), it is possible to build up a picture of a structured agrarian Iron Age landscape.

The Bronze Age evidence

Four Bronze Age features formed part of a linear pit/ posthole cluster running along the southern edge of the excavation. One of these, Pit F4320, yielded the largest Period I pottery assemblage (by sherd count and weight), comprising 14 Bronze Age sherds weighing 133g. 'Elevated' weights of flint were also recorded from this area

of the site. Further late Bronze Age/ Iron Age sherds were recovered from Pits F3387, F3527 and F4303 to the north-west. No contemporary structural evidence was encountered, although Gullies F3891 and F3998 perhaps indicated some manner of established early prehistoric settlement/ land use. However, the two undiagnostic Bronze Age sherds (20g) from F3891 do not in themselves provide a reliable date for these features. The nearest (possible) Bronze Age building was excavated on land to the 'rear' of the former Smoke House Inn (MNL 536) some 220m north of the current site.

Although the vast majority of the struck flint assemblage from the site is residual from Romano-British features/ contexts, a small collection of potentially *in situ* material, comprising a cuboid core, two blades and two debitage flakes (Peachey this report – *The struck flint*), was recovered from Bronze Age features. However, the blades (from F4303 and F4320) are early Neolithic in character and are more likely to represent redeposited finds (*ibid.*). The core, similar to a residual example from Roman Sub-Phase 3, is typical of flake cores of the later Neolithic and early Bronze Age (*ibid.*). Overall, the character of the flint assemblage is similar to that from the adjacent Maltings site (MNL 502), which comprised a modest range of Mesolithic, earlier Neolithic and Bronze Age material (Bates 2004, 45).

Bronze Age archaeology is well represented in the immediate landscape with a dense concentration of findspots, including lithic scatters and the settlement site of Rhedshore Farm (SHER MNL 408) known along the historic fen-edge. Finds from the area around Rhedshore Farm¹² were recorded by the Fenland Survey and include animal bone, lithics (including a barbed and tanged arrowhead), four quern fragments and four pot sherds with cord-impression decoration. Metal finds are also abundant along the fen-edge, the majority of these deriving from areas characterised by light soils (Martin 1999b, 38). A concentration of early Bronze Age Beaker domestic sites is also noted on the local geology (Bamford 1982, 32-33, fig. 8), and includes sites at Hockwold-cum-Wilton (Bamford 1982, 21ff), some 10km to the north of Beck Row. Prehistoric evidence from the immediate vicinity of the former Smoke House Inn includes residual Mesolithic tools and sparse Bronze Age material from the Maltings (MNL502), immediately to the north (Bates 2004, 3-7). Like the Maltings site (*ibid.* 62), Bronze Age evidence from the current site is difficult to interpret, although likely reflects domestic rather than funerary or 'ritualistic' activity.

The Iron Age farmstead

The remains of Enclosures 1 and 2 were encountered in the northern site quadrant, separated by some 40m. Structure 2, a possible four-post store house or granary (see below) was present immediately west of Enclosure 1. Although no defensive Oppida are known from this part of East Anglia (Cunliffe 2010, 198), enclosed settlements thought to reflect a broader middle Iron Age shift towards settlement nucleation (Bradley 1984, 139), have been identified. These are epitomised by sites like the multi-ditched enclosure complex at Fisons Way, Thetford (Gregory 1991a), the complexity of which far surpasses that encountered at the former Smoke House Inn. Iron Age (*Period II*) evidence survived more completely at the neighbouring Maltings however, and indicated levels of settlement organisation and material

¹² Listed on the Suffolk HER as Skelton's Drove (MNL 408; NGR TL 6882 7851)

prosperity not encountered by the latest excavation. This included at least two largely complete enclosures and three possible penannular buildings (Bales 2004, 7-8, fig. 4 and 62). If viewed in conjunction, Iron Age occupation at the Maltings and former Smoke House Inn can be said to have traversed an area of some 150m, extending south-south-east from the historic fen-edge. Ditch F1675 (Enclosure 1) in the north of the current site represents a possible southern continuation of Iron Age enclosure ditch 0147 recorded at the Maltings (Bales 2004, fig. 8).

Further Iron Age evidence from the immediate area includes extensive occupation deposits encountered by evaluation and excavation work at Skelton's Drove (SHER MNL 598; Craven 2008; SCCAS 2012). Similar evidence was encountered during works at the PIK Housing site (SHER MNL 570; Craven 2006; SCCAS 2012) and by work within the confines of the current site (SHER MNL608; Craven 2011). This evidence is thought to represent both agricultural and domestic activity (Craven 2011, summary; SCCAS 2012). Iron Age pottery scatters are also known from the nearby fen-edge (SHER MNL 408c and MNL 129a).

The pre-Roman structures

Despite the overall paucity of pre-Roman features at the former Smoke House Inn, two possible structures, comprising a four-post store house or 'granary' and a penannular building or roundhouse, were dated to Period I. Structure 1, evidenced by heavily truncated possible Drip-Gully F4032 and a small number of 'internal' features was located in the south-western quadrant. Although only surviving in part, Gully F4032 had an extrapolated internal diameter of c. 5.5m and was analogous to three late Iron Age ring ditch structures (ranging in size from c. 4m to c. 9m (internal diameter)) identified at the Maltings (Bales 2004, 7-8 and 62). Despite lacking datable evidence, there is a strong possibility that Structure 1 represented a small late Iron Age roundhouse.

The three possible penannular buildings reported from the Maltings were interpreted as such despite lacking internal features; rather than representing drip-gullies it was proposed that the ring-ditches themselves were structural, being likened to known Suffolk examples from Great Bealings and West Stow (Bales 2004, 7; after Martin 1999c). A possible late Iron Age/ early Romano-British roundhouse, this time represented by two concentric rings of postholes, was also found at the nearby Catchwater Drain site (Caruth 1996, 15-16), c. 1.4km to the west-south-west, whilst two Romano-British structural ring-ditches (possible roundhouses) have been reported from Brandon Road, Thetford (Atkins and Connor 2010, 11), c. 17km to the north-east of Beck Row. One of these was practically identical to Structure 1 at the current site, being 5.75m in diameter (*ibid.*).

Further afield, six 'eaves-gully' defined Iron Age structures were excavated at Wardy Hill Ringwork near Ely (Evans 2003, 39), c. 21.5km to the west-north-west of Beck Row. Structure VI at this site measured 5.25m in diameter and, similar to the current structure, encompassed an off-centre posthole; this 'minor building' was thought to represent an ancillary, possibly non-domestic arrangement. Additional Cambridgeshire examples include an assortment of middle/ late Iron Age to Romano-British roundhouses and possible roundhouses, all represented by their drip-gullies at the site of Lower Cambourne (Wright *et al.* 2009, 14ff), c. 40km to the

south-west. An analogous 2nd to 3rd century AD example was also found at the nearby site of Ash Plantation (Abrams and Ingham 2008, 48-9, fig. 3.10). These were all larger than Structure 1 at the Former Smoke House Inn however, ranging between 8.3m and 15m in diameter. A similarly large, late Iron Age to Romano-British roundhouse was represented by a penannular ditch, measuring c. 10.5m in diameter, found during work on the Baldock Bypass, Hertfordshire (Kier and Phillips 2009, 71).

A complex of six late early to middle Iron Age roundhouses/ round structures was excavated at the Cambridgeshire fen-edge site of Black Horse Farm, Sawtry (c. 52km west of Beck Row; Newton 2008). Of these, Roundhouses 5 and 6 were most similar to Structure 1 at the former Smoke House Inn; Roundhouse 5 was represented by a largely truncated and discontinuous ring gully with an internal diameter of c. 5.5m (Newton 2008, 22). These buildings were deemed ancillary to a larger contemporary structure (Roundhouse 4; *ibid.*) and were likened to similar 'minor buildings' at Wardy Hill (Evans 2003, 39; see above). It is possible, albeit tentatively, that Structure 1 at the current site represented an ancillary structure, secondary to a larger dwelling in the immediate vicinity for which no evidence survives. The internal features and finds from Structure 1 did little to further elucidate its possible function.

Comprising a quadrilateral arrangement of five postholes, Structure 2 was thought to represent the remains of a prehistoric post-built store house or granary. Numerous examples of this structural form have been reported from sites throughout mainland Britain and beyond (Gent 1983, 246). A variety of interpretations of prehistoric four- to nine-post structures have been presented in the literature, including excarnation platforms (Ellison and Drewett 1971; Carr and Knüsel 1997), covered work spaces or cooking shelters (Cunliffe 2010, 412; Stanford 1966), watchtowers (Ellison and Drewett 1971) and shrines (Downes 1997), although they are generally accepted as having comprised raised store houses intended to protect perishable commodities such as grain, dairy products and dried meat/ fish from moisture and rodent attack (Cunliffe 2010, 411; Cunliffe and Poole 1991, 115). Structure 2 at the current site was represented by four individual post settings (one having been recut) and measured c. 3m x 1m in plan. None of the five constituent features yielded finds of any description.

Further Suffolk examples of this structural form include ten late Iron Age four-post structures from Cedars Park, Stowmarket (Nicholson and Woolhouse forthcoming) c. 42km to the south-east of Beck Row. Nine of these were found within a contemporary settlement enclosure and displayed an average post-spacing of 2.36m (*ibid.*). If Ditch F1675, c. 1m north-east of the current structure, did represent a continuation of ditch 0147 at the Maltings site (see above) it is possible that Structure 2 occupied the south-eastern corner of an Iron Age enclosure clearly defined to the north (see Bales 2004, fig. 8). The north-eastern corner of this enclosure also encompassed a series of postholes including three regularly-spaced examples (0443, 0444 and 0452; *ibid.* fig. 9), forming an incomplete square measuring some 2.75m along each surviving side; no posthole was evident to the south-east. It is possible that this constituted the surviving portion of a second store house or granary-type structure equivalent and contemporary to Structure 2, some 50m distant. A similar Romano-British granary at Laurel Farm, Thorpe St Andrew, Norfolk

(Bishop and Proctor 2011, 73-4, fig. 43) also comprised three surviving postholes, the fourth having apparently been destroyed by post-medieval activity.

Additional Iron Age examples from the eastern counties include 13 middle Iron Age four-post structures, one four/ five-post structure, one six-post structure and a nine-post structure from Lodge Farm, St Osyth, Essex (Germany 2007, 54-5, fig. 39). A possible four-post structure, measuring 2 x 2m was also found at 1 High Street, Willingham, Cambridgeshire (Fletcher 2008, 6). The former group, interpreted as granaries, formed clusters in close association with contemporary roundhouses (Germany 2007, 54), possibly indicating the safeguarding of a valuable stored resource by the local Iron Age population (*ibid.* 58).

Further afield, large numbers of four-post structures have been reported from Danebury, Hampshire (Cunliffe and Poole 1991) and Stanwick, Northamptonshire (Summers *pers. comm.*). The evidence from both sites indicates bulk storage. Forty-five examples were recorded at Stanwick, eight of which included features rich in carbonised grain; it is possible that these structures burnt down whilst in use (*ibid.*). Monckton (2000, 5) states however that charred grain need not be present in the postholes of such structures unless they burn down or cereal processing occurred nearby.

Raised cereal storage, as well as preventing attack by pests, would perhaps have been preferable to subterranean storage strategies, also widely attested from Iron Age Britain, often in association with raised storage structures (Cunliffe 2010, 411), in a wet fen-edge environment such as Beck Row. Under suitably waterlogged conditions, the lateral flow of water through the ground can readily result in the spoilage of pit-stored grain (Reynolds 1979, 76). Possible Iron Age grain storage pits were however found at Ingham Quarry, Suffolk (Newton and Mustchin forthcoming), adjacent to the potentially waterlogged environment of Timworth Carr. No obvious storage pits were encountered within Period I at the former Smoke House Inn. The clustered pits recorded in the south-east quadrant are unlikely to have served as grain storage pits. Excavated into sandy soils, such features would require a lining of some description (*cf.* Garrow *et al.* 2006, 163), probably of wattlework or clay, but no such evidence was found.

'Missing' structures

Plotting the weights of prehistoric pottery and struck flint did not highlight any areas of the site where otherwise archaeologically 'invisible' structures may have been present. One potential 'activity area' indicated by these plots (Figs. 9-10) was identified to the north of Structure 1 and is likely to relate to activity within and around this structure.

'Special' deposits

It is possible that the butchered cattle skull from Pit F4570 (see Curl and Cussans this report – *The animal bone*; Table 163), accompanied by Iron Age pottery, represents curated deposition of some kind, following the removal of economically useful elements. Although archaeological remains of livestock species are often associated with routine, everyday activities (Mangell 2012, 196), many instances of

'special' deposition have also been reported. In fact, processed 'farmyard' species are most commonly represented within ritual animal deposits from prehistoric Europe (*ibid.*). Examples from East Anglia include a large volume of butchered animal bone from a possible early Iron Age pit (306) at New Road, Chatteris, Cambridgeshire (c. 30km west-north-west of Beck Row; Thatcher 2006 17-18). This feature also contained a sizable Iron Age potsherd and two Neolithic struck flints (Thatcher 2006, 17-18); the deposition of the bone at the New Road site was thought to represent ritualistic treatment of the assemblage (*ibid.*). Thatcher (2006, 18) further cites an example from Limes Farm, Landbeach, c. 25km to the south-west of Beck Row, where an Iron Age ditch was found to contain curated cattle skulls and other bone in close proximity to the articulated remains of a juvenile pig (after Connor and Sealey 2003). Cunliffe (2010, 576) states that Iron Age boundaries, particularly those enclosing habitations or defining significant communal spaces, were likely to have been considered powerful. As such, one might view the Landbeach ditch assemblage as having marked an important, possibly liminal point within the immediate Iron Age landscape. Although a similar 'ritualistic' context cannot be ruled out for the Period I cattle skull from the current site, the presence of canid gnawing around the base of the horncores would suggest that, rather than being treated with any sort care or reverence prior to deposition, the skull was left unguarded on the surface for at least a short period of time. As such, the material from Pit F4570 is more likely representative of refuse disposal, skulls being of comparatively low economic utility (Lyman 1999, 226, fig. 7.1, after Binford 1978), certainly as food items.

The pre-Roman economy

Finds evidence from Period I was poor. Other than the pottery assemblage (168 sherds weighing 2293g (inclusive of residual material from later features)), and modest struck flint assemblage (outlined above) only three finds of note were present. The first is a bone spindle-whorl (SF107; residual from Roman Sub-Phase 5) formed from the humeral head of a large terrestrial mammal (cattle or horse; Cooper this report – *The small finds*). A comparable example is known from Danebury in Hampshire (Cunliffe and Poole 1991). The second, also associated with textile manufacture, is a bone weaving tool (SF133) from Roman Sub-Phase 1 Ditch F4435. This implement type is common from late Iron Age sites (*ibid.*) and, in this case, either represents a residual find from a later feature or, like much of the Romano-British structural evidence from the site (see below), attests to a locally slow process of 'Romanisation'. Fragmented iron rings (ID200) from Roman Sub-Phase 2 Layer L3609 might also represent residual Iron Age material. These resemble a snaffle bit from a bridle, again with parallels from Danebury Hillfort (Cunliffe and Poole 1991, after Cooper this report – *The small finds*). However, equid remains were scarce from Period I features (Curl and Cussans this report – *The animal bone*; Chart 1).

Of the 120 animal bone fragments recovered from Period I features the majority are butchered cattle bones, with some pig/ boar and a single sheep/ goat mandible (*ibid.*). Based on this limited assemblage, little can be concluded regarding the form of animal husbandry being practiced in Period I (Cussans *pers. comm.*). Red and roe deer antler fragments are also present in the assemblage, including a naturally shed roe antler fragment displaying evidence of working. The working of antler is

commonplace throughout the Bronze Age and Iron Age; one regional late Bronze Age to middle Iron Age example of a worked antler base was found along the route of the Baldock Bypass in Hertfordshire (Rackham 2009, 55).

Like the Period I animal bone, the environmental remains convey little regarding the form of later prehistoric settlement and land use at the site. Evidence of crop husbandry was poor within the five bulk samples taken from Period I features, revealing only low densities of indeterminate cereals (Summers this report – *The charred plant macrofossils and charcoal*). Non-cultivated taxa suggest the possibility of an arable weed population, although the assemblage is too small to support any firm conclusions (*ibid.*). Based on the combined faunal and floral assemblage it is perhaps possible to speculate regarding a mixed agricultural economy at/ around the site, possibly dominated by pastoral activity (the grazing of cattle). The soils of the immediate landscape are ill-suited for arable production unless drained (Soil Survey of England and Wales 1983, 20). Although tentative, this pastoral regime sits well within the cleared grassland/ grazing environment outlined by Wiltshire (2004) at the adjacent Maltings site, which was thought to reflect intensive land use in the later pre-Roman period. Although the Bronze Age evidence from the current site suggests little more than occasional human activity, the encountered Iron Age features appeared to form a southerly extension of the enclosed farming landscape recorded at the Maltings (MNL 502; Bales 2004); based on the current animal bone evidence, it is perhaps possible that the enclosures functioned, at least in part, as livestock corrals. The minimal pre-Roman finds evidence suggests possible textile production, albeit on a small scale, while the pottery assemblage also indicates local settlement activity.

The late Iron Age/ Romano-British transition

The pottery record from the former Smoke House Inn site suggests a pre-Roman 'abandonment' of the landscape or hiatus in settlement activity. Typologically, the Romano-British assemblage only attests to activity from the first quarter of the second century onwards (Peachey this report, *The Roman pottery*). This hiatus was not identified at the adjacent Maltings however, where *Period III*, the late Iron Age and Roman occupation, spanned the 1st to 3rd centuries AD (Bales 2004, 3, 9), with the earliest 'Romanised' wares dating to the second quarter of the 1st century (Tester and Willett 2004, 40). As the two sites comprise adjoining elements of the same settlement landscape, we must conclude that any post-Conquest dearth of settlement activity was restricted to the current site, with settlement continuity being confined, at least locally, to the fringes of the historic fen-edge.

6.3 Period II

Summary

Evidence from the former Smoke House Inn provides an important insight into Romano-British rural settlement along the Suffolk fen-edge, especially in terms of settlement morphology and the rural economy. This represents an important contribution to the regional study of Romano-British rural sites and serves to redress a national bias in the literature towards higher status or villa settlements (cf. Going 1997, 37; Esmonde Cleary 1989, 100) (after Jones 2011, 277). The artefactual

record, despite the absence of outwardly domestic structures, reveals much about the nature of settlement in the immediate environs of the site. Furthermore, the evolving complex of Romano-British enclosures and trackways/ droveways, combined with the ecofactual and structural evidence, clearly illustrates an overwhelmingly agrarian economy based primarily on the rearing of livestock (predominantly cattle; Curl and Cussans this report – *The animal bone*) and the large-scale production and processing of cereals (spelt wheat and hulled six-row barley), the latter geared towards the generation of tradable surpluses (Summers this report – *The charred plant macrofossils and charcoal*). This is, in essence, compliant with the generalised picture of Romano-British settlement across Suffolk which was dominated by farmsteads (Plouviez 1999, 42). A distinct increase in enclosure-based activity is evident at the former Smoke House Inn from the early post-Conquest era onwards, culminating in a ladder system of enclosures dating to the mid-3rd to early 4th century. In contrast, the peak of Roman pottery discard was in the 2nd century. A late Romano-British shift towards much larger enclosures was evident prior to the abandonment of the Roman settlement in the mid to late 4th century+. 'Enclosure' activity in the western quadrant of the site also appeared to peak around the mid-3rd to early 4th century. The Period II structural evidence, generally late prehistoric in character and possibly indicating a lack of Romanisation (cf. Hegarty and Newsome 2005, 33; Jones 1987, 126) on this part of the Suffolk fen-edge, was predominantly agricultural in character.

The Romano-British enclosures

Forty-two enclosures were identified in association with the Romano-British occupation of the site (Table 174; Chart 9), although the true number present is likely to be far greater. The high density of Romano-British and later activity on the site no doubt resulted in the truncation and/ or loss of some features from the surviving archaeological record.

Roman Sub-Phase	Enclosure No.	Plan	Approximate Internal Area (m ²)	Mean Enclosure Size (m ²)	Minimum Total Enclosed Area (m ²)
1	3	Sub-circular	420	420	420
2	4	Rectilinear	1295*	436	3054
	5	Rectilinear	-		
	6	Rectilinear	-		
	7	Rectilinear	391		
	8	Rectilinear	310*		
	9	Rectilinear	-		
	10	Rectilinear	-		
	11	Rectilinear	540		
	12	Rectilinear	270*		
	13	Rectilinear	136*		
	14	Rectilinear	112*		
3	15	Rectilinear	1100*	538	3230
	15a	Rectilinear	-		
	15b	Rectilinear	-		
	16	Rectilinear	170		
	17	Rectilinear	640*		
	18	Rectilinear	500*		
	19	Rectilinear	520*		
	20	Rectilinear	300*		

4	21	Rectilinear	697*	284	2559
	22	Rectilinear	501		
	23	Rectilinear	420*		
	23a	Sub-	-		
	24	circular	154		
	25	Rectilinear	67.5		
	26	Rectilinear	67.5*		
	27	Rectilinear	322*		
	28	Rectilinear	175*		
	29	Rectilinear	155*		
5	30	Rectilinear	1725*	744	3718
	31	Rectilinear	260*		
	32	Rectilinear	608*		
	33	Rectilinear	960		
	34	Rectilinear	165*		
6	35	Rectilinear	5000*	1550	6200
	35a	Rectilinear	-		
	36	Rectilinear	300*		
	37	Rectilinear	90*		
	38	Rectilinear	810		

Table 174: Summary of Romano-British enclosures; *minimum sizes based on areas exposed within the excavation area

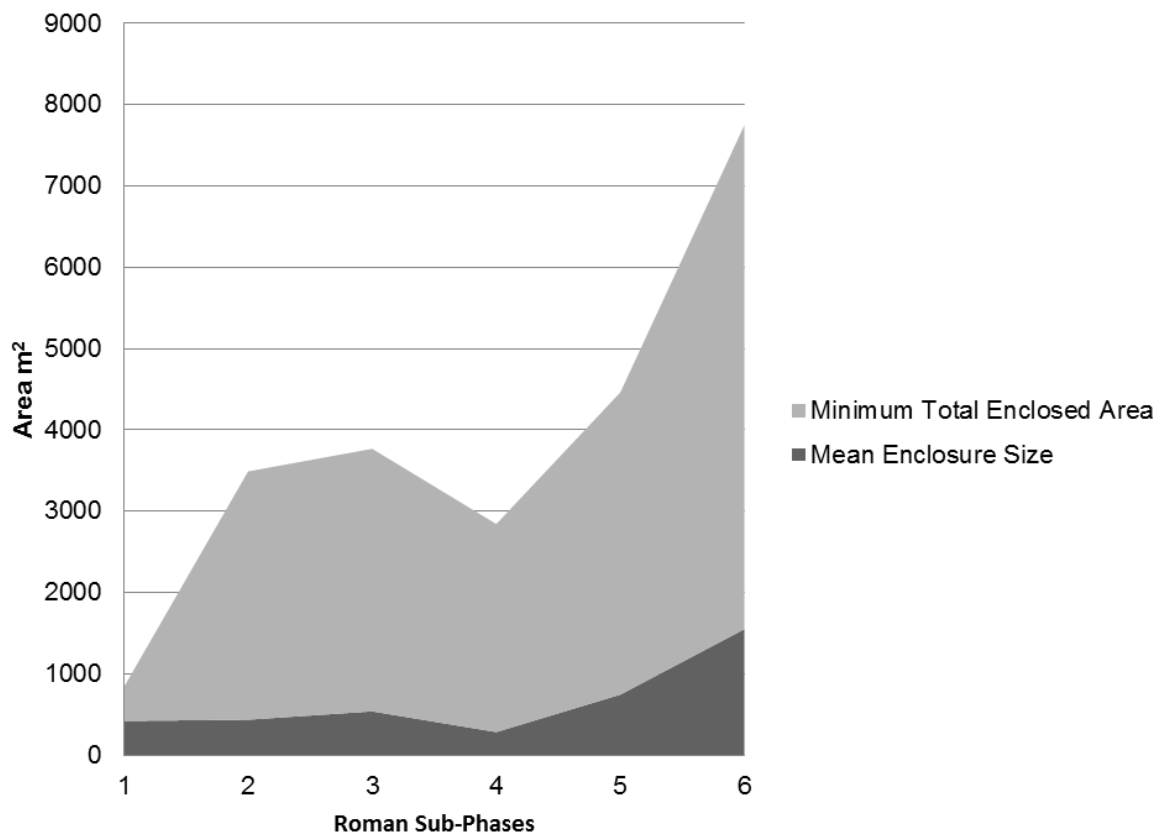


Chart 9: Romano-British enclosure size by sub-phase (based on Table 174 (above))

The uppermost soils present across most of the site (of the Isleham 2 Association) are prone to winter flooding and wind erosion (Soil Survey of England and Wales 1983, 20). Soils of the Swaffham Prior Association, present in the far north and east of the site, are at slight risk of water erosion (Soil Survey of England and Wales 1983, 8). The nature of this uppermost geology was reflected by the fills of the Period II ditches and gullies, which were generally few in number and appeared to

represent natural infilling, probably over relatively short periods. Such a scenario would necessitate the recutting/ replacing of enclosure boundaries and other such features on a regular basis, helping to explain the large number of intercutting ditches and gullies present within certain Roman sub-phases. For example, Roman Sub-Phase 2 contained three intercutting 'systems' of enclosures in the northern quadrant alone (Enclosures 15-18), the constituent features of which all followed broadly similar alignments.

The earliest Identified Romano-British enclosure (Enclosure 3; Fig. 13) was sub-circular in plan and similar to the Period II (Iron Age) enclosures at the Maltings site (Bales 2004, fig. 4), immediately to the north, potentially indicating a continuation of late prehistoric land use and economic practice. This may suggest a delayed process of Romanisation in the immediate area, and possibly beyond, following the Conquest of AD 43 (discussed further below). The single fills of the features forming Enclosure 3 conformed to the above proposed model of natural infilling and yielded few finds.

Enclosure 4 (Roman Sub-Phase 2 Enclosure System 1; Fig. 20) superseded Enclosure 3 in the same area of the northern quadrant but was drastically different in terms of its form. The surviving western and northern edges of this rectilinear enclosure were roughly equal in length, 'encompassing' an area of some 1295m². Although, like Enclosure 3, the northern boundary of Enclosure 4 contained only a single fill, its western boundary contained a total of three fills along its length. Nevertheless, this area of the site contained two subsequent Roman Sub-Phase 2 enclosure 'systems', suggesting that Enclosure 4 may still have been relatively short-lived. A similar rectilinear pattern of enclosures prevailed from the early 2nd century onwards, with the majority of major ditches/ gullies conforming to either north-east to south-west or north-west to south-east alignments. Minor exceptions were noted however, including sub-circular Enclosure 23a, a secondary 'insert' within rectilinear Enclosure 23 (Fig. 96), and the slight variance in alignment between the northernmost features of Roman Sub-Phase 6 Enclosure System 1 and those further to the south. However, the economic evidence (below) sheds no light on possible reasons for any such variations. The animal bone data, for instance, show no major economic shifts within Period II, with all Roman sub-phases displaying a predominance of cattle with lesser numbers of sheep/ goat and porcine remains.

From the early 2nd to early/ mid-3rd century (Roman Sub-Phases 2-4), the north of the site was characterised by successive complexes of relatively modest rectilinear enclosures, ranging in size from 67.5m² to at least 1295m² (Table 174). The latest of these (Roman Sub-Phase 4 Enclosure System 1) most likely persisted beyond the mid-3rd century. The less likely alternative is that the northern quadrant was largely abandoned following Roman Sub-Phase 4 prior to a 4th century resurgence of enclosure-based activity in this area. The south-east and south-west quadrants saw the development of similar rectilinear enclosures between the 2nd and mid-3rd/ early 4th century (Roman Sub-Phases 2, 3 and 5), culminating in a clearly defined 'ladder' system (Enclosures 30-33; see below). The mid-3rd to early 4th century also witnessed the first significant activity in the western quadrant (Roman Sub-Phase 5 Enclosure System 2). The penultimate Romano-British sub-phase (6) was characterised by one massive enclosure or field (Enclosure 35; at least 5000m²) and four subsidiary or 'satellite' enclosures, superseding the Roman Sub-Phase 5 ladder

system and most likely remaining in use until the cessation of Romano-British settlement (c. late 4th century+). This fundamental reordering of the landscape and the large-scale abandonment of sub-circular enclosures, early within the Romano-British settlement, was no doubt a response to incoming Roman jurisdiction. It is interesting to note, however, that with the exception of Structure 3 (Roman Sub-Phase 4; below), the surviving structural evidence retained an outwardly late prehistoric character throughout the Roman occupation. Hegarty and Newsome (2005, 50) advise however that the process of Romanisation need not have involved any reform of the rural landscape or settlement structure.

The controlling ‘hand’ of Rome in the restructuring of this fen-edge landscape is perhaps best manifested in the mid-3rd to early 4th centuries (Roman Sub-Phase 5) ladder system (Figs. 120-1). Although ladder systems are most common in East Yorkshire (e.g. Richardson *et al.* 2011; *cf.* Halkon and Millett 1999), a similar (early to middle Roman) system is known from Childerley Gate, part of a broader Romano-British upland agricultural landscape to the west of Cambridge (Abrams and Ingham 2008, 52ff). The Childerley Gate system appears to have been associated with a mixed farming regime (Abrams and Ingham 2008, 63) with a predominance of cattle in the recovered archaeozoological assemblage alluding, at least superficially, to animal husbandry either on or near to the site. Secondary evidence also existed for the breeding of horses at Childerley Gate (*ibid.* 61). The charred plant macrofossils from this site did not clearly indicate crop husbandry in association with the ladder system although neither was this entirely ruled out (*ibid.* 63).

The level of infrastructure reflected by the Roman Sub-Phase 5 ladder system was thought to possibly indicate a shift in core economic practice in the later Romano-British period. Subsequent Enclosure 35 also embodied an extreme reordering of the site’s landscape and was thought to herald similar economic change. Fulford (1982, after Wallis 2011, 74) proposes a number of reasons for Roman land enclosure, including agriculture/ horticulture and livestock containment. It was hoped, therefore, that any identified variances in Roman economic practice at the site might help to explain sequential alterations in the size (Table 174; Chart 9) and form of enclosures. The environmental evidence, however, does not show any such variation, with a predominance of spelt wheat and hulled six-row barley – the relative importance of which did not dramatically fluctuate over time – being evidenced throughout Period II (Summers this report – *The charred plant macrofossils and charcoal*). This pattern of crop husbandry matches that recorded at the neighbouring Maltings site and nearby West Row Primary School (Fosberry 2010, 22; Fryer 2004, 53), although the local fen-edge soils are ill-suited for cereal cultivation (Summers this report – *The charred plant macrofossils and charcoal*). The molluscan evidence from the site, although limited, also suggests variably marshy and waterlogged surface conditions during the Romano-British period (Summers this report – *The terrestrial molluscs*), better suited to seasonal grazing. The Period II pastoral economy, characterised throughout by a predominance of cattle and lesser quantities of sheep/ goat and pigs, was similarly consistent (Curl and Cussans this report – *The animal bone*), and offers little indication as to why the later Roman landscape should have diverged from earlier patterns of enclosure. It appears, therefore that, regardless of shifts in their size and morphology over time, the Period II enclosures were largely pastoral in nature. This system of rural enclosures is

typical of such ‘...extensively and continuously bounded [Romano-British] landscapes’ recorded across the Midlands and south of England’ (Taylor 2007, 113).

The Romano-British trackways/ droveways

Bar Roman Sub-Phases 3 and 5, evidence for ditched trackways/ droveways linked to the Romano-British enclosure systems was ‘patchy’ and largely circumstantial. Examples include the narrow Roman Sub-Phase 1 trackway or double-ditched boundary marking the south-western edge of Enclosure 3 and the similar arrangement of ditches forming the north-western edge of massive Roman Sub-Phase 6 Enclosure 35 (Figs. 13 and 144). Both of these possible trackways, if genuine, would have been only c. 1m wide.

A possible broad trackway/ droveway was seen to run north-west to south-east along the south-western edge of Enclosure 15 (Roman Sub-Phase 3 Enclosure System 1), one of the larger Romano-British enclosures recorded, measuring at least 1100m² internally. A similarly wide trackway/ droveway was present a short distance to the north-east, post-dating the above and running between Enclosures 17 and 18 (Roman Sub-Phase 3 Enclosure System 2; Fig. 59). The north-west to south-east alignment of this second trackway was later recut, and marked the north-eastern edge of Enclosure 19 (Roman Sub-Phase 3 Enclosure System 3). The continuity of alignment and position displayed by these northernmost trackways/ droveways lends credence to their interpretation. They did not appear to continue to the south however.

The most clearly defined trackways/ droveways at the former Smoke House Inn belonged to Roman Sub-Phase 5 and were perfectly aligned with the ladder system of enclosures (Enclosures 30-33) discussed above (Figs. 120-1). Broad trackways/ droveways were seen to border this system to the north-east and south-west, whilst a shorter section of possible trackway may have (tentatively) marked its north-western edge. The trackway(s)/ droveway(s) running parallel to the south-western edge of Enclosures 30-33 may have been continued in the western quadrant by Ditches F2122 and F2151, although this remains uncertain. Possible trackways/ droveways were also interpreted running perpendicular to the ladder system, aligned north-east to south-west across the south-west quadrant. This arrangement of Roman Sub-Phase 5 trackways/ droveways was clearly planned, affording access to the identified enclosures, although no clear ‘entrances’ were visible; access via wooden bridges is a distinct possibility (*cf.* Regan *et al.* 2004, 97).

The broad north-west to south-east aligned trackways/ droveways present in Roman Sub-Phases 3 and 5 appeared to run towards the historic fen-edge (Fig. 4). It is highly likely, given the dominance of cattle and sheep/goat in all Roman sub-phases (see below), that access between the site’s enclosed landscape and the fen edge was required for the watering of livestock. The ladder system of enclosures recorded at Childerley Gate, Cambridgeshire, was similarly associated with ‘droveways’ leading towards a nearby pond (Abrams and Ingham 2008, 74), presumably also for the watering of livestock. Evidence from RAF Lakenheath suggests the existence of Romano-British droveways connecting winter heathland pastures to summer grazing lands on the fen-edge (Caruth 2003; Craven 2005). Similarly, at the early Bronze Age settlement of West Row Fen (Martin and Murphy

1988), a short distance to the south-west of Lakenheath, it was suggested that the occupants were engaged in comparable medium-distance transhumance between seasonal pastures.

The only other possible trackway/ droveway of any note was identified running c. north-east to south-west across the south-west quadrant in Roman Sub-Phase 2. Chiefly represented by F4389 and F4038, the surviving c. 35m long section of this ditched trackway/ droveway was wholly truncated at its north-eastern end by modern building foundations; its south-western course continued beneath the excavation edge. The extrapolated north-eastern course of this trackway/ droveway headed towards Enclosure 13 and it may have been related to activity in this area of the site.

The Romano-British structures

The Period II structural evidence appeared overwhelmingly agricultural in nature. No structure displayed or was associated with archaeological deposits or features indicative of domestic activity. It is possible, however, that habitation areas may exist to the south-east of the excavated area. Certainly, the artefactual assemblage from the site attests to local settlement activity on some considerable scale (see below).

Structure 3

The earliest identified Romano-British structure comprised the heavily truncated remains of a possible aisled building (Structure 3) dated to the early to mid-3rd century (Roman Sub-Phase 4). Little evidence for the function of the building was recovered, although its north-east/ south-west alignment exactly matched that of the larger aisled buildings recorded at the Maltings site (Bales 2004, 13ff), c. 160m to the north. The date of Structure 3 corresponds to the use of the neighbouring aisled 'maltings' (2nd to mid 3rd century AD) and it is likely to have comprised a similar agricultural or ancillary structure, albeit of a smaller scale. Like the 'maltings' (Bales 2004, 15), Structure 3 was aligned with nearby boundaries; it appears that the building occupied the eastern corner of a substantial agricultural enclosure (Enclosure 22), possibly serving as storage for tools/ commodities or fulfilling some function linked to livestock husbandry. Aisled buildings have also been interpreted as habitations (Richmond 1969, after Perring 2002, 53) but no evidence to support such an interpretation was encountered in this case.

Structures 4, 5 and 6

The mid-3rd to early 4th century (Roman Sub-Phase 5) saw the construction of at least three post-built structures (Structures 4, 5 and 6) in the south-east quadrant of the site. Structure 5 was the most complete example recorded and comprised the remains of a possible four-post structure bounded by a shallow sub-square gully (F5134). The north-eastern edge of Structure 5 had been clipped by SCCAS Trial Trench 5 which revealed a continuation of Gully F5134. Structure 4 was similar in appearance, whilst Structure 6 comprised only a short section of surviving gully (F5155).

Although more often associated with the Iron Age, regional Romano-British parallels to these structures have been reported from Lower Cambourne, Cambridgeshire (c. 40km to the south-west) and Spong Hill, Norfolk (c. 51km to the north-east) (Rickett 1995, 32; Wright *et al.* 2009, 18). The later date of the Beck Row examples may attest to the enduring 'native' character of the settlement long after the Roman Conquest and subsequent Romanisation of England. The occurrence of Iron Age four-post structures within encircling gullies has been noted at Danebury, Hampshire; the gullies being interpreted as a provision to aid drainage (Cunliffe and Poole 1991, 116; Poole 1984, 98).

Structures 4 and 5 were aligned with a substantial enclosure ditch to the immediate north-west which may have marked the periphery of activity in this area. Stead (1968, 158) and, more recently Cunliffe (2010, 411) have both observed that, predominantly, four-post structures are found occupying the edge of settlements. As such, given the dearth of domestic evidence within the excavated area, Structures 4-6 may indicate the presence of contemporary habitations to the south-east (beyond the excavation limits). Unlike Iron Age examples which, in addition to granaries, have been interpreted as watchtowers (Ellison and Drewett 1971, 186), 'worksheds' (Stanford 1966, 7-8) and excarnation platforms (Carr and Knüsel 1997, 168), the Romano-British four-post structures at the former Smoke House Inn are likely to have comprised 'store houses' (after Cunliffe and Poole 1991, 115) for commodities such as fleeces, grain, processed meat/ fish or dairy products. Botanical evidence from the site (see Summers this report, *Charred plant macrofossils and charcoal*) suggests the bulk cleaning and storage of spelt wheat for trade throughout the Romano-British period, with Structures 4-6 and 7 (see below) providing either short- or long-term storage solutions. There was no evidence (structural or artefactual) to suggest that the structures functioned as shrines.

Structure 7

Structure 7 was located immediately to the north-east of Structure 5 and appeared to respect the alignment of encircling Gully F5134. The features forming Structure 7 were tentatively phased during post-excavation analysis based on alignments with nearby boundaries, but almost certainly indicate a continuance of the 'storage' activity associated with Structures 4, 5 and 6 in this area of the later Romano-British landscape. Structure 7 comprised five unbounded postholes and was similar in plan to an Iron Age/ Romano-British five-post 'granary' structure excavated at Lower Cambourne (Wright *et al.* 2009, 18), and a middle Iron Age example at Lodge Farm, Essex (Germany 2007, 54, 56, fig. 40).

Structures 8 and 9

Assigned to Roman Sub-Phase 6 (early to mid/ late 4th century), Structures 8 and 9 were thought to comprise livestock pens or similar. Located c. 103m apart, the roughly semi-circular gullies forming these possible structures had squared corners and were similarly oriented, being open to the north-west. Ditch F1374 (=1400) may have served to block the open side of Gully F1408 (Structure 9) however, effectively enclosing an area of some 10m². The area partially enclosed by Structure 8 measured c. 25m². It is possible that the features forming these 'structures' formed footings for wattle fencing or similar.

An Iron Age parallel to the arrangement of gullies displayed by Structure 9 was found at Knapwell Plantation, Cambridgeshire (Wright *et al.* 2009, 41). This comprised an arc (60197) with a projected diameter of 9.5m, 'closed' to the east by a linear gully (60431). This larger D-shaped arrangement had an *internal* area of roughly 45m² (Wright *et al.* 2009, 39 fig. 16); its possible function is not discussed. A second possible parallel is Later Roman (200-400 AD) Structure 6 at Kilverstone, Norfolk (Garrow, *et al.* 2006, 118). This structure comprised a roughly semi-circular gully measuring 6.8 x 3.5m, and was assumed to have surrounded a roundhouse for which no other evidence survived.

Structure 10

This partially surviving (possible) Roman Sub-Phase 6 roundhouse was the only Period II structure to be identified within the western quadrant. Like Structure 6 at Kilverstone (Garrow, *et al.* 2006, 118), Structure 10 was roughly semi-circular in plan. Unlike the Kilverstone example, however, a small group of pits and postholes to the south and south-east of this structure may have been associated with its use; this is tentative however. The surrounding features were heavily truncated and the function of Structure 10 remains uncertain.

Structures 11 and 12

Like structure 10, the individual features forming Structures 11 and 12 (curvilinear Ditches F1942 and F1925 respectively; Roman Sub-Phase 7) were 'open' to the south-east. Structure 12 was the larger of the two and appeared to comprise a reinstatement/ replacement of Structure 11, overlying the latter in roughly the same position. These horseshoe-shaped structures almost certainly fulfilled the same function. The 'open' sides of Structures 10 and 11 were facing away from the prevailing winds in this area (www.windfinder.com) raising the possibility that they formed semi-enclosed shelters or windbreaks of some description.

The nature of the Romano-British structural evidence

Bar Structure 3, the only rectilinear structure encountered, all of the Romano-British structures at the former Smoke House Inn were distinctly late prehistoric in character. This was no more apparent than in the remains of Structure 10, a putative ring ditch structure or 'roundhouse' dated to the 4th century AD. Four-post store house or 'granary' structures, mid-3rd to 4th century examples of which were identified at the current site, are also more commonly associated with the late Iron Age or early Romano-British period. This 'survival' of Iron Age structural types within a post-Conquest setting is not entirely unexpected however. Atkins and Connor (2010, 107) point out that the sites of Redcastle Furze (Andrews 1995) and Melford Meadows (Mudd 2002), both in Thetford, "...join a growing corpus of evidence which suggests that in some places an Iron Age building tradition continued long after the establishment of Roman rule". Possible late 1st century roundhouses were also encountered at Brandon Road, some 17km north-east of Beck Row, revealing an apparently slow uptake of Roman building styles by the region's native population (Atkins and Connor 2010, 107). Furthermore, circular structures securely dated to the later Romano-British period were identified at Kilverstone, on the north-eastern edge of Thetford (Garrow, *et al.* 2006, 165).

Romanisation is defined by Jones (1987, 126) as ‘...the inculcation of Roman values, language, material culture and loyalties in a provincial, non-Roman society’. Broadly speaking, archaeological evidence from East Anglia, especially Norfolk and Suffolk, suggests only a slow process of Romanisation following the conquest of AD 43. Certainly, the above structural evidence would seem to suggest a continuation of later Iron Age social/ economic traditions. A similar model is apparent along the Suffolk coast, where continuity of pre-Roman settlement patterns is evidenced by a general dearth of roads and villas (Hegarty and Newsome 2005, 33). The county also lacks large, walled towns such as were developed elsewhere, e.g. *Durobrivae* in Cambridgeshire (Fincham 2004) and *Venta Icenorum*, the *civitas* capital of Norfolk (Davies 2009, 165ff), a fact possibly related to the Boudiccan revolt of AD 60/ 61 (Warner 1996, 40). Hegarty and Newsome (2005, 50) state, however, that Romanisation need not be reflected in a reorganisation of the landscape or a major shift in building practices. Nonetheless, the formation and development of rectilinear enclosure systems from the 2nd century onwards at Beck Row (above) does suggest some fundamental shift in land use and/ or land organisation, reflecting, at least in part, an early uptake of Roman economic practice by the local population.

The Roman pottery from the site (see below) supports an early and large-scale adoption of a Romanised ‘cultural package’, with fine wares and associated samian indicating a late 1st century (more likely early 2nd century) start for Roman occupation (Peachey this report – *The prehistoric and Roman pottery*). The consumption/ discard of Roman forms peaked during the 2nd century (*ibid.*). Black-surfaced reduced wares – a ‘Romanising’ form that may have been manufactured up to the mid 2nd century – are also present in the assemblage (*ibid.*). Likewise, a Crummy Type 1 bone hairpin – dating from the Flavian (AD 69-96) to the end of the 2nd century – from Roman Sub-Phase 2 Layer L3609 (Cooper this report – *The small finds*), suggests the adoption of Romanised goods on a personal level relatively early post-Conquest. The earliest coins recovered from the site are a *dupondius* from the reign of Trajan, dated AD 104-111, and six 2nd century silver *denarii* (Davies this report – *The coins*). In summary, although the structural evidence points towards a relatively slow process of Romanisation at the site, the artefactual assemblage suggests a far more rapid and substantial uptake by the local population of Roman socio-cultural and economic traits.

‘Missing’ structures

Plotting the weights of Roman pottery and CBM (Figs. 17-18, 49-50, 93-4, 118-9, 141-2, 175-6 and 178-9) did not highlight any potential areas of the site where otherwise archaeologically ‘invisible’ structures may have been present. In fact, the weights of CBM recorded were so minor as to suggest that Romano-British structures at the site did not include a significant CBM component. This would agree with the generally late prehistoric character of the structural evidence. It appears that the CBM was ‘dumped’ at the site from elsewhere; perhaps a settlement area to the south. It is unlikely that CBM would have been transported far from its point of origin to be discarded. The 194 Fe nails (including complete and fragmented examples) recovered from the site are all of Manning’s Type 1, the standard type used for timber construction (Cooper this report – *The small finds*). Cooper (*ibid.*) notes examples from Roman Sub-Phases 1-4 and 6, with notable groupings from Roman Sub-Phase 3 Ditch F2322 (=3236=3603; L3237) and Roman Sub-Phase 4

Pit F1988 (L3233), comprising six and c. 20 examples respectively. The former concentration was found within c. 30m of Structure 3, but cannot be reasonably associated with this structure, while the latter was isolated from contemporary structural evidence. Neither concentration is great enough to infer the existence of otherwise 'invisible' structures, although the overall nail assemblage does attest to the local use of timber construction techniques. Regional examples of Manning's Type 1 nails associated with structural remains include finds from the Roman period at Spong Hill, Norfolk (Rickett *et al.* 1995, 77 and 82).

Two instances of iron structural fittings were also recovered from Roman Sub-Phases 2 and 6 (respectively) at the current site. The first comprises five fragments of iron bar, possibly part of a window grille or hinge, while the second is a double spiked loop (Cooper this report – *The small finds*). Again, these had no direct relationship with structural features, although allude to the existence of substantial structures within the local landscape.

The Romano-British economy

The pottery, small finds and coins

The Roman pottery assemblage firmly attests to settlement activity from the early 2nd century AD with consumption/ deposition peaking during that century (Peachey this report – *The prehistoric and Roman pottery*). The wares present indicate an established trade network from the outset and include a mix of imported fine wares and more 'utilitarian' regional fabrics and forms (*ibid.*). The proportions recovered are representative of a high level of domestic consumption (*ibid.*), in apparent contrast to the agricultural nature of the encountered archaeology (see below). Indeed, the high proportion of samian cups present is more typical of groups from major urban centres (Willis 2005, after Peachey this report – *The Prehistoric and Roman pottery*), although might tentatively be linked to the presence of the Roman 'maltings' to the north (see Bales 2004). Similar proportions are reported from Essex sites (Peachey this report – *The prehistoric and Roman pottery*). A mica-dusted lamp from Roman Sub-Phase 4 Ditch F1929 is also more typical of military or urban sites. It is possible, therefore, that the current site was part of a major pottery distribution network. Certainly, the presence of Horningsea storage jars throughout Period II suggests established economic links with the Cambridgeshire fen edge, while similar links can be demonstrated with the Wattisfield industry of Roman Suffolk (*ibid.*). This is an important point considering the lack of major infrastructure close to the site; no known or possible Roman roads pass close to the site and the River Lark runs c. 3.2km to the south of Beck Row. Horningsea vessels were perhaps integral to the local/ regional transport of grain; the environmental evidence from Period II points towards the production of surplus cereal for trade (Summers this report – *The charred plant macrofossils and charcoal*). It might be, therefore, that despite the lack of obvious infrastructure, the site functioned as a point 'in transit' in the trade of pottery and of goods traded within pottery vessels between the west (the Fens, the Cambridgeshire fen edge and beyond) and the east (rural Roman Suffolk). The high proportion of imported fine wares might also suggest the current site and its environs, including the neighbouring Maltings site (MNL 502), formed part of an 'estate' linked to a high-status settlement or villa in the local landscape. The Thistley

Green villa (SHER MNL 064) or possible high-status building at Scott Avenue/Hanmer Avenue (SHER MNL 487) are possible candidates.

The small finds and coin assemblage from the current site also suggests a degree of material wealth. Objects of personal adornment and dress include five copper alloy brooches, comprising four Colchester one piece brooches of Conquest era date and a single 2nd century repousse disc brooch (Cooper this report – *The small finds*). Two Colchester derivative brooches were also encountered by the forerunning archaeological evaluation of the site (Craven 2009, 57). Further dress items include two copper alloy hairpins with 1st/ 2nd century parallels elsewhere and two bone hairpins, respectively of Crummy's Type 1 and 3 (Cooper this report – *The small finds*). Three Romano-British toilet instruments – two nail cleaners and a spoon probe – were also present (*ibid.*).

Roman coins from the site only attest to a minimal pre-3rd century presence, but include a clustered group of five silver *denarii* of 2nd century date, possibly a purse group or hoard deposited or lost at the time of Lucilla, eldest daughter of Marcus Aurelius (Davies this report – *The coins*). There is predominance within the assemblage, however, of later 4th century coins (*ibid.*). The 47 coins recovered by the evaluation phase are also of 3rd to 4th century date (Plouviez 2009, 56). It is possible that local trade prior to the mid-3rd century was largely undertaken without the use of Roman coinage, perhaps attesting to a slow process of Romanisation, or that the local economy was less established prior to this time. The latter does not agree with the pottery evidence (see above). It is highly likely, given the comparatively small number of coins encountered by the excavation, that some recovery bias is represented. As such, any interpretation of the assemblage remains tentative.

A small number of copper alloy sheet fittings were present in Roman Sub-Phases 2 and 5, and as residual material in Period III. The residual material, a 'domed stud with integral tapering shaft', was probably used in furniture upholstery (Cooper this report – *The small finds*).

The more utilitarian small finds from Period II include four fragments of whetstones/ sharpening stones with parallels at Colchester (*ibid.*). Possible sources of the fine-grained sandstone employed include Lincolnshire and Kent (*ibid.*). Other regional imports include a single fragment of Hertfordshire Puddingstone quern (*ibid.*). The Roman quern assemblage also includes substantial fragments of four Mayen lava querns, imported from Germany, and a single Gritstone example (*ibid.*). Several fragments of vessel glass, all from 1st to 2nd century bottle forms, were also recovered in addition to two possible lead weights (*ibid.*). The proportion of lava querns to regional examples is interesting and indicates either direct or indirect trading links with continental Europe, possibly via Colchester (*ibid.*). Other East Anglian examples include a fragment of lava rotary quern of possible Roman date from Great Bentley, Essex (Brooks and Holloway 2007, 2) and more numerous examples from Colchester (Buckley and Major 1983, 76; Crummy 2005, 4). However, overall, the 'utilitarian' finds assemblage is not unusual for a rural Romano-British site in East Anglia.

Animal husbandry

The Romano-British animal bone assemblage contained all of the major ‘farmyard’ species with cattle dominating every sub-phase (Curl and Cussans this report – *The animal bone*). The on-site breeding of cattle is evidenced by the presence in the assemblage of neonates, while the large size of some individuals might indicate selective breeding for this trait (*ibid.*); various ‘breeds’ of different stature are present however. Larger animals may have been required for religious purposes – perhaps as sacrifices (see below) – although pathological traits suggestive of traction were also ubiquitous (*ibid.*). Butchered cattle bones were abundant throughout Period II and largely reflect domestic consumption and similar processing (*ibid.*). However, cattle would have been exploited for other by-products such as milk, horn and their hides; skinning evidence was frequently recorded on the cattle bone and may be linked to tanning (see below; *ibid.*).

Sheep/ goat were the second most abundant domestic species in all Roman sub-phases bar Sub-Phase 6, where porcine remains were present in greater numbers (*ibid.*). These would have been raised for wool, breeding, meat, hides and horn. An increase in numbers of neonate and juvenile remains in Roman Sub-Phase 6 might indicate an increase in dairying during the later Romano-British period (*ibid.*).

Pigs were represented in all Roman sub-phases and would have represented a good source of meat (*ibid.*). A recorded increase in the relative importance of this species during the later Romano-British period at the site is mirrored by other regional sites such as West Stow (Crabtree 1990).

Fowl remains from the site showed some indications of stock improvements during Phase II, perhaps linked to selective breeding or trade. One deposit of six birds in Roman Sub-Phase 6 may have represented the disposal of dead cock-fighting birds, although distinctly male traits were absent from the remains (*ibid.*). It is possible that this group had religious connotations (see below; *ibid.*).

Canid remains are present from all Roman sub-phases and include both toy and larger breeds (*ibid.*). Smaller breeds have also been noted at other regional and neighbouring sites (e.g. Curl forthcoming a). The multiple occurrences of miniature breeds might indicate local breeding and/ or regional trade (*ibid.*). The trade in toy dogs might have been status-linked, once again suggesting that the site formed part of an economically rich landscape. However, the occurrence of rickets-related pathologies on two dogs from the site might equally allude to local, intensive breeding in kennels (*ibid.*).

Crop husbandry

Dr John Summers and Antony RR Mustchin

Although conditions at the former Smoke House Inn are unlikely to have been conducive to cereal cultivation, the fen edge setting of the site made a range of fertile soils available for exploitation. This is reflected in the occasional large deposits of carbonised cereal remains recovered and the investment in large structures for the processing and storage of crops seen at the Maltings (Bales 2004). Non-cereal taxa from the archaeobotanical assemblage are generally indicative of cultivation on well-

manured, fertile soil, most likely those set away from the immediate fen-edge, where water tables were lower and the threat of seasonal flooding less pronounced. The presence of certain non-cereal taxa within cereal-rich samples, e.g. rushes and sedges, does however hint at some cultivation of wetter, more marginal land. Archaeobotanical data from Periods I and III at the former Smoke House Inn were too few to allow detailed analysis. Cereal pollen was recorded in monoliths from peat filled hollows excavated on the Maltings site (Wiltshire 2004), which demonstrate local cereal cultivation immediately prior to the Romano-British period at Beck Row.

Throughout the Romano-British period the local arable economy was dominated by spelt wheat and, to a lesser extent, hulled six-row barley. It appears that these cultivars were treated separately, constituting individual monocrops (see Summers this report – *Charred plant macrofossils and charcoal*), with the latter perhaps being raised as a fodder crop for livestock. Oat and rye, recorded in small numbers only, may also have constituted fodder crops, possibly accounting for their relative scarcity. Rye was only present from the second half of the 3rd century but once established in the region, could have been a valuable resource for extracting good yields from thin, free-draining Breckland soils. The relative importance of spelt wheat and barley did not significantly alter throughout Period II but there may have been some improvements in the spelt crop over time, as indicated by increased caryopsis size from the late 2nd century onwards. A similar dominance of wheat and barley was noted at the neighbouring Maltings (Fryer 2004, 53), whilst spelt wheat was also the principal Romano-British cultivar identified in samples from West Row Primary School (Fosberry 2010, 22), c. 2.4km to the south-west. Spelt wheat was the principal cereal crop across Roman Britain (Greig 1991, 309), a pattern also attested during the pre-Roman Iron Age in the East of England (e.g. Upex 2008, 156). Further afield, a dominance of spelt wheat is also reported from Scotland Farm to the west of Cambridge (Albion Archaeology 2008, 14), at Wavendon Gate, Milton Keynes (Williams *et al.* 1996, 87) and at Beddington Villa, Surrey (de Moulins 2005), attesting to the widespread preference for this economic mainstay.

Non-cereal crops were also present in the archaeobotanical assemblage, including pea (*Pisum sativum*) and flax (*Linum usitatissimum*). These are likely to have performed a role in local economies, providing a high protein supplement to a presumably cereal-rich diet (pea) and the raw material for linen or linseed oil production (flax).

Large concentrations of chaff recovered from Roman Sub-Phases 2 and 5 at the former Smoke House Inn were indicative of the bulk processing of cereals. Samples rich in glume bases, large seeded weeds and some cereal grains from both the present site and the Maltings (Fryer 2004) are characteristic of final de-husking and sieving of the cereal product. It appears that the full cleaning and bulk storage of spelt wheat was occurring either on or close to the current site, perhaps with a view to producing surpluses for external trade. A fully cleaned product would have represented the most efficient use of space for the storage or transport of large volumes of grain. It is possible that crop processing activities shifted towards the south of the site as conditions became wetter and less manageable closer to the fen edge. It is likely that the Wash Fenlands and their margins, at least in part, formed an important resource base, supplying commodities such as meat, salt and grain to

the Roman army and general populace (e.g. Galloway 1983, 26). Salway (1981, 359-60) goes one step further suggesting that northern East Anglia comprised an important exporter of grain from the middle Romano-British period onwards, via the Wash to the Rhineland. Such interpretations may be seen as supporting the traditional view of the Fenlands as an imperial estate (e.g. Salzman 1938, 3).

The deliberate malting of grain was also evidenced in several samples from the former Smoke House Inn and may have comprised a means of adding value to an exportable commodity (e.g. van der Veen and O'Connor 1998, 134). The 2nd to mid-3rd century maltings to the north (Bales 2004), in addition to modest evidence for the malting of grain on the current site during the mid-3rd to late 4th century, lends credence to this interpretation. It is highly likely that similar features were in use in other parts of the local landscape. The by-products of cereal processing were not wasted at Beck Row and de-husking debris was used to fuel the corn-drier/ malt kiln at the maltings site (Fryer 2004). Other similar deposits from the present site also point to the deliberate burning of such material, although not connected to a specific kiln feature.

Although the bulk of environmental material from the current site constitutes only 'scattered' remains, the ubiquity and character of the cereal component points towards their intensive cultivation, use and storage. Post-built Structures 4-7, spanning the mid-3rd to late 4th centuries, certainly appear to have been store houses or 'granaries', albeit of a late Iron Age/ native type. It cannot be stated with any certainty however whether these housed seed grain, grain for human consumption/ export or fodder crops for livestock. The latter would have been in important consideration given the abundance of domestic species at the site, many of which may have required stored foodstuffs for successful overwintering. Grain weevil (*Sitophilus granarius*) activity is also evidenced, although generally pests do not appear to have been a large problem.

In summary, environmental samples contribute to the broader picture of the former Smoke House Inn as part of a rich, productive and mixed agricultural landscape, possibly centred on a nearby villa at either Thistley Green (SHER MNL 064) or Scott Avenue/ Hanmer Avenue (SHER MNL 487) and almost certainly involved in the intensive production, processing, and export of grain. The numerous Horningsea storage jars encountered at the site may have been used in the local/ regional transport of grain (Peachey this report – *The prehistoric and Roman pottery*). It has been proposed that the Wash Fenlands were an important source of grain for Roman military forces in northern Britain (Galloway 1983, 26).

Wild resources

Wild fauna

Wild fauna do not make up a significant component of the Period II animal bone assemblage and they do not appear to have been economically important. However, deer (red and roe) appear to have been utilised for their hides, meat and antler, with some naturally shed antlers having been collected for working (Curl and Cussans this report – *The animal bone*). Hare appears to have also been occasionally

consumed and was probably also a source of fur (*ibid.*). A few wild bird species were also encountered including swan and whimbrel (*ibid.*).

Gathered flora

A wide variety of wild plant species were present in environmental samples from Period II, largely representing arable weeds, e.g. black bindweed, fat hen and opium poppy (Summers this report – *Carbonised plant macrofossils and charcoal*). The latter may however comprise a deliberately gathered resource (*ibid.*). Possible non-cereal food plants recovered from Romano-British contexts included wild strawberry and possible black mustard (*ibid.*). These were only present in small numbers however and it is impossible to distinguish between deliberately and accidentally gathered taxa. Hazel nut shell was also recovered and, although possibly representing a human dietary component, was again scarce (*ibid.*). As such, the contribution such plants made to the local Romano-British economy is not quantifiable.

Charcoal

Sampling of Romano-British contexts yielded a charcoal assemblage dominated by oak with the representation of other taxa being more limited (Summers this report, *Carbonised plant macrofossils and charcoal*). A similar dominance of oak has been noted at other Romano-British sites including Westhawk farm, Kent (Challinor 2008) and Childerley Gate to the west of Cambridge (Gale 2008, appendix 16). The exception to this rule at the former Smoke House Inn was the 4th century cremation in Pit F1068 (Cremation 1; below). Charcoal from this feature, representing pyre fuel, suggests the deliberate selection of wood of the Maloideae subfamily, perhaps alluding to some 'special' significance attached to the cremation ritual. In contrast however, a recent, widespread study of Roman cremation rituals in northern Gaul reported an overrepresentation of oak in comparison with 'domestic' contexts (Deforce and Haneca 2012, 1338). Like the Beck Row example however, this study noted a limited range of taxa within the cremations examined, thought to reflect a 'functional' selection of fuelwood (*ibid.*). Palynological samples from the Maltings (Wiltshire 2004) suggest that a range of species were available in the immediate Beck Row landscape for use by the Romano-British population, thus reaffirming the possible significance of the homogeneous charcoal assemblage associated with Cremation 1. It should be noted however that, like oak, Maloideae wood is dense and slow burning and thus its dominance in the sample from F1068 may simply represent a functional choice in respect to the cremation process.

The predominance of oak as a fuelwood may have been a by-product of the procurement of the bark of this species for use in the tanning industry (cf. Upex 2008, 169, after Summers this report – *The carbonised plant macrofossils and charcoal*). Skinning evidence was abundant within the Period II faunal assemblage from the site (Curl and Cussans this report – *The animal bone*). Salt, a readily available commodity from the Fenland would have also been integral to this process.

Heather charcoal was also identified from the Former Smoke House Inn and was periodically abundant in environmental samples (Summers this report – *Carbonised plant macrofossils and charcoal*). It appeared supplementary to oak and other mixed

fuelwood species in the fills of 4th century Kiln/ Oven F3605 (*ibid.*), for instance, and may have represented an important natural fuel source. Heather would have been readily available on the nearby Breckland soils. Similar evidence was encountered at Brandon Road, Thetford where heather and, possibly, bracken were used as fuels during the Romano-British period (Fryer 2010, 105), whilst heather charcoal was also identified in Romano-British samples from West Stow, Suffolk (Murphy 1985).

Industrial and craft-level activities

Metal production and processing

The current site is well situated to exploit naturally occurring ironstone from the fen skirtlands (Newton this report – *The slag*). Indeed, all of the slag recovered, the vast majority of which is from Period II contexts, is the by-product of iron smelting and smithing (Cooper this report – *The small finds*; Newton this report – *The slag*). However, most of this material is broken from larger pieces, suggesting redeposited material (Newton this report – *The slag*) from secondary or even tertiary deposits. As such, the assemblage most likely represents a gradual accumulation or deposition of material (from elsewhere) over a prolonged period of time (*ibid.*). Small quantities of iron slag were also encountered by an excavation on land to the immediate north-east (MNL 598; Craven 2011, 96). A few fragments of smithing hearth bottom were identified from the current site although are unlikely to represent more than a base-level of such activity throughout the Romano-British period, while the identification of a possible furnace tuyere from Roman Sub-Phase 6 remains tentative at best (Newton this report – *The slag*).

Lead scraps and droplet waste (totalling 370g; including unstratified material) was also recovered (Cooper this report – *The small finds*). The stratified Phase II material most probably relates to construction or repair work (*ibid.*).

Animal by-products

Dr Julia EM Cussans and Antony RR Mustchin

Industrial and craft activities evidenced from the bone assemblage fall into four categories; skinning for hides, horn working, antler working and worked bone. The only real evidence of bone working came from a single swan bone that had been trimmed and polished and it is suggested may have been part of an unfinished example of a musical instrument or handle. Cattle horn working evidence was seen throughout Period II but was most frequent in Roman Sub-Phase 5; this was also the only sub-phase to show any evidence of working of sheep horn cores. Evidence of antler working was also seen throughout Period II with a number of modified antler pieces present. There is evidence of shed antler being collected specifically for working in addition to deer being hunted.

Finally, evidence for skinning was present on a number of species. Evidence of cattle and sheep/ goat skinning was present throughout Period II in addition to a variety of other butchery in association with food procurement. The majority of butchery marks on equid bones are small knife cuts on the metapodials, showing that the majority of butchery carried out on these animals was for the procurement of skins. The same can be said for the canids where the butchery almost exclusively

relates to skinning with many mandibles showing knife marks. Interestingly these were mostly found on the medium and large dogs; the skins of the smaller lap-dogs apparently not being desirable, probably due to their small size.

Economic synthesis

The Romano-British economy of the site is more complex than would perhaps be expected for a rural setting of this type. In addition to a mixed agricultural economy based primarily on the breeding and raising of cattle and sheep for their meat and various by-products (including traction in the case of the former) and the processing of cereals for fodder and export (see below), the site yielded a huge and diverse pottery assemblage. The frequency of fine wares, including a large number of samian cups is more typical of major urban assemblages (Willis 2005, after Peachey this report – *The Prehistoric and Roman pottery*), although might tentatively be linked to the presence of the Roman ‘maltings’ to the north (see Bales 2004). Such foreign imports, with examples dating to the late 1st/ early 2nd centuries AD, also hint at an early uptake of a Roman ‘cultural package’ by the area’s indigenous population. This is at odds to the structural evidence from the site which, although ephemeral, retained a largely late prehistoric character throughout Period II. The site also sits equidistant between the centres of the Wattisfield and Horningsea pottery industries and may have served as a centre for pottery distribution, although the lack of obvious transport links in the immediate landscape might suggest otherwise. However, good evidence for the latter stages of grain processing and the large quantity of Horningsea storage jars from the site strongly suggest an established Romano-British trade in the former and, consequently, a high level of local infrastructure.

The site also yielded copper alloy brooches, other items of personal adornment and a modest coin assemblage, including an early Roman purse group or hoard. Although few, these finds suggest a high level of material prosperity within the local population. Together with the imported fine wares, such finds might suggest the former Smoke House Inn and its neighbouring sites formed part of an ‘estate’ linked to a rich settlement or local villa. The Thistley Green villa (SHER MNL 064) or possible high-status building at Scott Avenue/ Hanmer Avenue (SHER MNL 487) are possible candidates.

The remaining economic evidence is more in keeping with a rural Romano-British site practicing a mixed agricultural regime. The animal bone/ horn assemblage attests to working, skinning (including possible tanning) and traction. Dairying is also likely to have occurred, while the small-scale hunting of wild fauna is also suggested. Certainly deer (red and roe) were hunted for their meat and secondary products, perhaps opportunistically – based on the small numbers represented – or by a governing ‘elite’. The gathering of wild plants, including possible foodstuffs, was also identified in the environmental assemblage and oak was the dominant fuelwood (in keeping with evidence from other regional sites). Evidence for local metal production and working was also identified although this is unlikely to have occurred within the confines of the current site.

Funerary and ritual evidence

Funerary evidence

The Phase II funerary evidence comprised the inhumation burial of a neonate (SK1), a small number of isolated unburnt remains (including a juvenile burial (SK8) and adult burial SK9) and two cremations (Curl this report – *The human remains*). The latter comprise a 4th century example from Roman Sub-Phase 6 and an unstratified cremation. Both cremations were urned; the 4th century example was found in association with a single Wattisfield reduced ware shouldered jar. No other grave goods were present in any sub-phase.

SKs 1, 8 and 9 were located within the northern site quadrant and were positioned close to contemporary linear features. Grave F2731 (SK8) was located within the confines of Enclosure 8 (Roman Sub-Phase 2 Enclosure System 3) and close to the south-western terminus of Gully F2592 (Roman Sub-Phase 2 Enclosure System 2), whilst juvenile burial SK8 and neonate burial SK1 displayed similar relationships to nearby boundaries. Bar SK1, located c. 4.5m to the west of Structure 9, no funerary feature was found close to any structural remains. Cremation 1 (F1068) was found close to a number of heavily truncated, contemporary features in the south-western corner of the western quadrant. This area had been heavily disturbed by later activity and it did not prove possible to associate Pit F1068 with any coherent landscape 'feature'. Ditch F1095 was recorded a short distance to the south-west however and it is possible that Cremation 1 was interred close to the edge of an enclosure or similar. Although inhumation had superseded cremation as the dominant funerary rite throughout much of Roman Britain by the late 3rd century, 4th century examples are known, particularly from the east of England (Philpott 1991, 50). The dating of Cremation 1 remains tentative however.

A number of similar funerary contexts are known from the immediate Beck Row area. Groundworks at 68 The Street, c. 130m to the south-east of the current site, revealed one or more Roman inhumations in association with two bronze finger rings and a glass necklace (SHER MNL 243). Iron Age and Romano-British inhumations were also recorded at (SHER) MNL 532, c. 1km to the west-south-west (Brooks/Tester in preparation). Further afield, the articulated remains of three Romano-British infants (within two grave cuts or 'scoops') were found at the site of Kilverstone, Norfolk (Lucy *et al.* 2006, 12). Two of these had died either during or shortly after birth whilst the third was aged nine months \pm three months at time of death (*ibid.*). Evidence of Roman cremations from the immediate area is a little more vague, however, with a possible prehistoric cremation deposit reported to the rear of the former Smoke House Inn (Dodwell 2010, 42) along with a second (unexcavated) cremation from the PIK Housing site (Craven 2006, 17), a short distance to the west. The latter was truncated by a Romano-British ditch (*ibid.*).

The pattern of dispersed burial identified at the current site and echoed in the surrounding landscape is in stark contrast to larger cemeteries also known from the region, e.g. the late 2nd to early 4th century cemetery at the Babraham Institute, Cambridgeshire (Timberlake 2007, 10, 13, 34), the late 4th century cemetery at Melford Meadows, Thetford (Mudd 2002, 29-31) and the Romano-British cemetery at Billingford, Norfolk (Wallis 2011, 29-30), but is not unusual within a rural Romano-

British context. Roman law forbade the interment of human remains within settlements (Upex 2008, 234) although this legislation appears to have been largely disregarded towards the latter part of the Roman occupation of Britain (*ibid.*). Infant burials are however more common from domestic settings (*cf.* Salway 1981, 695; after Upex 2008, 235). Philpott (1991, 98) argues that on rural sites expediency rather than ritual or ceremony would have dictated the disposal of the dead (after Lucy *et al.* 2006, 113). This apparent lack of concern for the social niceties may account for the absence of grave goods at the current site, with the exception of the urned cremations. Nonetheless, the grave goods recovered from 68 The Street attest to a degree of material prosperity within the local Romano-British population, also reflected by the small finds, pottery and coins from the current site, perhaps further indicating the existence of a villa or high-status farm somewhere in the immediate fen edge landscape (see above). Regardless of status, however, the presence of funerary deposits strongly suggests the existence of nearby dwellings, most probably beyond the excavated area to the south.

Ritual evidence

The Period II animal bone assemblage includes a range of burials and a deposit of some six domestic fowl, possibly relating to 'ritual' activity (Curl and Cussans this report – *The animal bone*). A ram's skull from Roman Sub-Phase 6 Gully F4042 might also have had a decorative or ritual function (*ibid.*). This feature yielded little else of note however. Sheep/ goat skulls and an ovicaprid limb were also found in Roman Sub-Phase 5 Ditch F1139 (=2212=2291), and might also be 'special' deposits of some kind, perhaps offerings to Mercury in the later Romano-British period (*ibid.*). However, F1139 (=2212=2291) contained a large and mixed finds assemblage and it is equally likely that the bone from this ditch comprises waste material. Skulls at least have a comparatively low economic utility (Lyman 1999, 226, fig. 7.1, after Binford 1978), certainly as food items. The skulls of several cattle from Period II displayed evidence of horn removal, and again appear to relate to the disposal of carcass processing/ butchery waste. The complete animal burials (ABGs) from Roman Sub-Phase 6 (including the fowl discussed above) displayed no signs of canid gnawing, which might be expected if they were natural deaths in the field (exposed to scavenging), indicating that these were culled and rapidly buried animals, possibly with a religious or 'special' significance (*ibid.*). Rapid burial of diseased animals would have been desirable however (*ibid.*). Nonetheless, evidence of economic utilisation prior to burial was seen on some of the Roman Sub-Phase 6 ABGs.

6.4 Period III

The post-Roman period at the former Smoke House Inn was chiefly evidenced by a series of disarticulated enclosure or plot boundaries broadly parallel to boundaries depicted on the 1882 and 1904 Ordnance Survey maps. A single element of c. 17th to 18th century red-brick walling was also identified. In general, activity during this period, prior to the 20th century construction of the Smoke House Inn, appeared domestic and agricultural in nature. The early cartographic sources depict various structures occupying the southern area of the site and fronting The Street. Six animal burials attest to the raising of livestock, including cattle and pigs, in the immediate vicinity. Following the Drainage Act of 1759, the Settled Fenland to the

north of Beck Row was subject to piecemeal enclosure with an economy including the remnants of small-scale livestock production (www.suffolklandscape.org.uk).

6.5 Conclusions

The major period of settlement activity at the former Smoke House Inn was between the late 1st/ early 2nd and late 4th centuries+ AD. The forerunning pre-Roman and subsequent post-Roman periods were far less represented. Prehistoric evidence indicated little more than transient, possibly seasonal exploitation of this part of the fen-edge, although the sparse Iron Age features probably represented continuations of the enclosed landscape identified at the neighbouring Maltings site (Bales 2004), albeit much truncated. The post-Roman field/ plot boundaries broadly agreed with the orientation of boundaries depicted on early cartographic sources. It appears that the site comprised rough grazing and arable subject to pre-18th century enclosure.

The Romano-British site comprised a complex, enclosed landscape, similar to patterns of continuous land enclosure identified across southern and eastern England (Taylor 2007, 113). The features forming the Period II enclosures appeared short-lived – probably as a result of rapid, natural infilling by the local sandy soils – and had been continuously added to and altered throughout the Roman occupation, resulting in a stratigraphically complex sequence. The size and shape of enclosures also altered over time, developing from a sub-rounded format in Roman Sub-Phase 1 to rectilinear forms which culminated in the ‘ladder’ system of Roman Sub-Phase 5. This dramatic reordering of the local landscape was not linked to concurrent shifts in the Roman agricultural economy however, which was more-or-less uniform throughout, being dominated by the rearing of cattle and, to a lesser extent, sheep/ goats and pigs. A grazing landscape was also favoured by the environmental evidence although parts of the later Period II site may have been prone to inundation, possibly related to rising Fenland water levels at this time. Some of the identified Romano-British trackways/ droveways, particularly in Roman Sub-Phase 5, appeared to lead towards the historic fen edge and may have been used for the movement and watering of livestock. No wells were identified.

The Roman diaspora was less reflected in the Period II structural evidence which, bar Structure 3 (the ephemeral remains of a possible aisled building), was outwardly pre-Roman in character. This was thought to perhaps indicate a locally slow process of Romanisation, although this disagrees strongly with the artefactual evidence. The importation of fine wares from the early 2nd century AD, including a disproportionately large number of samian cups, and the occurrence of other high-status items and coins (including the early Roman purse group or hoard) suggest a rapid adoption by the local population of at least certain aspects of a Romanised socio-cultural and economic ‘package’. The large and diverse pottery assemblage, including fine and more utilitarian wares, might suggest that part of the site’s economy was based on the trade and distribution of this material. Although lacking clear communication routes, the site sits equidistant between the Wattisfield and Horningsea pottery industries and may have served as a centre for pottery distribution. Also, the large number of Horningsea storage jars found may have had a function in the storage and large-scale trade of grain, the processing of which is well attested in the Period II environmental assemblage.

Together with surrounding sites, including the possible 'maltings' (MNL 502) to the north, the former Smoke House Inn appears to have constituted part of a rich and complex rural Romano-British landscape encompassing a surprisingly broad economic base. The level of infrastructure and degree of economic wealth inferred by the archaeology and the finds and ecofactual assemblages suggests that the site may have been part of a villa estate, possibly centred on recorded structures at either Thistley Green (SHER MNL 064) or Scott Avenue/ Hanmer Avenue (SHER MNL 487). This settlement pattern would certainly reflect that interpreted along the neighbouring Norfolk fen edge, where villas like that at Feltwell (Gurney 1986a, 1, 45-6), are thought to have sat within large, surrounding estates.

ACKNOWLEDGEMENTS

Archaeological Solutions Ltd (AS) would like to thank Persimmon plc. for funding the project. Thanks also go to Colin Pendleton (Suffolk Historic Environment Record) and John Craven (Suffolk County Council Archaeological Service).

AS is especially grateful for the input and advice of Jude Plouviez (Archaeological Officer, Suffolk County Council).

Dr John Summers is very grateful to Dr Ruth Pelling who provided useful comments and guidance on an earlier draft of the *Charred plant macrofossils and charcoal* report.

The Project Officer for the excavation was Walter McCall. The fieldwork project was managed by Claire Halpin (Director, AS). The post-excavation project was managed in turn by Walter McCall, Tim Schofield and Antony Mustchin. Illustrations are by Rosanna Price, Charlotte Davies and Kathren Henry.

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APPENDIX 1 – OASIS DATA COLLECTION FORM

OASIS DATA COLLECTION FORM: England

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

Printable version

OASIS ID: archaeol7-190498

Project details

Project name	Former Smoke House Inn, Beck Row, Mildenhall, Suffolk
Short description of the project	Archaeological Solutions Ltd (AS) carried out an archaeological excavation on land at the former Smoke House Inn, Beck Row, Mildenhall, Suffolk (NGR TL 689 778). Planning consent for the excavation was granted by Forest Heath District Council (application F/2006/0254).
Project dates	Start: 19-07-2010 End: 08-08-2011
Previous/future work	No / Not known
Any associated project reference codes	P3930 - Contracting Unit No.
Any associated project reference codes	MNL 638 - Sitecode
Type of project	Research project
Site status	None
Current Land use	Other 15 - Other
Monument type	STRUCTURAL EVIDENCE Early Prehistoric
Monument type	BURIALS Roman
Monument type	KILN/OVEN Roman
Significant Finds	POTTERY Early Prehistoric
Significant Finds	FLINT Early Prehistoric
Significant Finds	WORKED BONE Early Prehistoric
Significant Finds	POTTERY Roman
Significant Finds	VESSEL GLASS Roman
Significant Finds	WORKED BONE Roman
Significant Finds	COINS Roman
Significant Finds	SLAG Roman
Significant Finds	CU ALLOY OBJECTS Roman
Investigation type	"Full excavation"
Prompt	Research

Project location

Country	England
Site location	SUFFOLK FOREST HEATH BECK ROW, HOLYWELL ROW AND KENNY HILL Former Smoke House Inn, Beck Row, Mildenhall, Suffolk
Study area	3.70 Hectares
Site coordinates	TL 689 778 52.371741121 0.481328051838 52 22 18 N 000 28 52 E Point

Project creators

Name of Organisation	Archaeological Solutions Ltd
Project brief originator	Suffolk County Council Archaeological Service Conservation Team
Project design originator	Jon Murray
Project director/manager	Jon Murray
Project supervisor	Archaeological Solutions Ltd

Project archives

Physical Archive recipient	Suffolk County Archaeological Store
Physical Contents	"Animal Bones","Ceramics","Glass","Worked bone","Worked stone/lithics"
Digital Archive recipient	Suffolk County Archaeological Store
Digital Contents	"Survey"
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Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Former Smoke House Inn, Beck Row, Mildenhall, Suffolk
Author(s)/Editor(s)	Mustchin, A
Other bibliographic details	Archaeological Solutions Report No. 4514
Date	2014
Issuer or publisher	Archaeological Solutions Ltd
Place of issue or publication	Bury St Edmunds
Entered by	Sarah Powell (Info@ascontracts.co.uk)
Entered on	18 September 2014

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**FORMER SMOKE HOUSE INN, BECK ROW,
MILDENHALL, SUFFOLK**

RESEARCH ARCHIVE REPORT

VOLUME II – PLATES & FIGURES

Authors: Antony RR Mustchin MSc (Report) Peter Thompson MA (Preparative Research)	
Illustrations: Rosanna Price BSc, Charlotte Davies MPhil and Kathren Henry	
NGR: TL 689 778	Report No: 4514
District: Forest Heath	Site Code: MNL 638
Approved: C. Halpin	Project No: 3930
Signed:	Date: 18 February 2014

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ARCHAEOLOGICAL SOLUTIONS LTD

**PI House, Rear of 23 Clifton House, Shefford,
Bedfordshire, SG17 5AF**

**Unit 6, Brunel Business Court, Eastern Way,
Bury St Edmunds IP32 7AJ
Tel 01284 765210**

**e-mail info@ascontracts.co.uk
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PLATES



Plate 1: General excavation shot



Plate 2: F2731 (SK8) looking SE



Plate 3: F3289 (SK9) looking NE



Plate 4: Cremation 1 (part-excavated) looking SE



Plate 5: F1600 (SK1) looking E



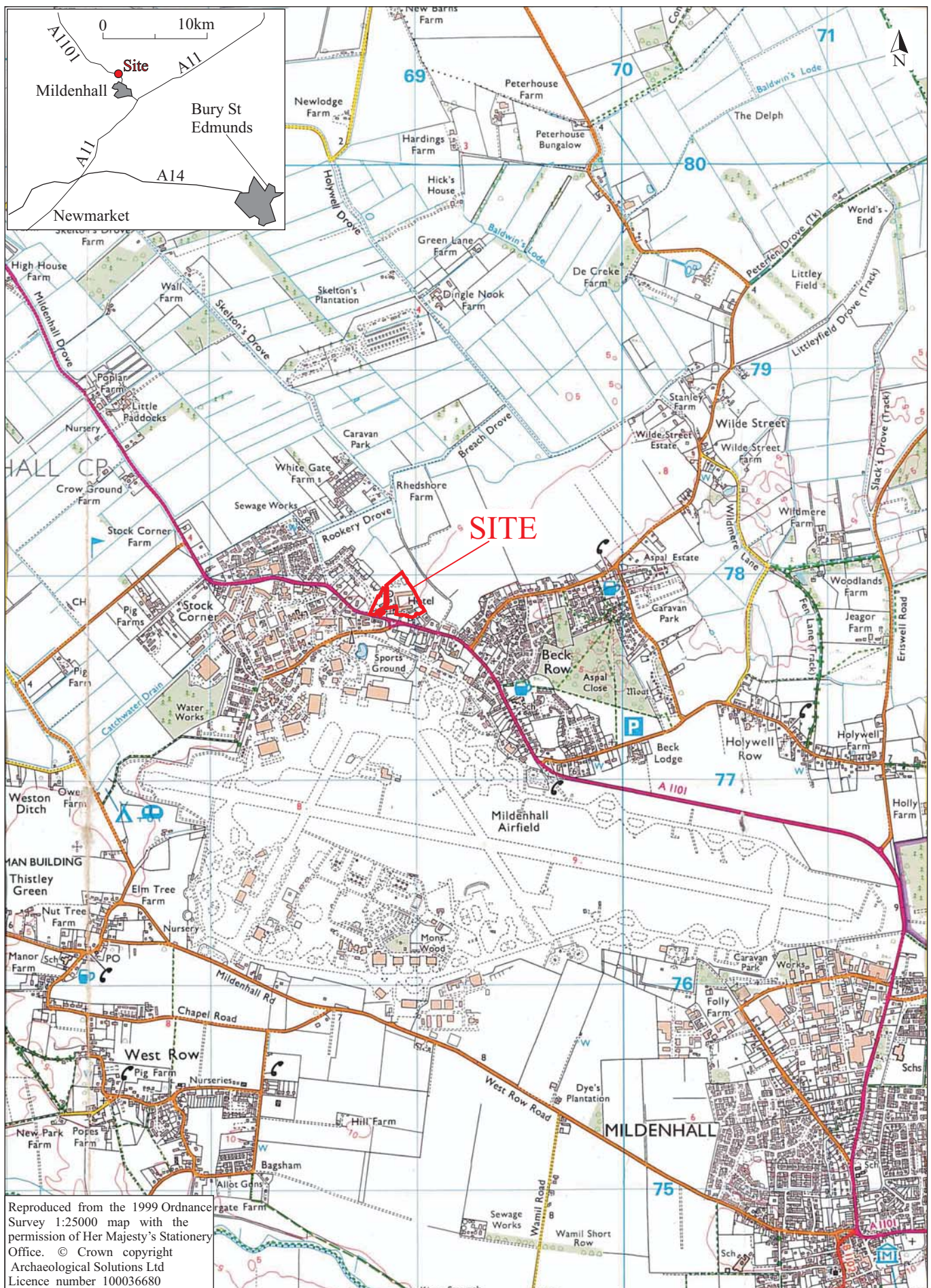
Plate 6: F2344 (SK3) looking N



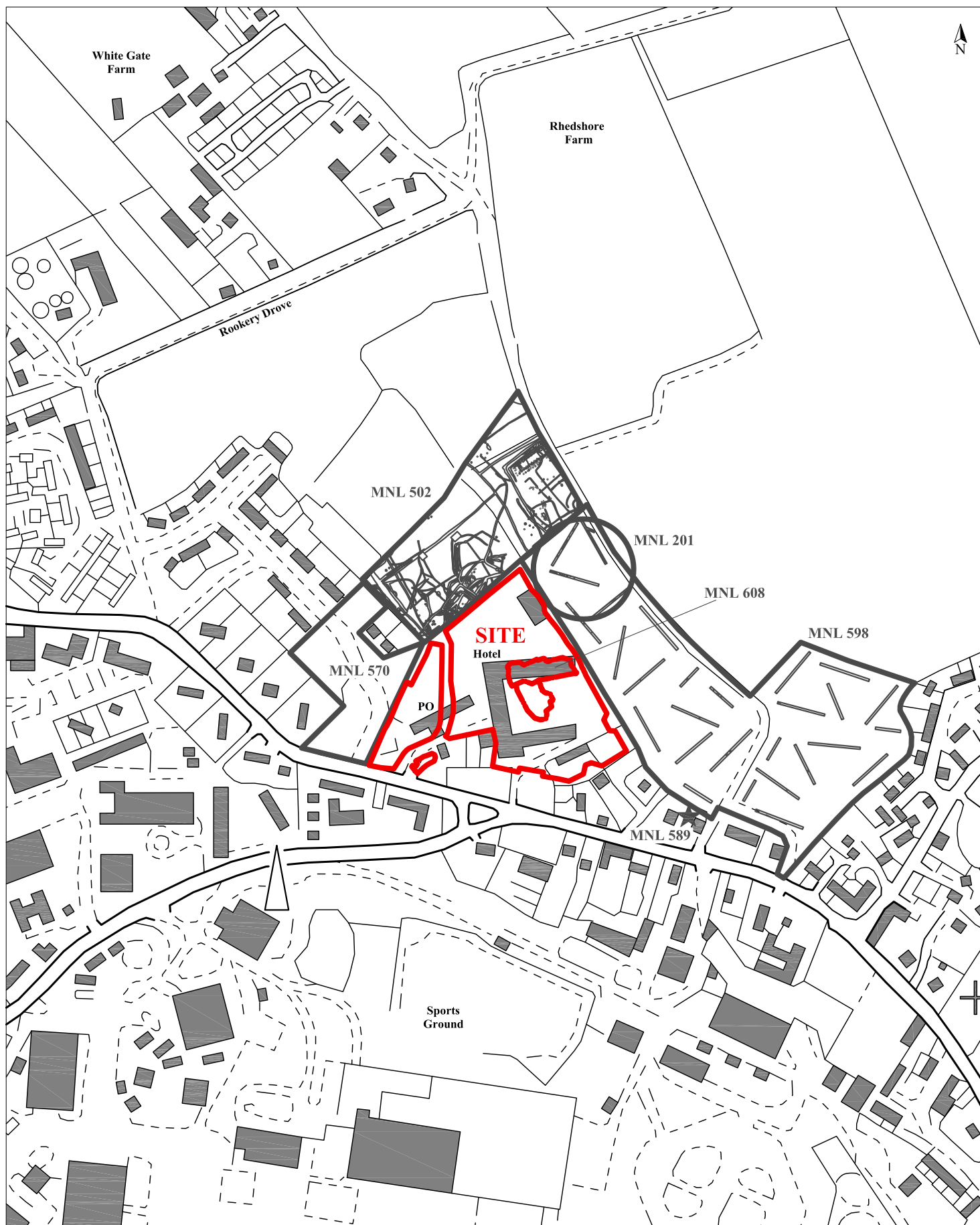
Plate 7: Unnumbered porcine ABG in F1175, looking S



Plate 8: Unnumbered lamb ABG in F1219, looking NW



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Fig. 1 Site location plan
Scale 1:25,000 at A4

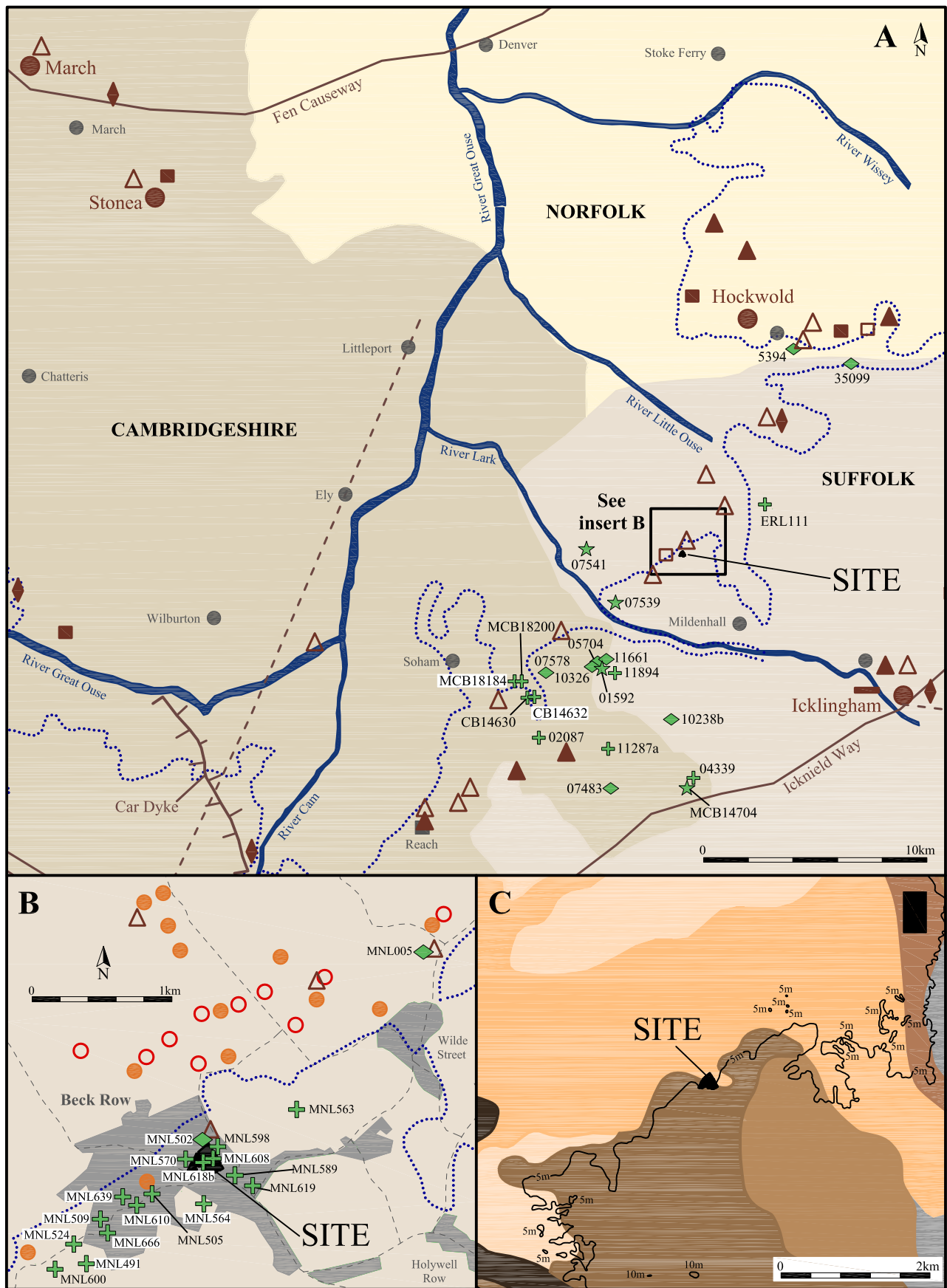


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Fig. 2 Detailed site location plan
 Scale 1:5,000 at A4



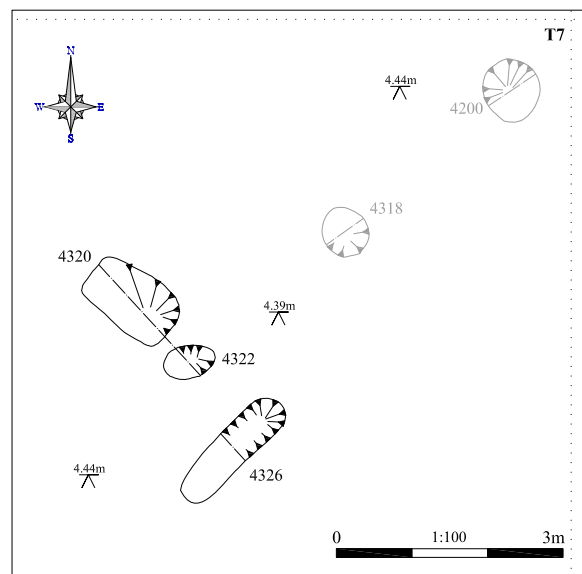
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Fig. 3 All features plan
Scale 1:800 at A3



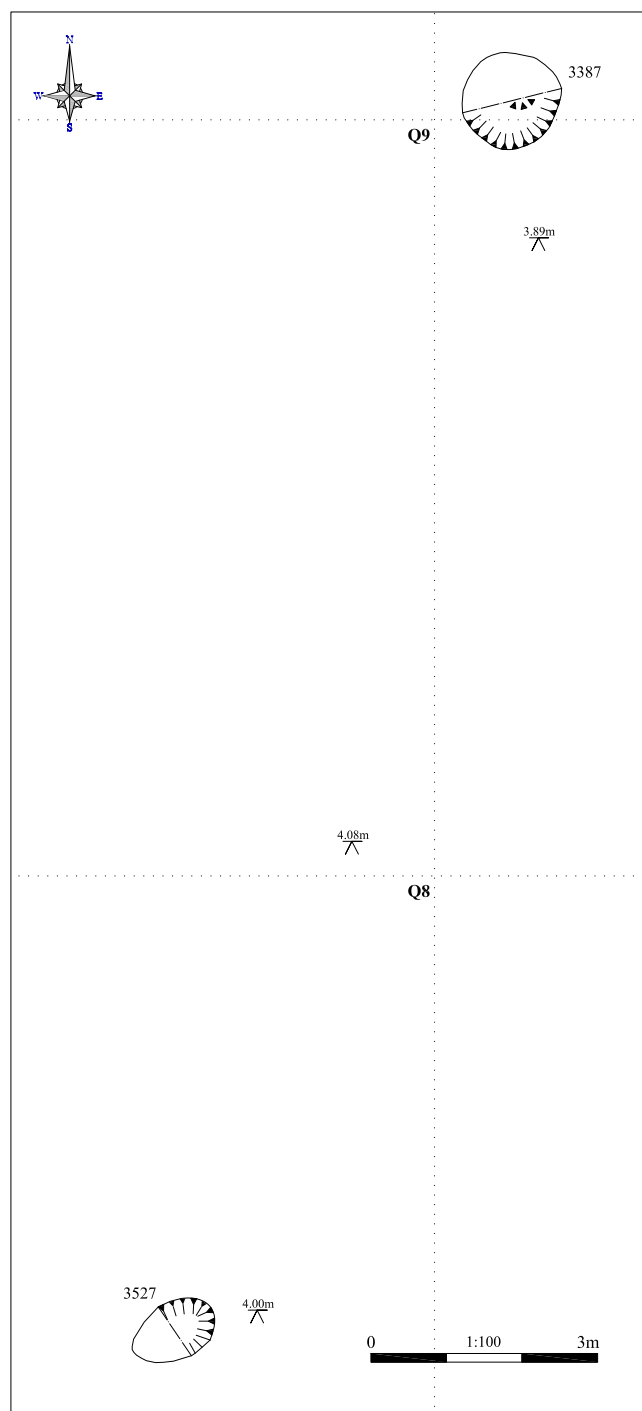
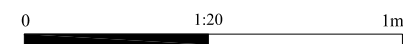
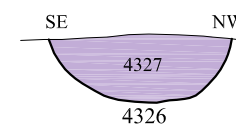
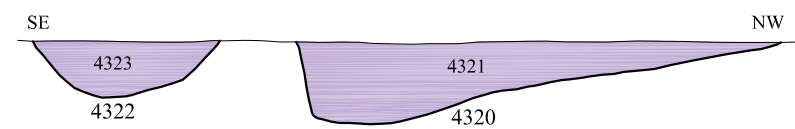
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Fig. 4 Archaeological and landscape context
 Scale 1:250,000 1:75,000 and 1:40,000 at A4



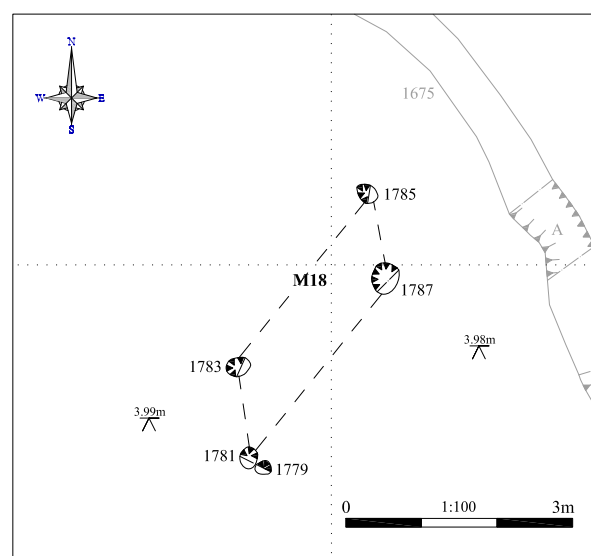
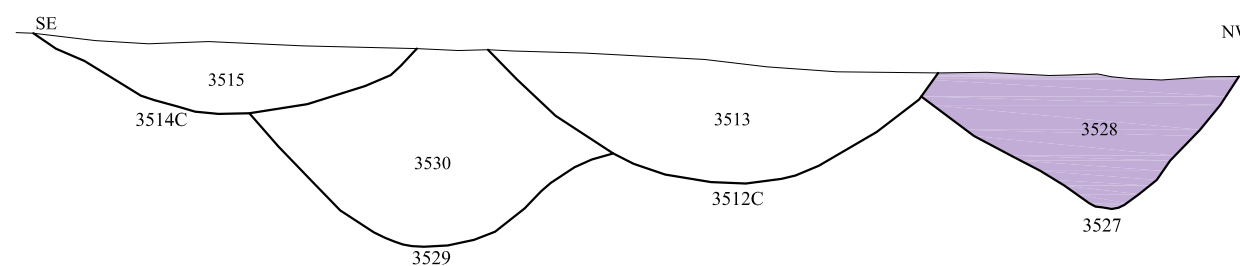
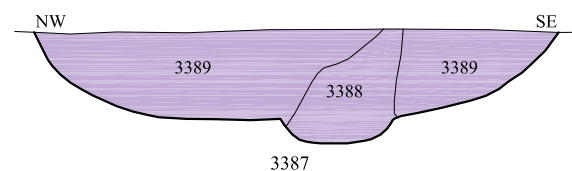
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Fig. 5 Period I - Prehistoric
Scale 1:800 at A3



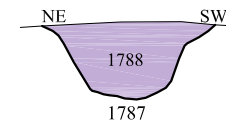
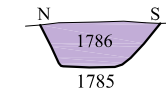
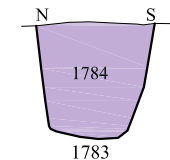
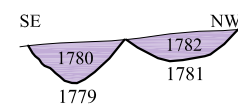
Possible Bronze Age pit cluster

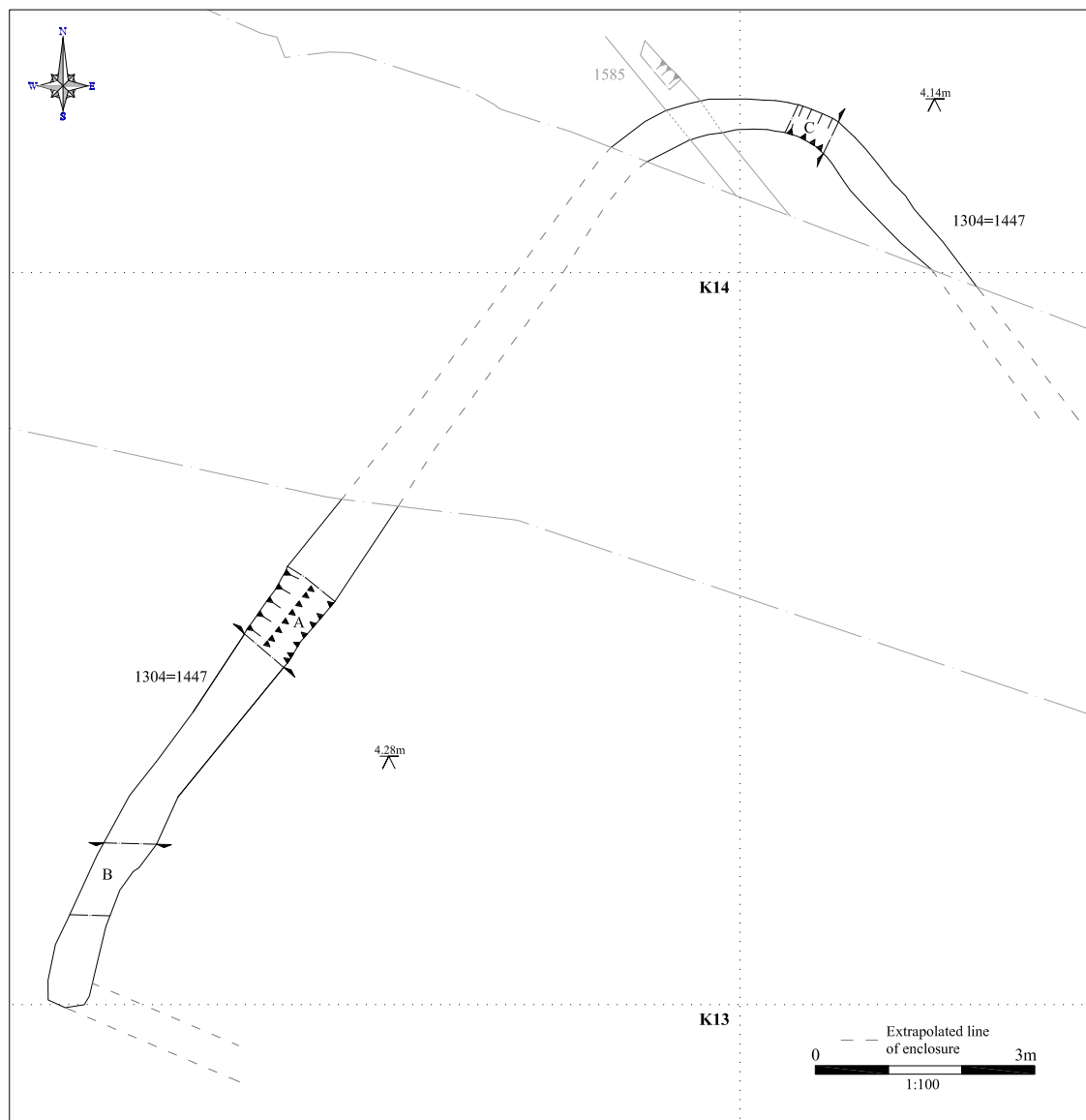


Possible Bronze Age/early Iron Age pit pair

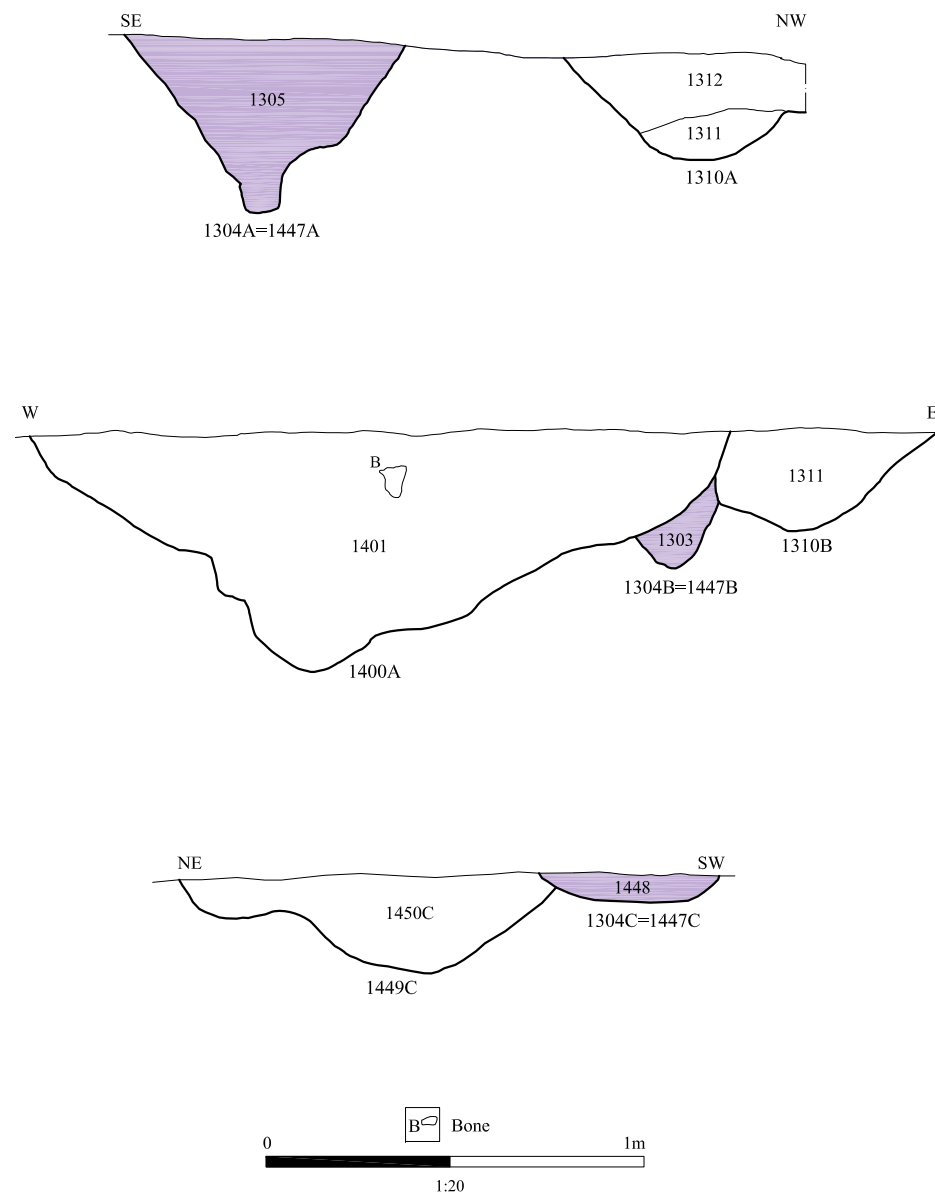


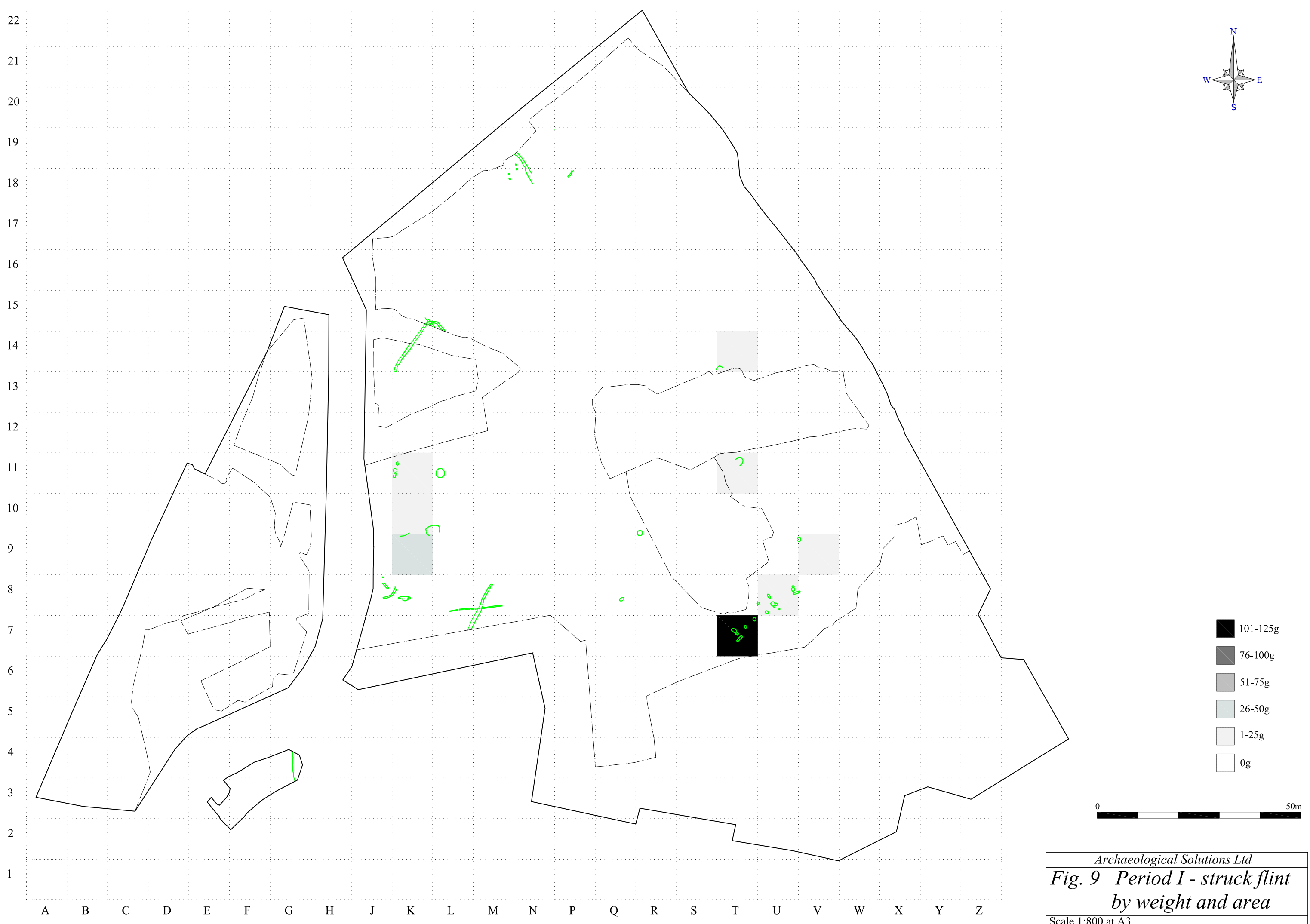
Possible four-post structure (Structure 2)

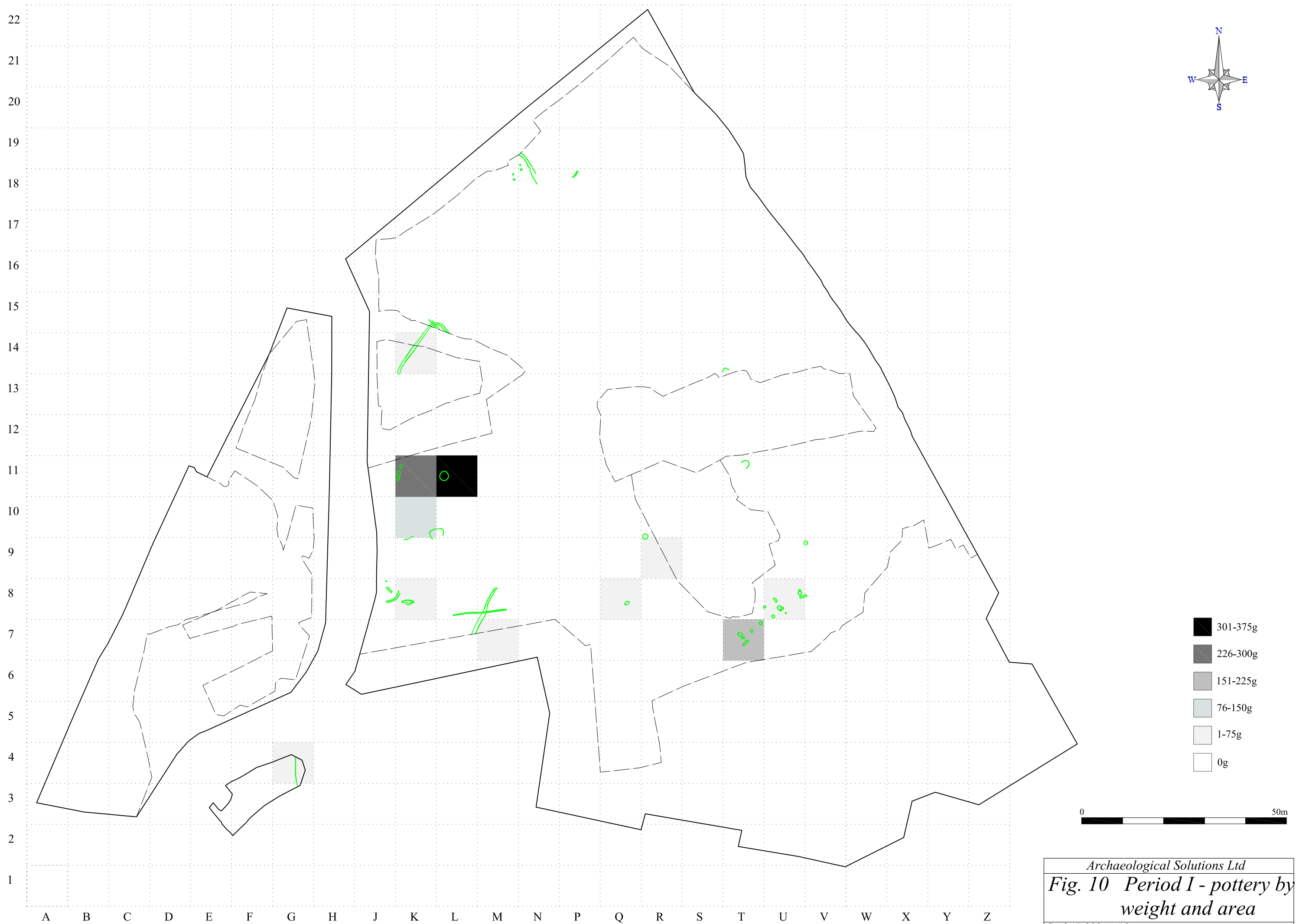




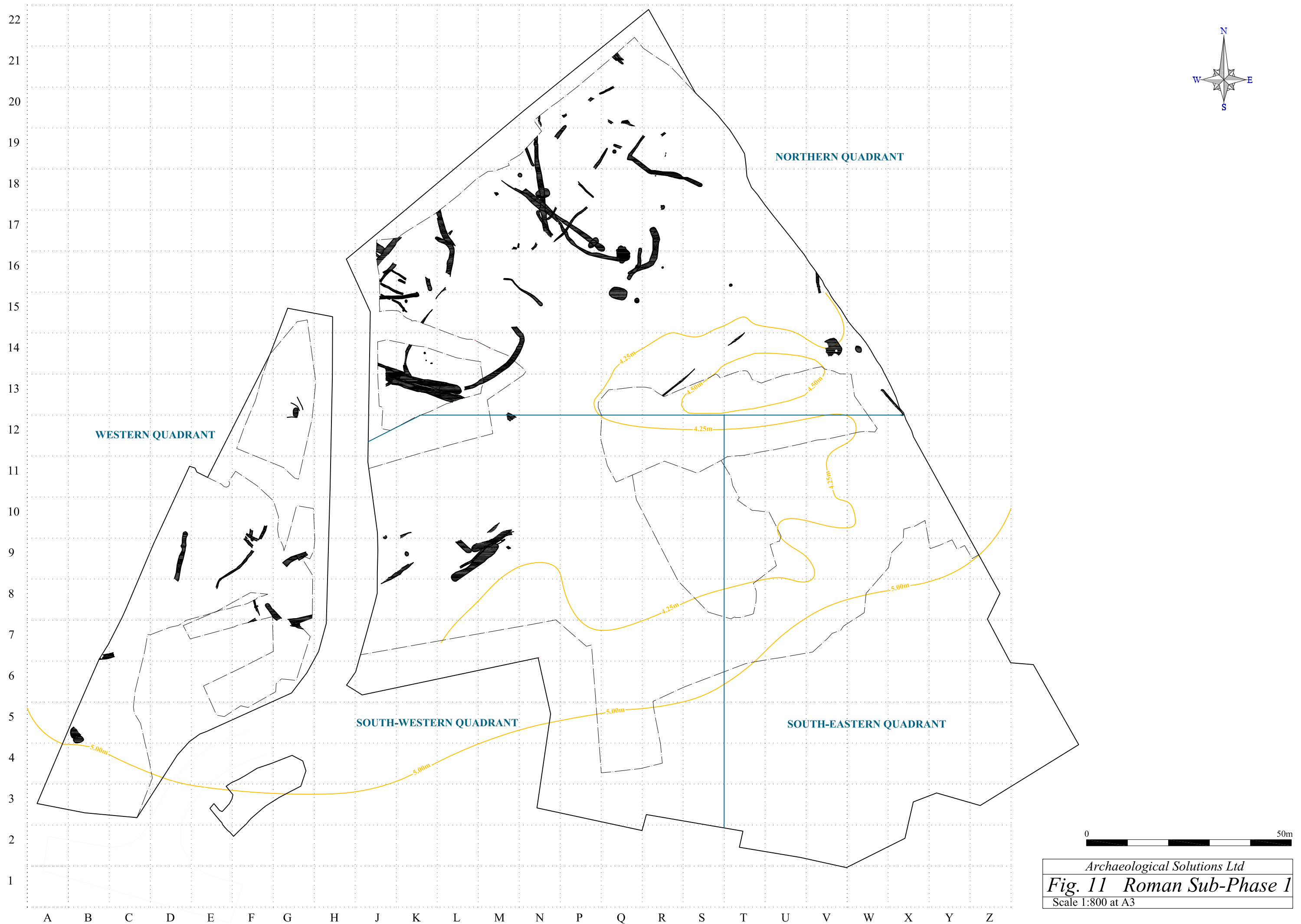
Possible Period I enclosure (2/2)



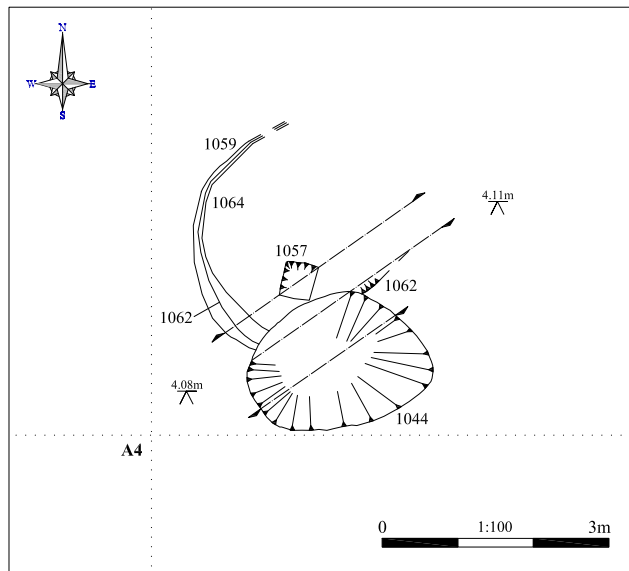




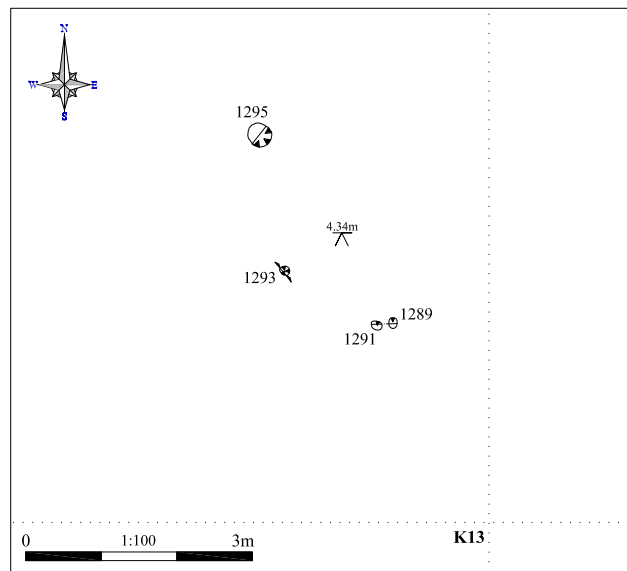
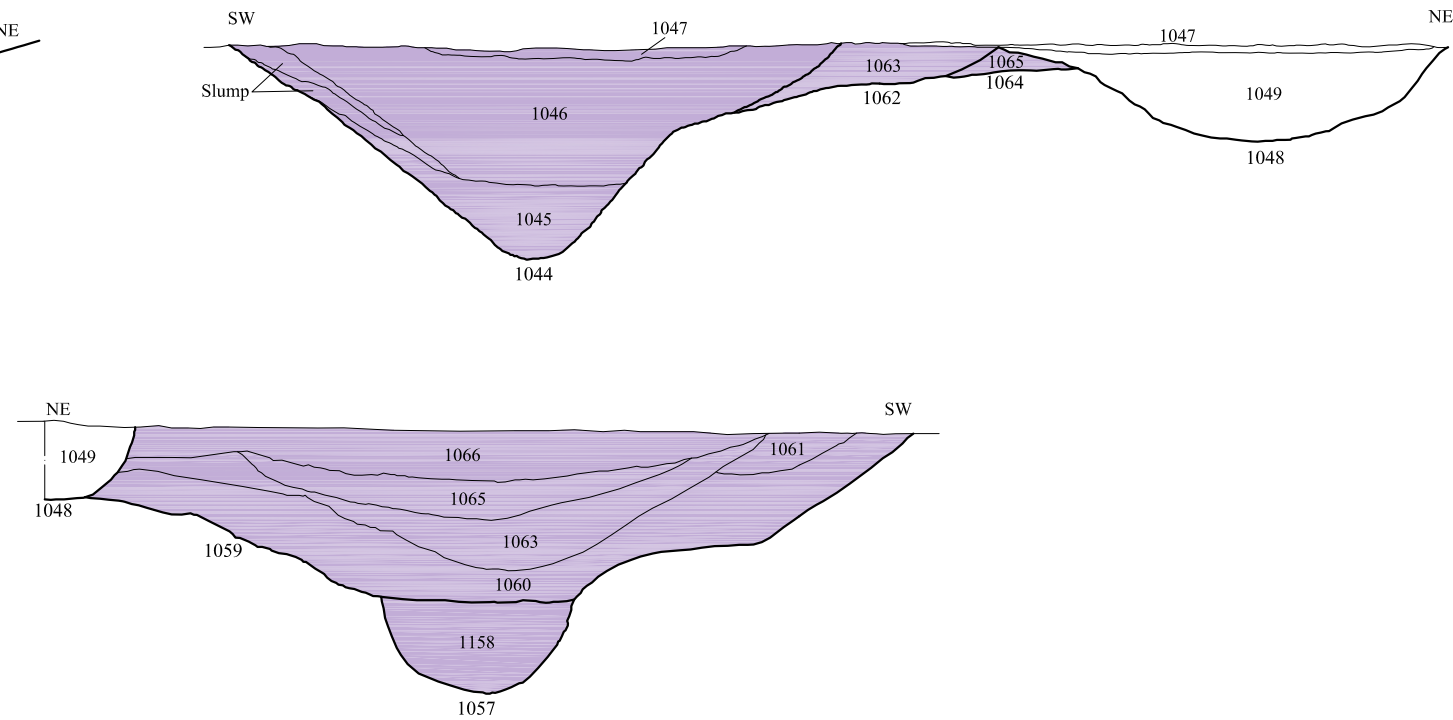
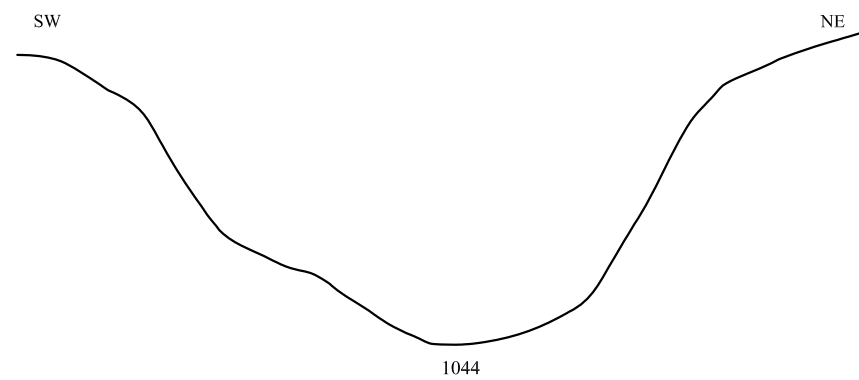
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Fig. 10 Period I - pottery by weight and area
Scale 1:800 at A3



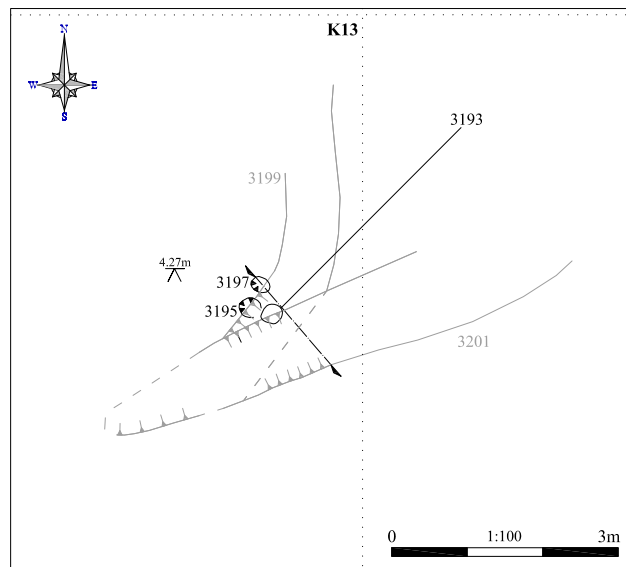
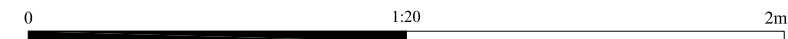
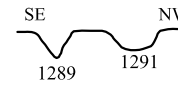
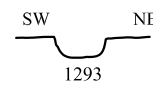
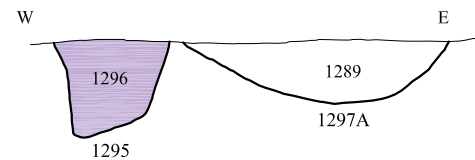
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Fig. 11 Roman Sub-Phase I
Scale 1:800 at A3



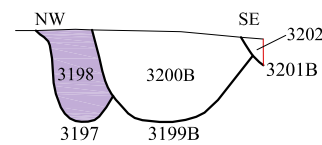
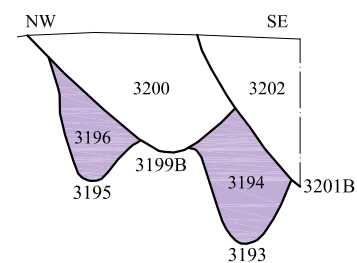
Roman Sub-Phase 1 pit cluster (1/2)



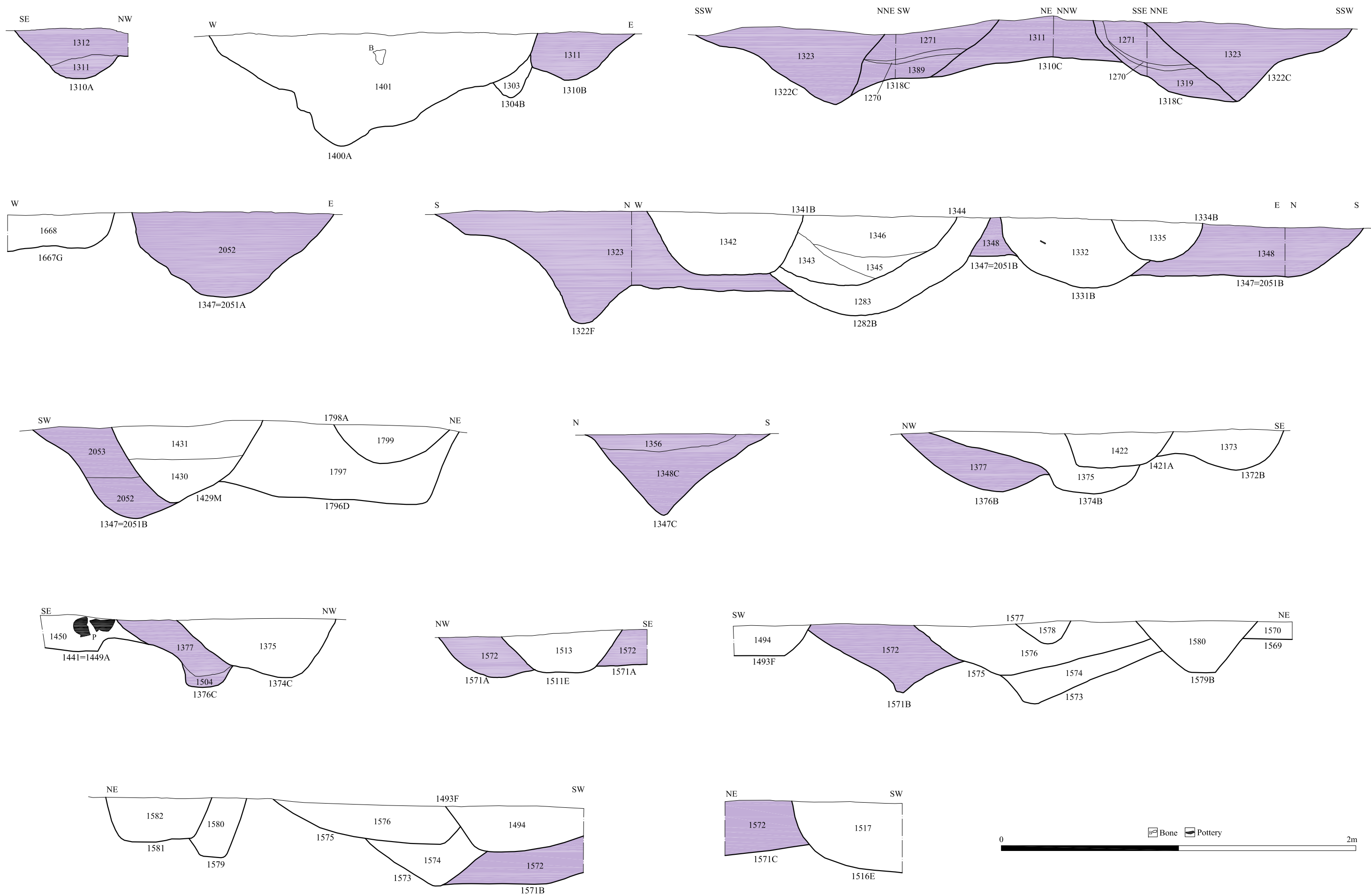
Possible Roman Sub-Phase 1 posthole/stakehole cluster



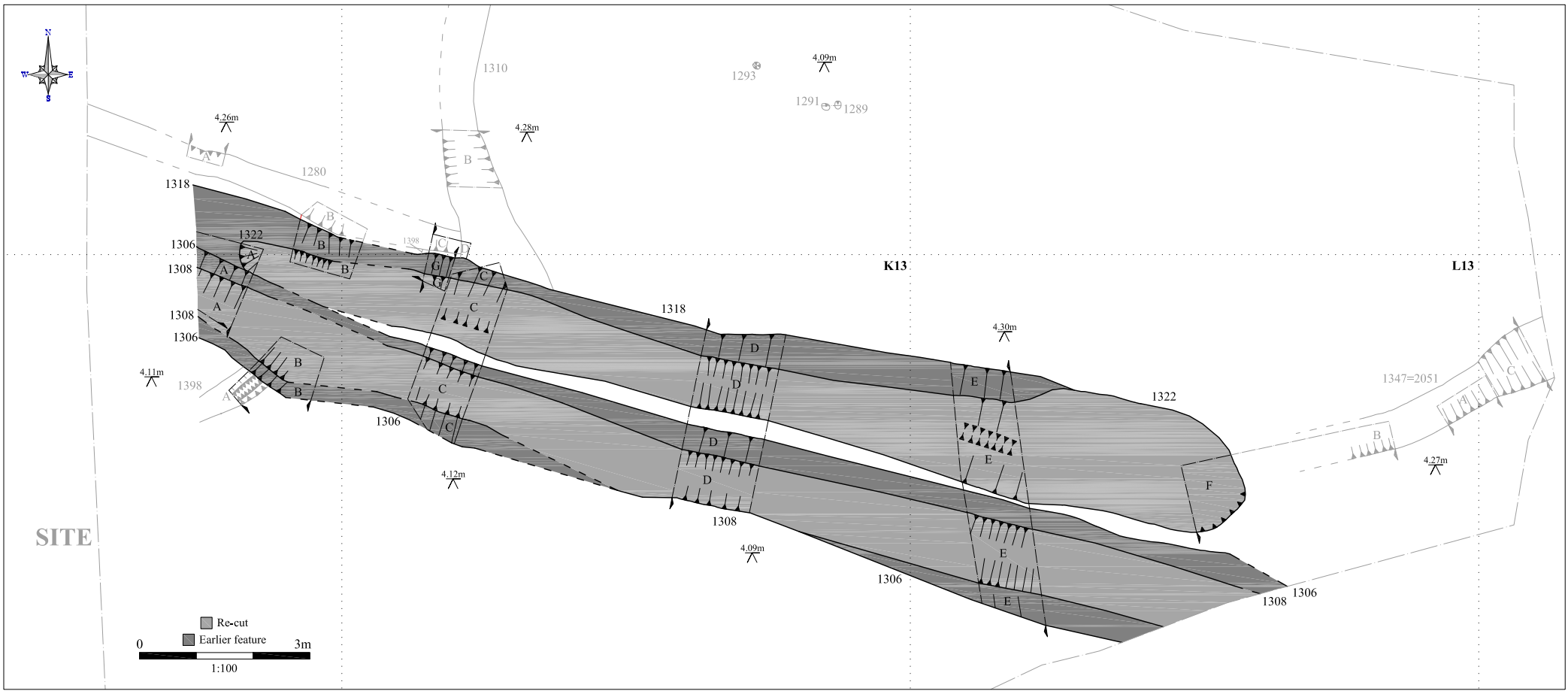
Triangular arrangement of Roman Sub-Phase 1 postholes



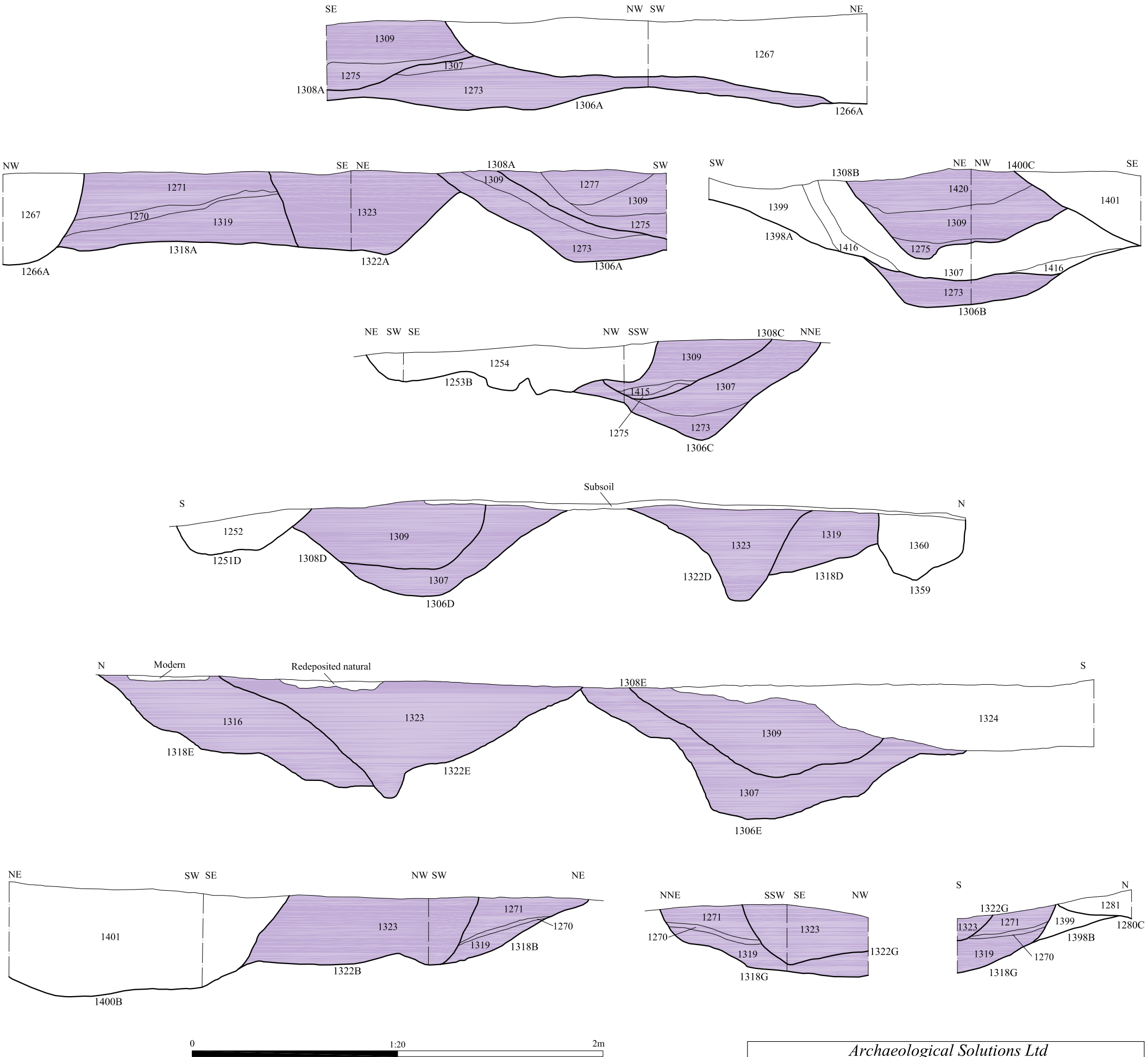




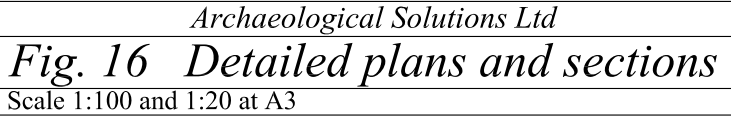
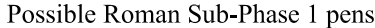
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Fig. 14 Sections - Enclosure 3
 Scale 1:20 at A3

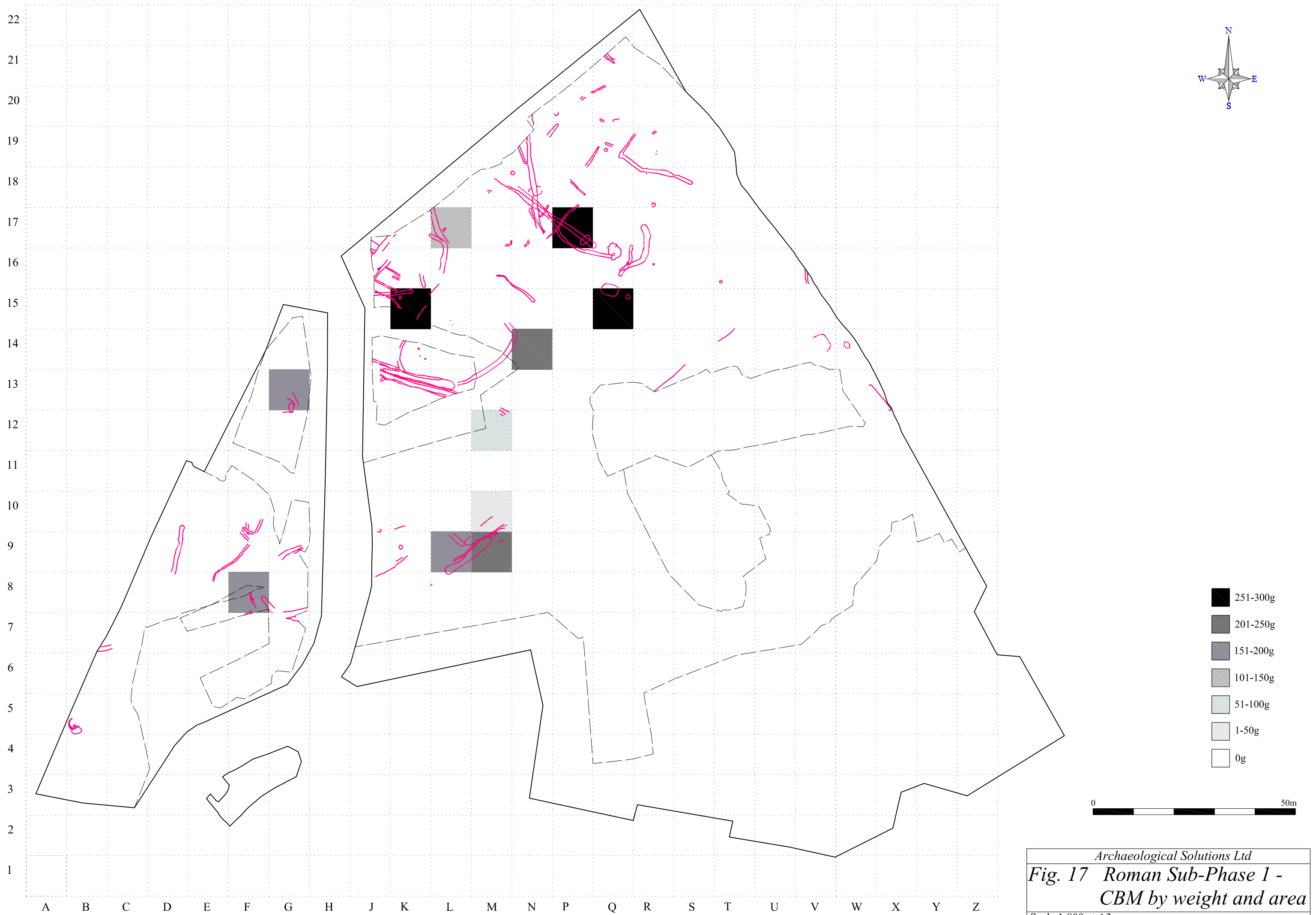


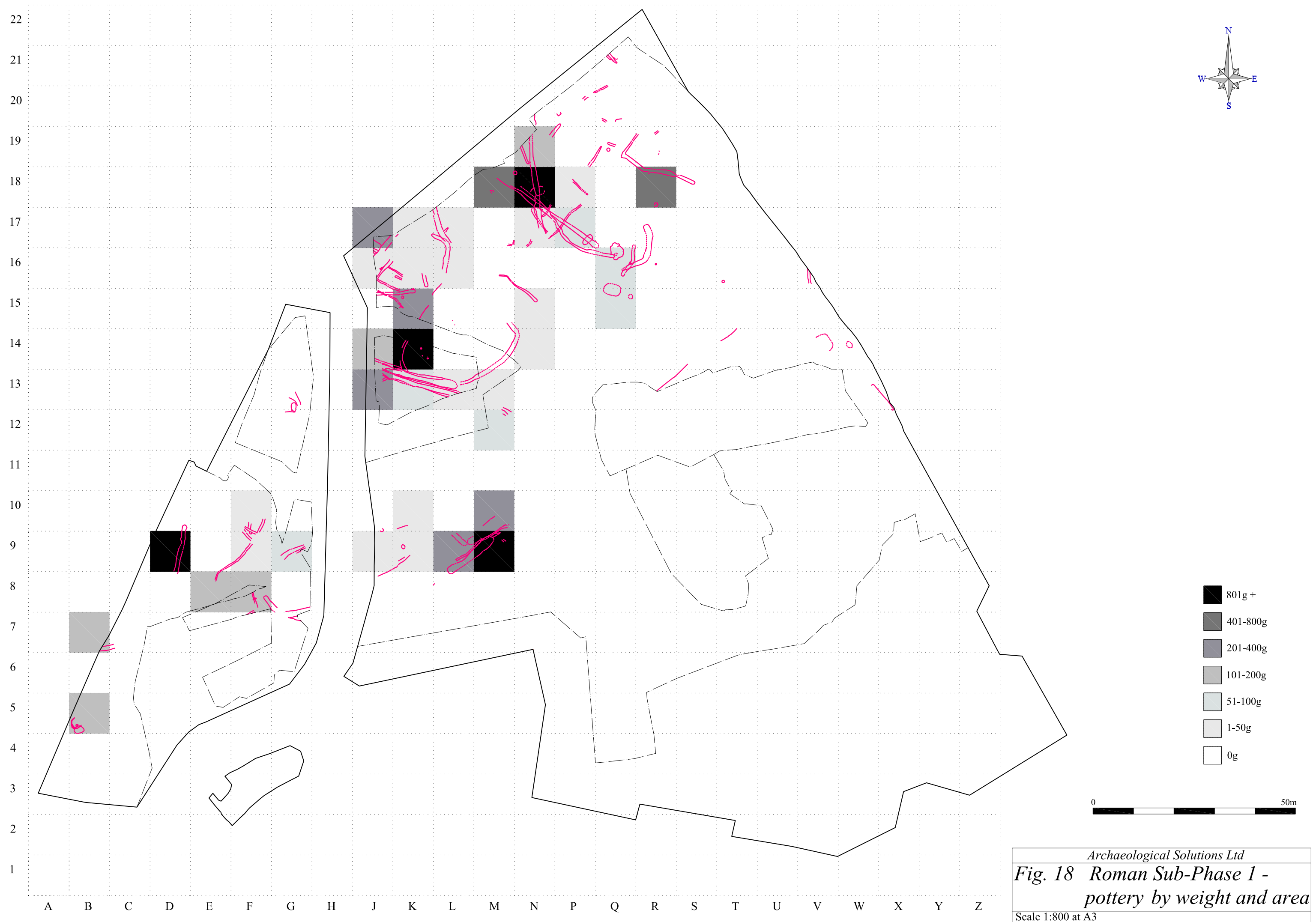
Possible Roman Sub-Phase 1 livestock droveway/management system or double-ditched boundary



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Fig. 15 Detailed plans and sections
 Scale 1:100 and 1:20 at A3

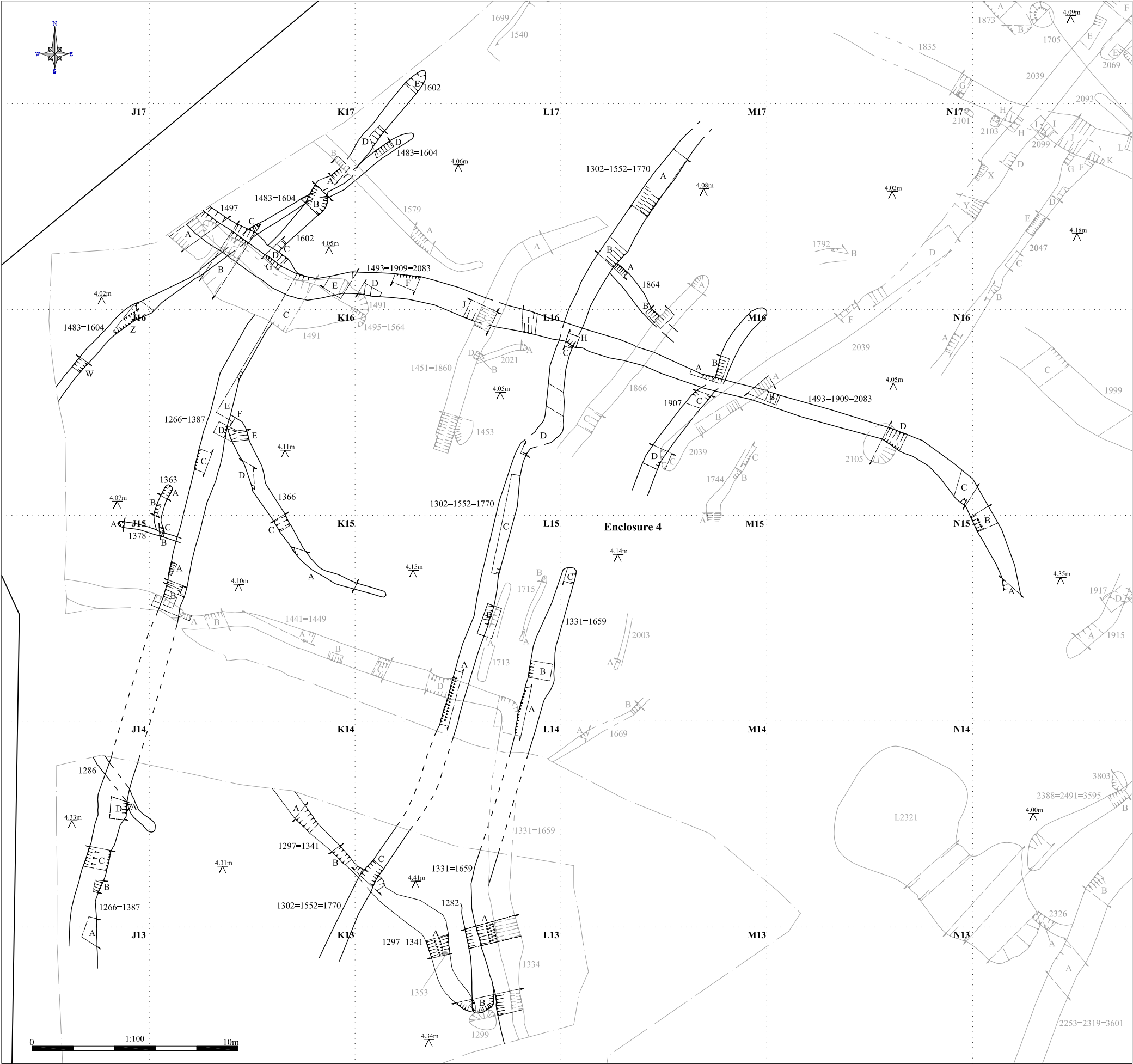




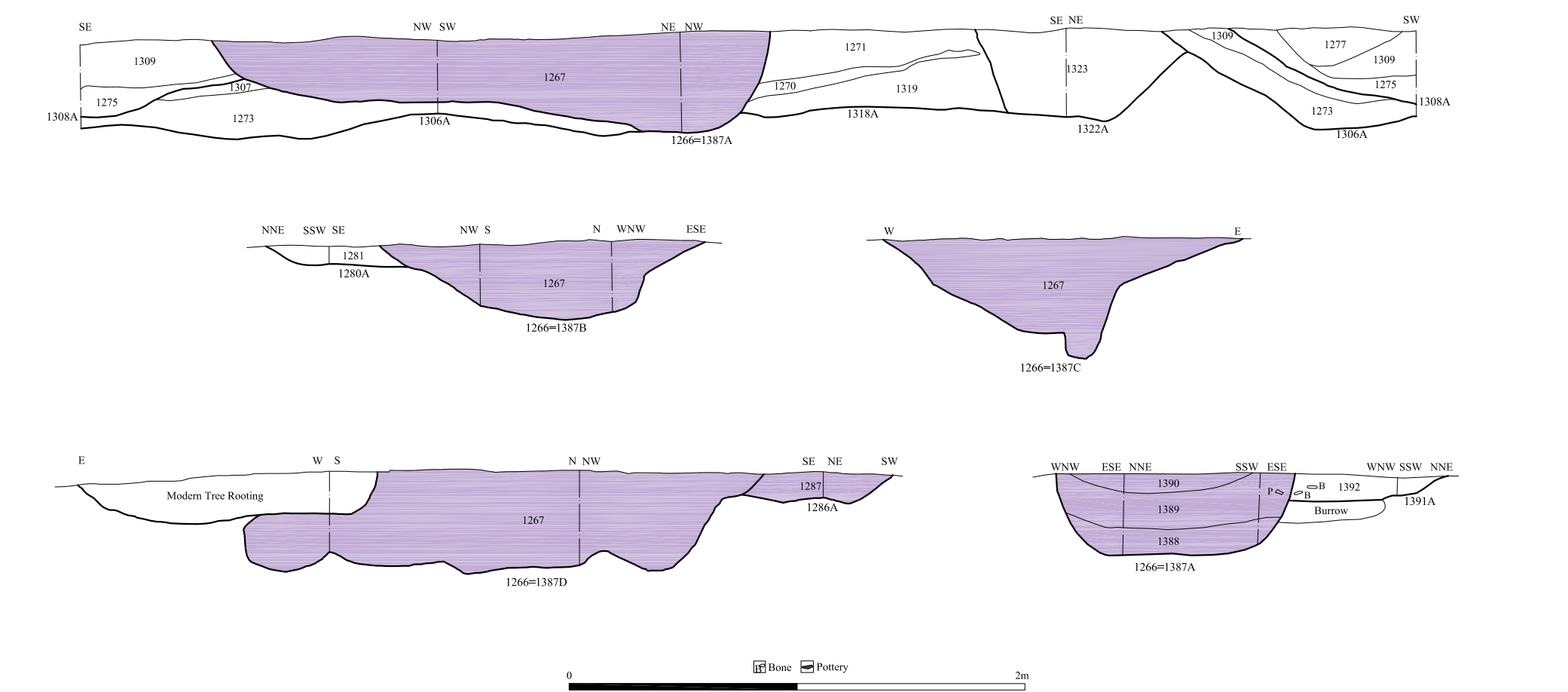


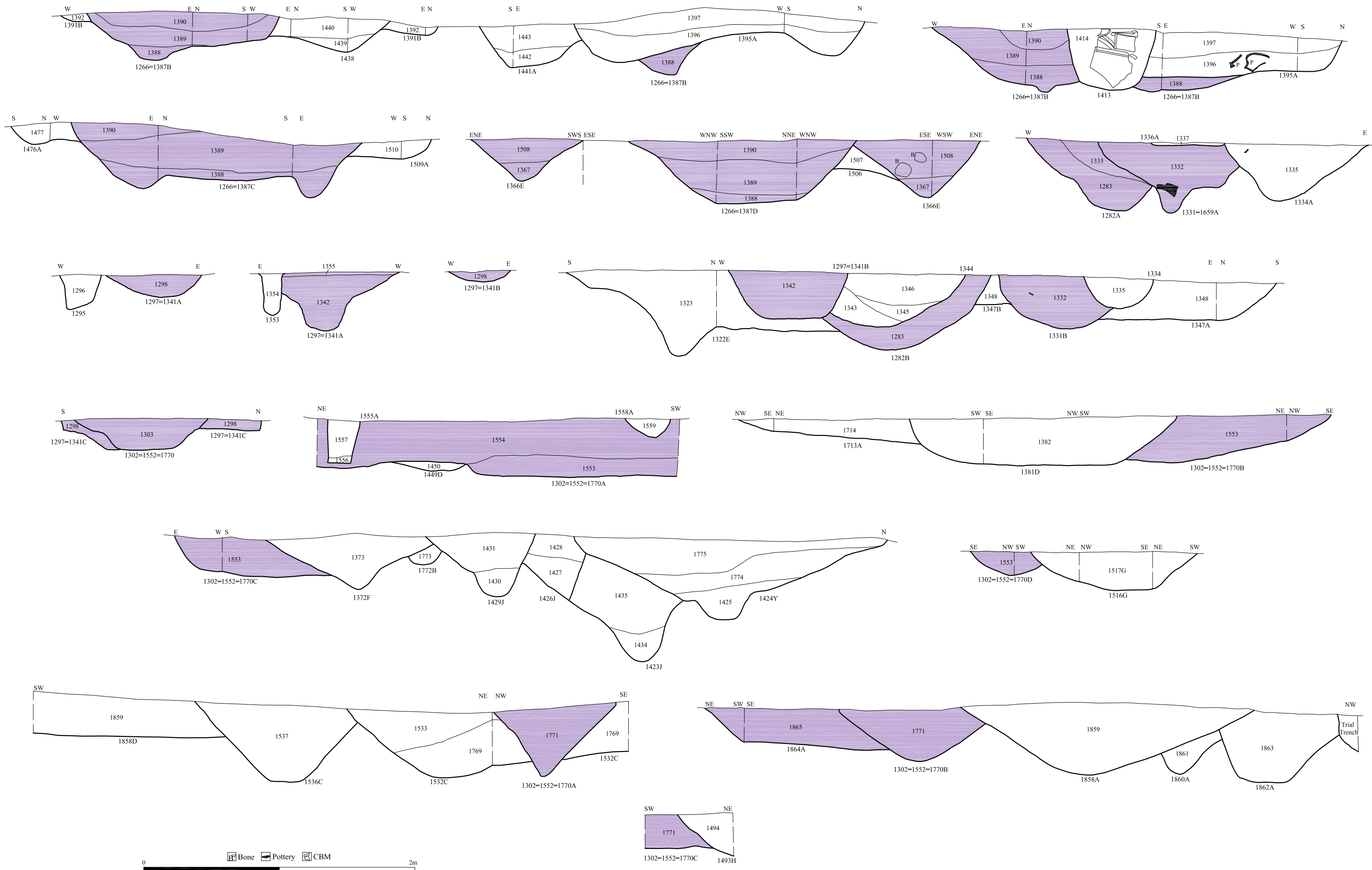
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**Fig. 18 Roman Sub-Phase 1 -
pottery by weight and area**
Scale 1:800 at A3



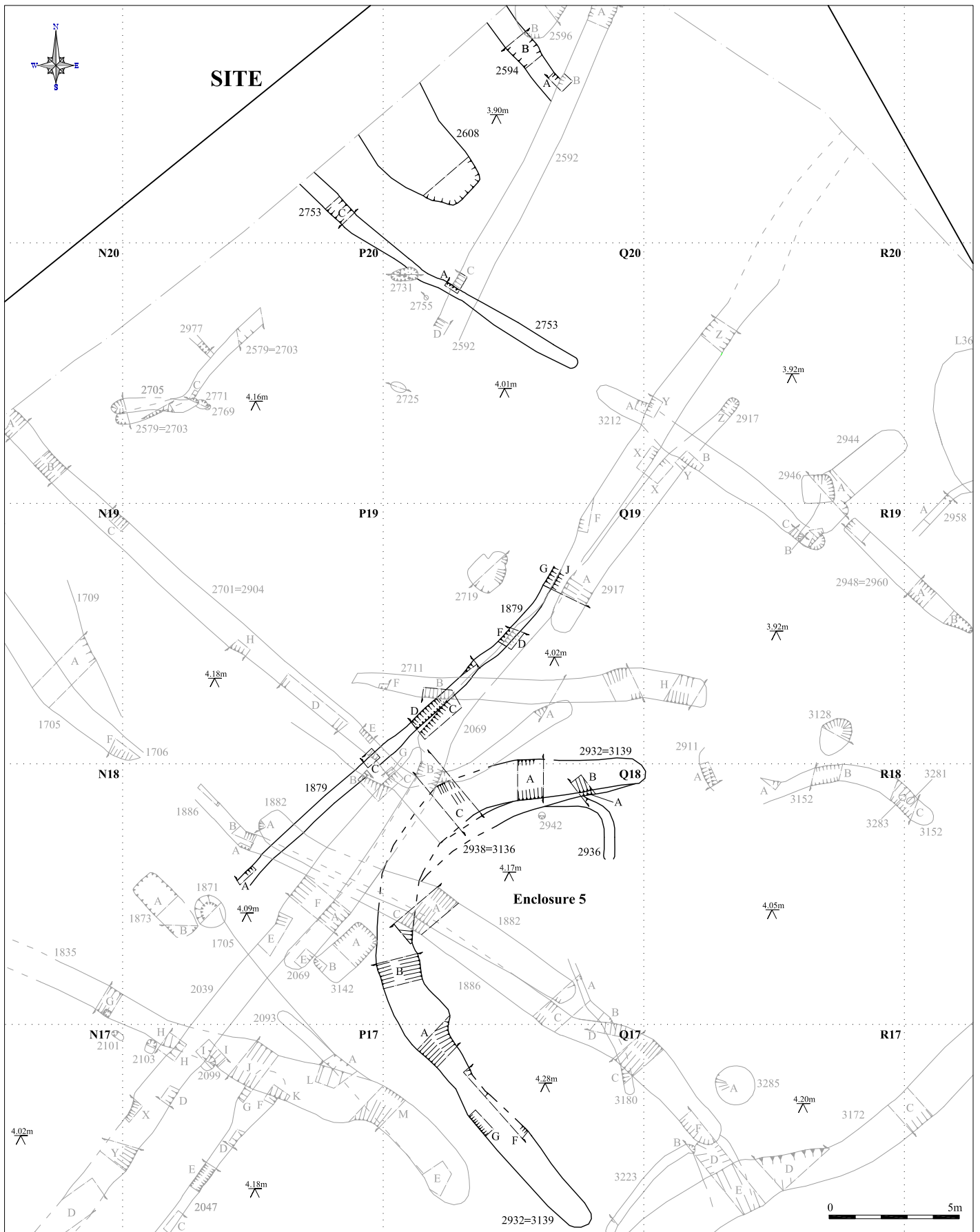


Roman Sub-Phase 2 Enclosure System 1 (A)

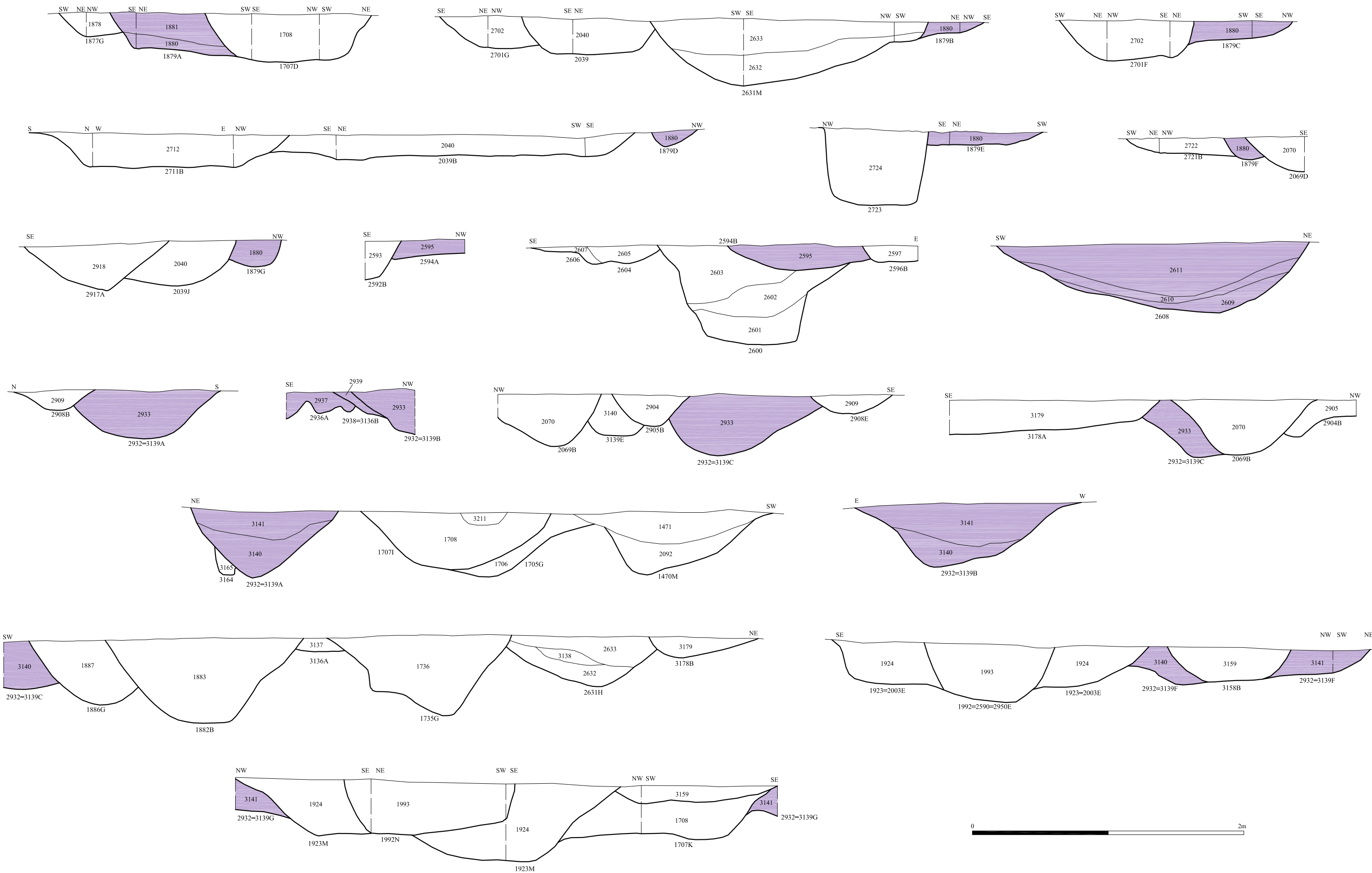




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Fig. 21 Sections
 Scale 1:25 at A3

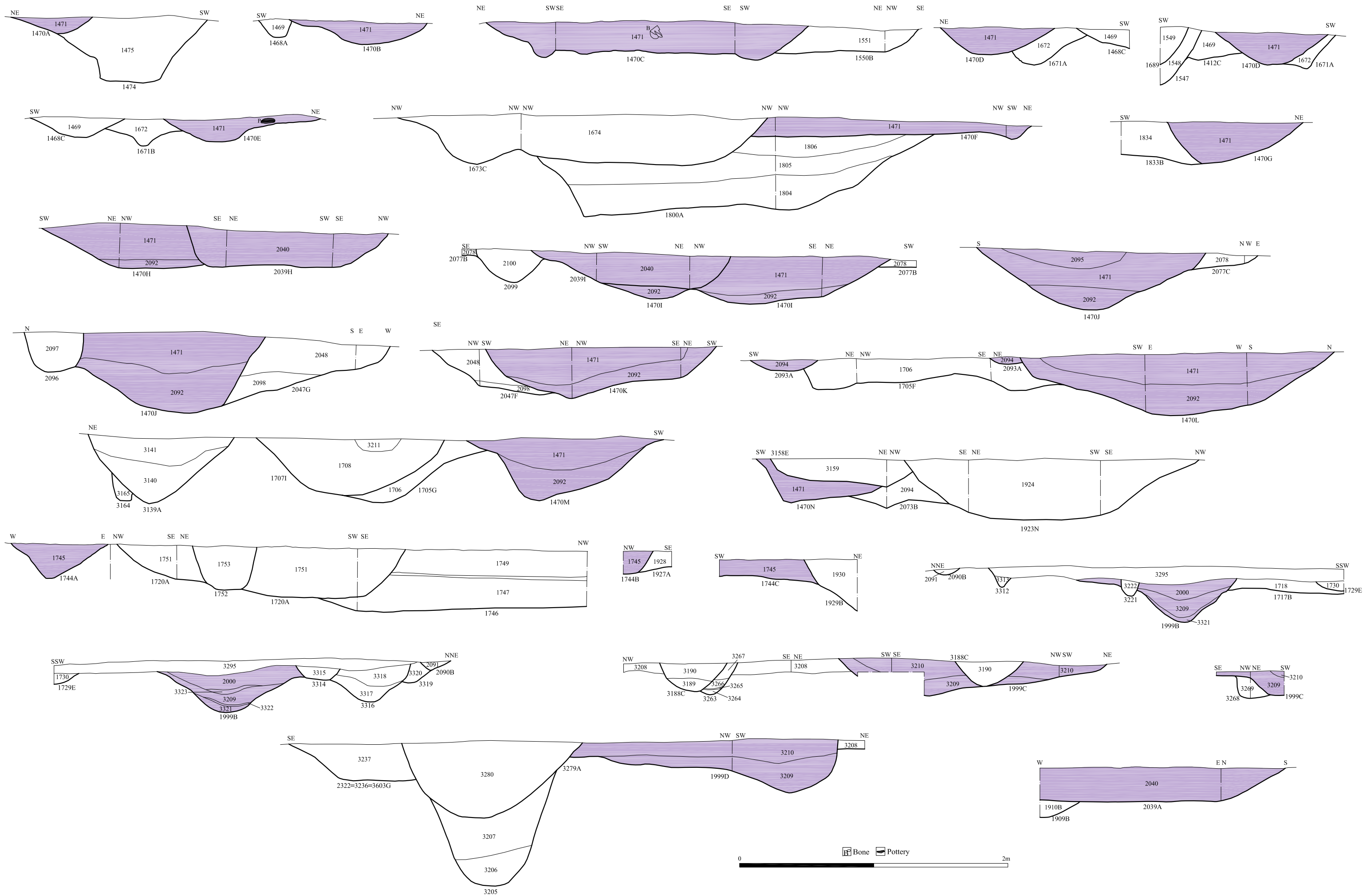


Roman Sub-Phase 2 Enclosure System 1 (B)

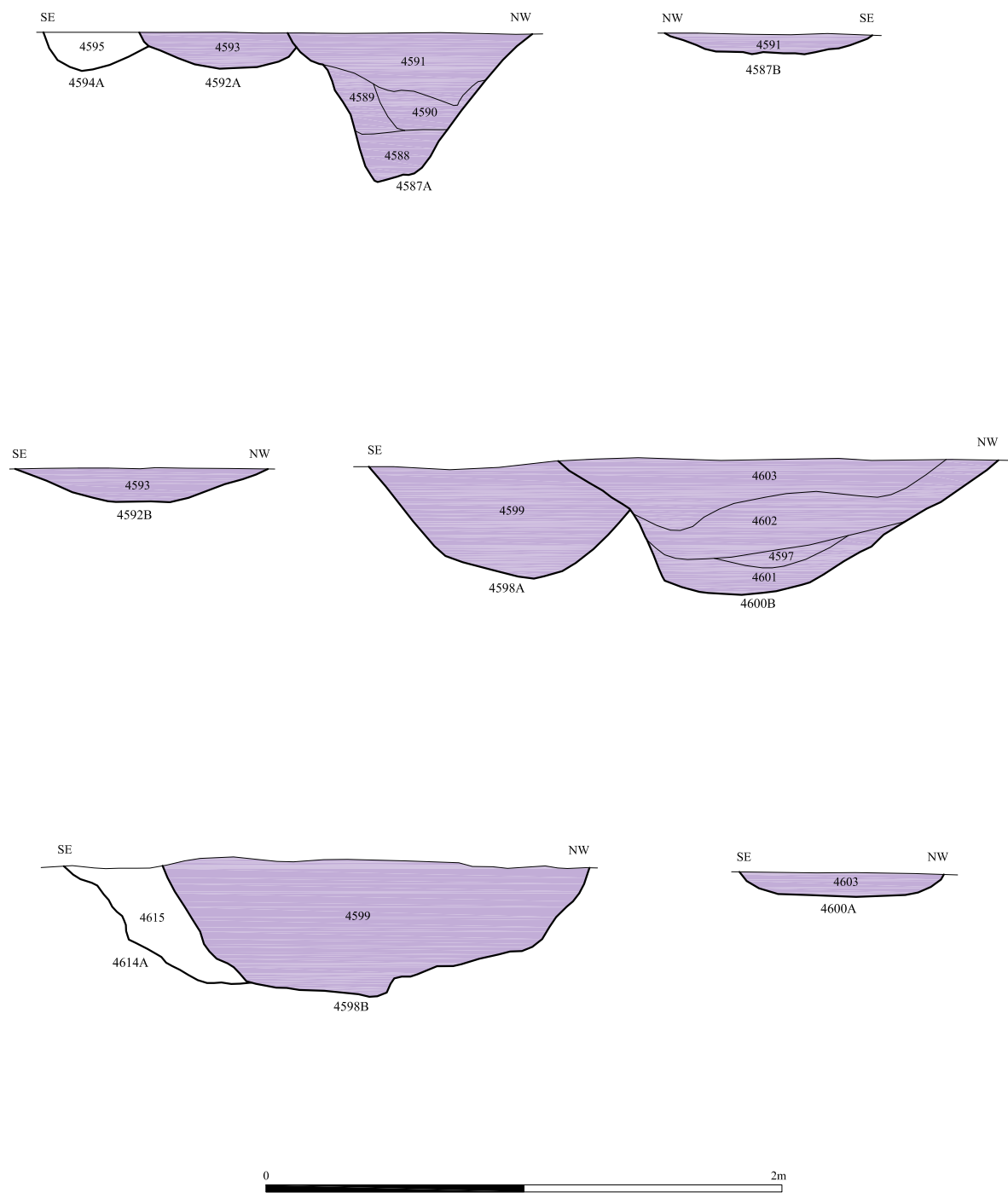


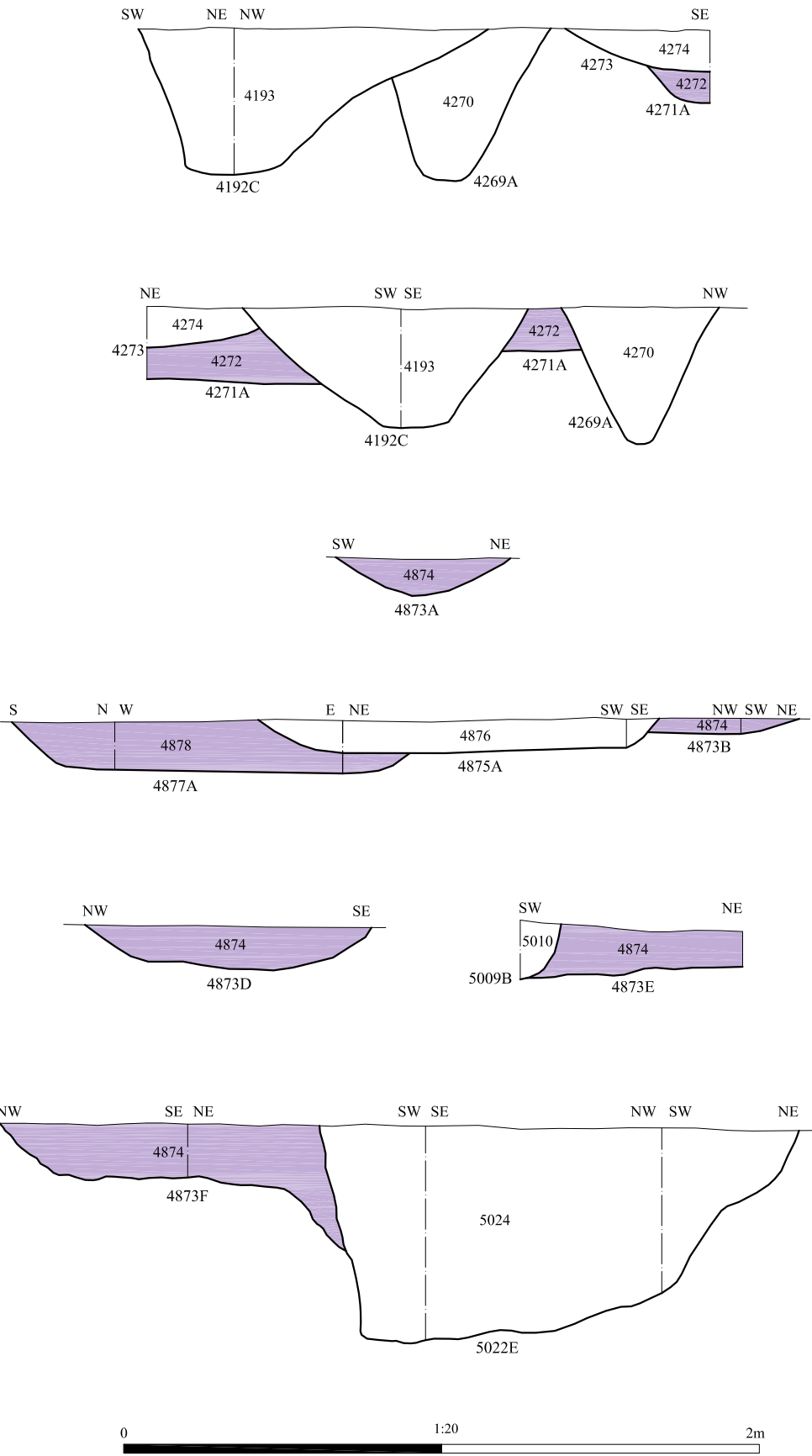
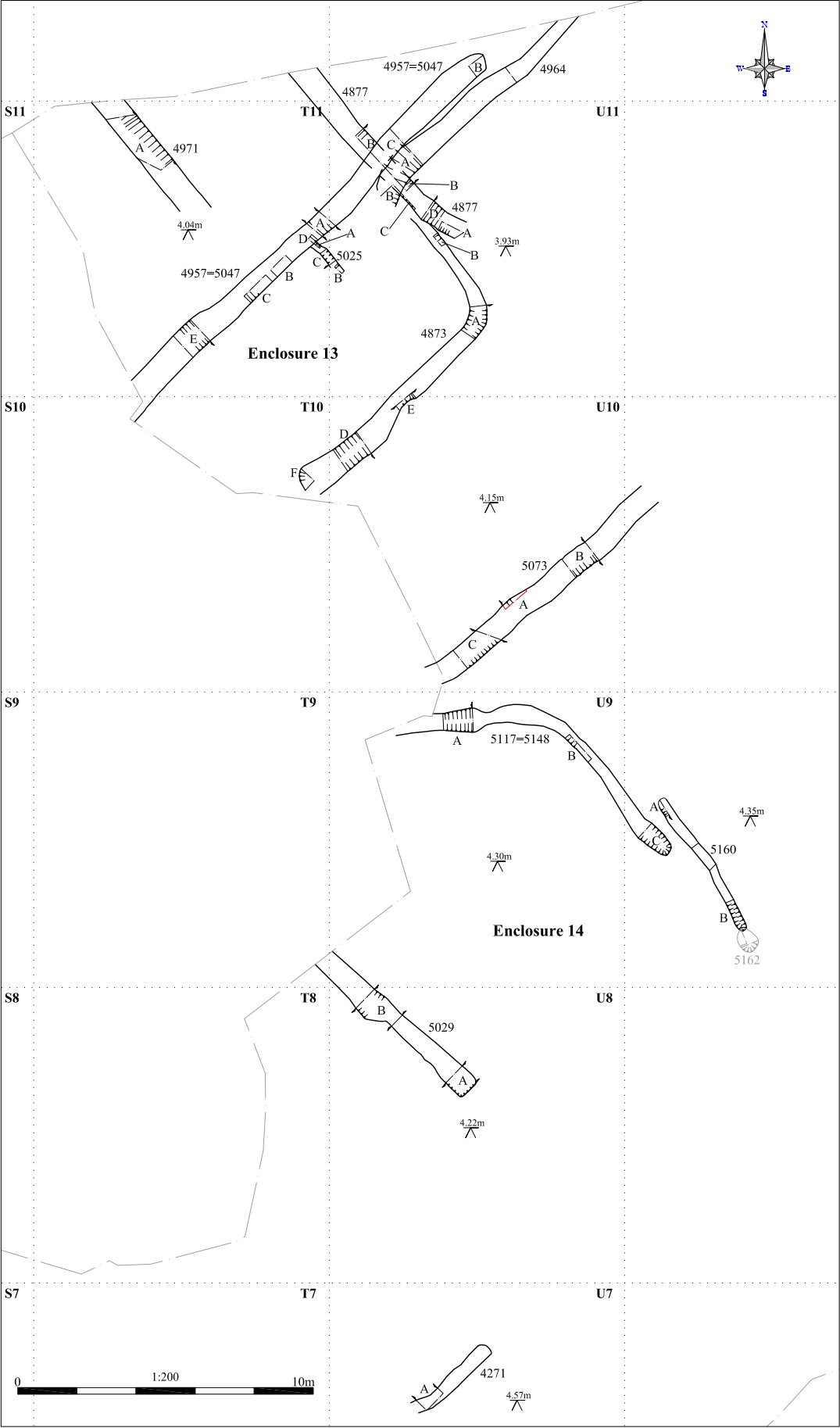


Roman Sub-Phase 2 Enclosure System 3

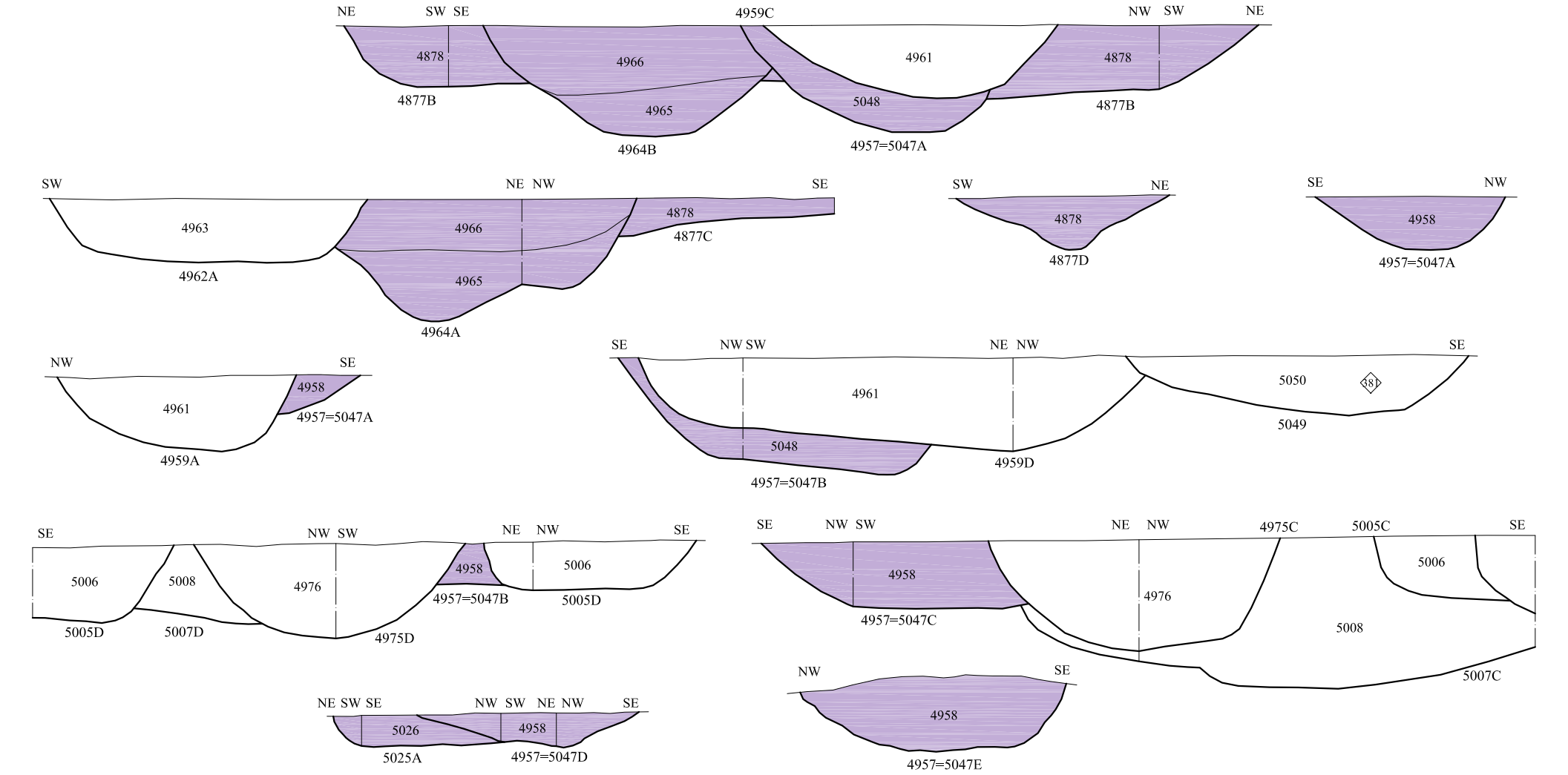


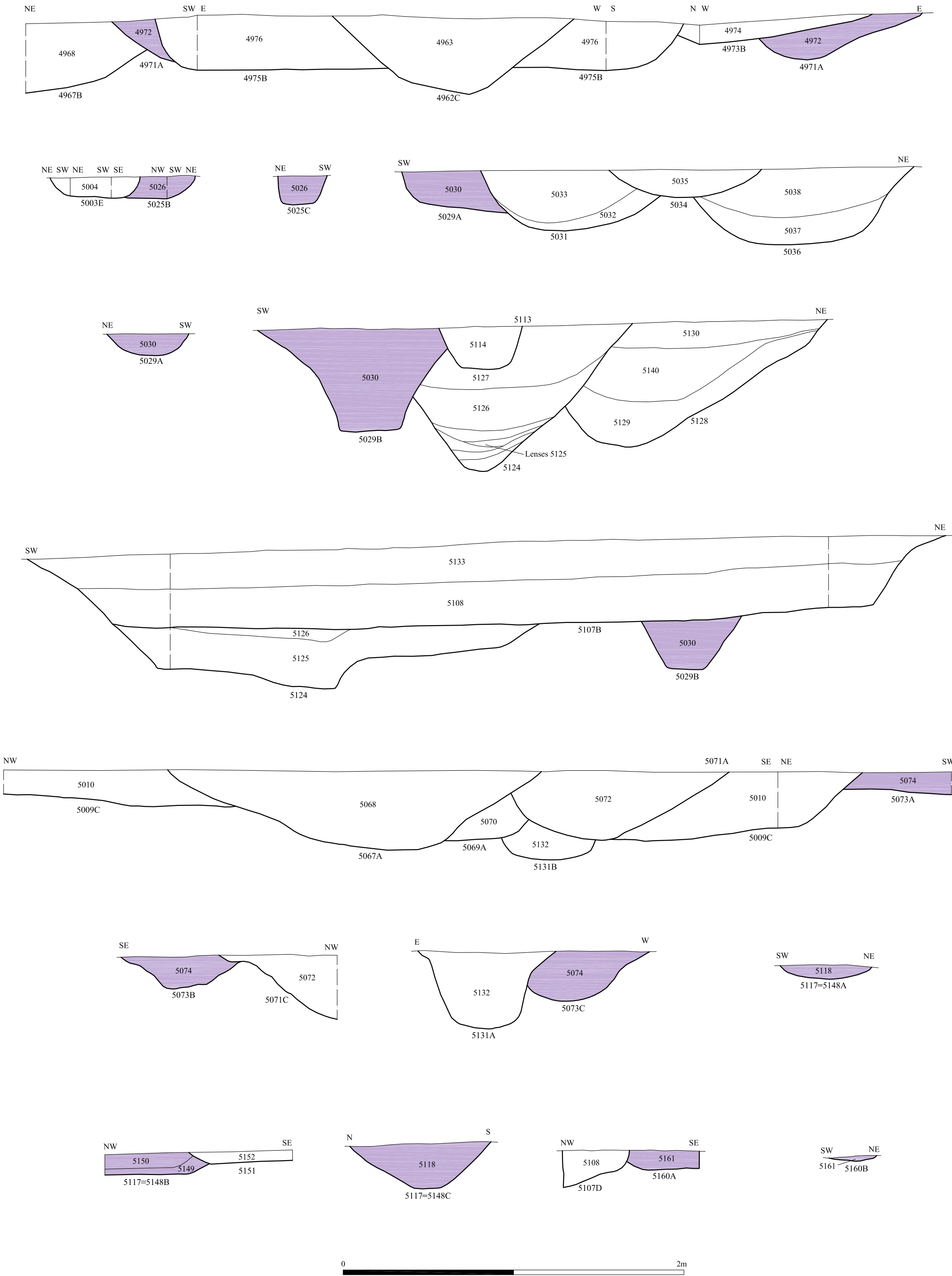
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Fig. 28 Sections
 Scale 1:25 at A3



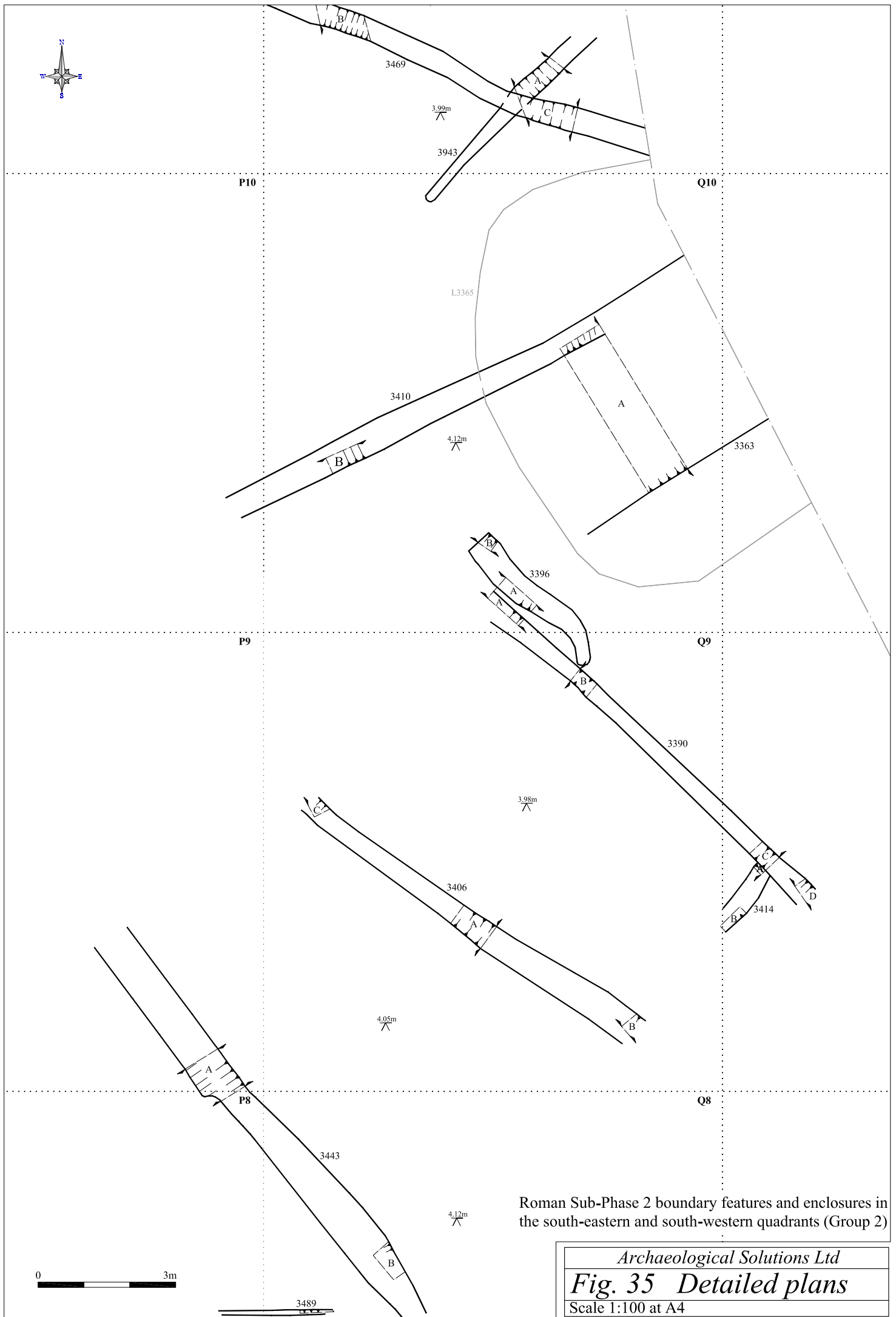


Roman Sub-Phase 2 boundary features and enclosures in the south-eastern and south-western quadrants (Group 1)





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Fig. 34 Sections
Scale 1:20 at A3

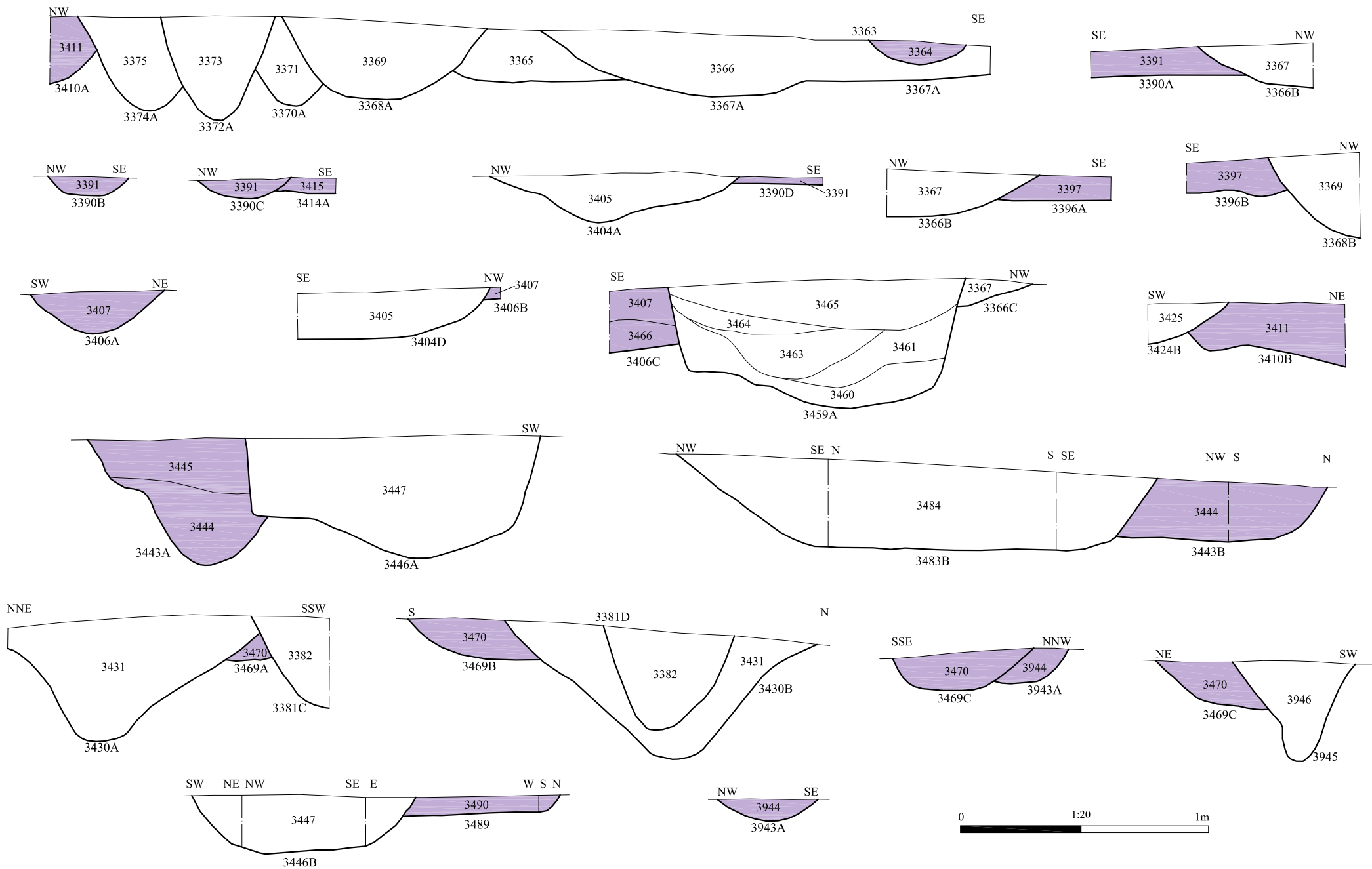


Roman Sub-Phase 2 boundary features and enclosures in the south-eastern and south-western quadrants (Group 2)

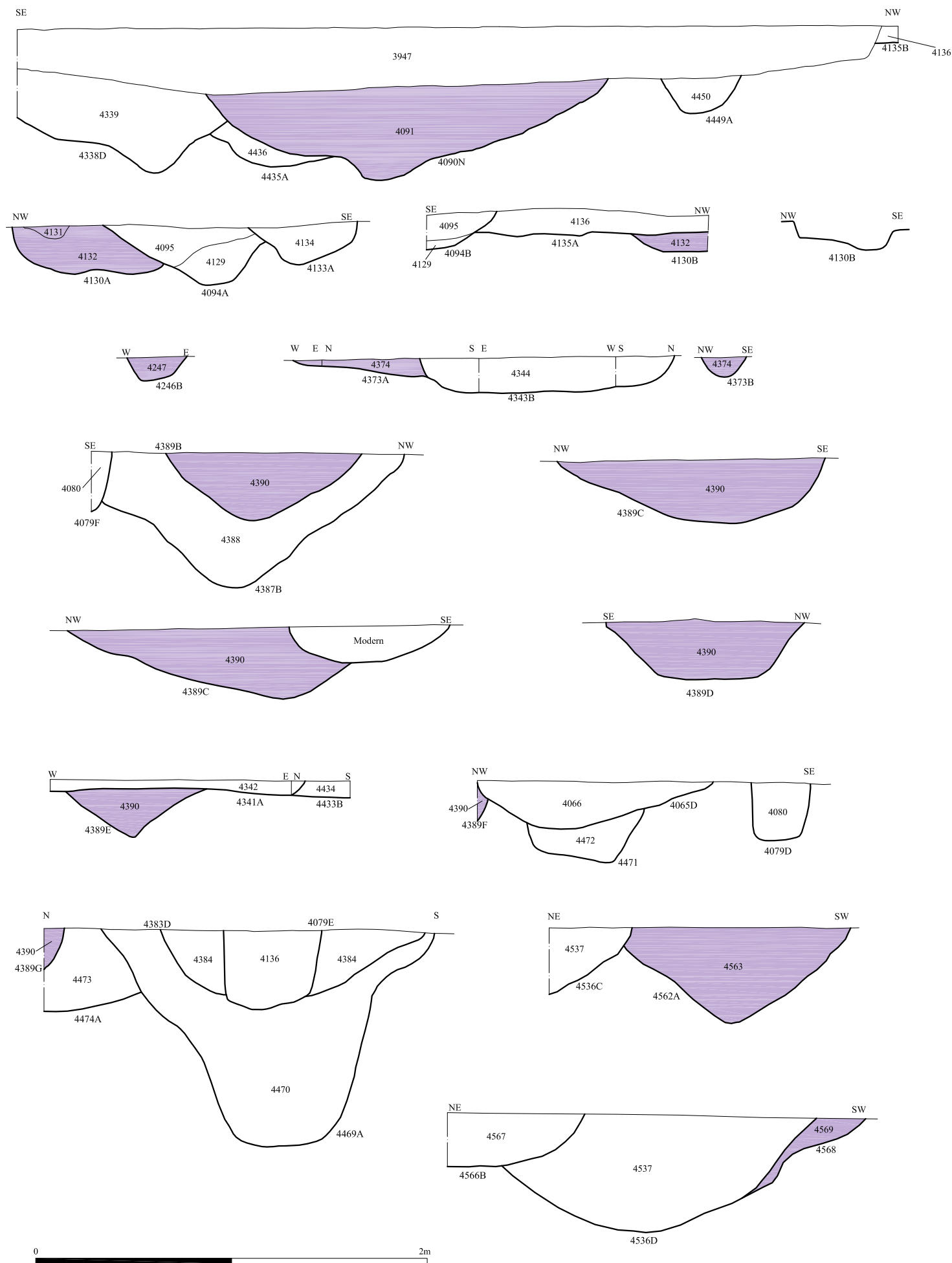
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Fig. 35 Detailed plans

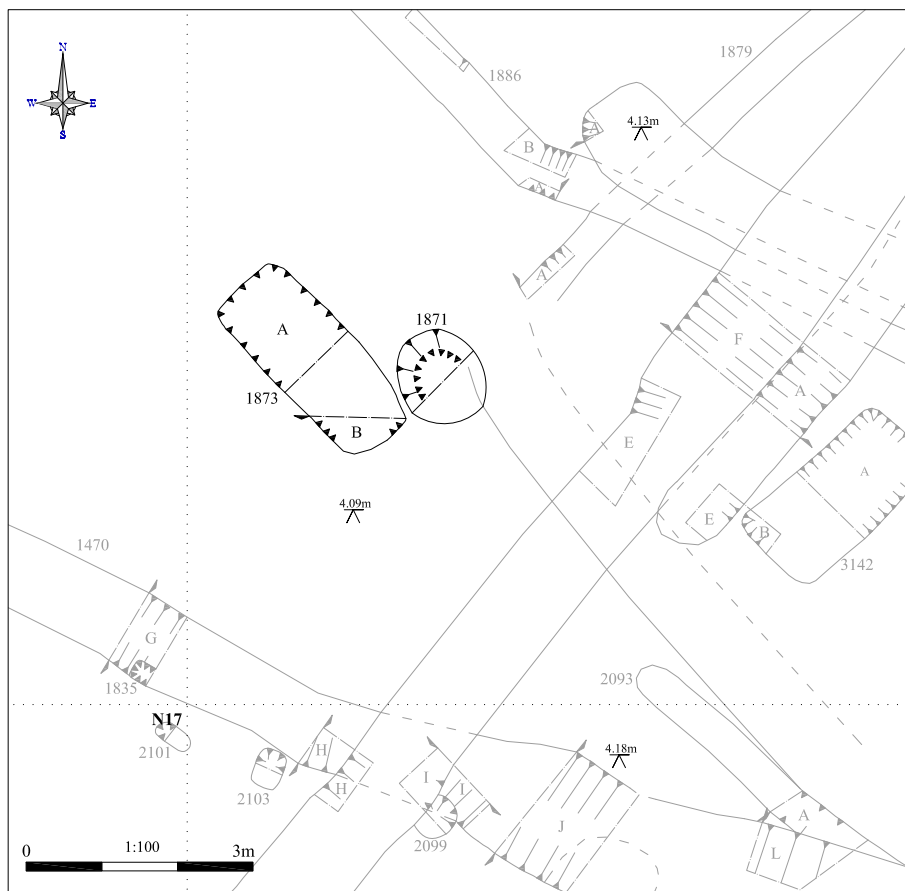
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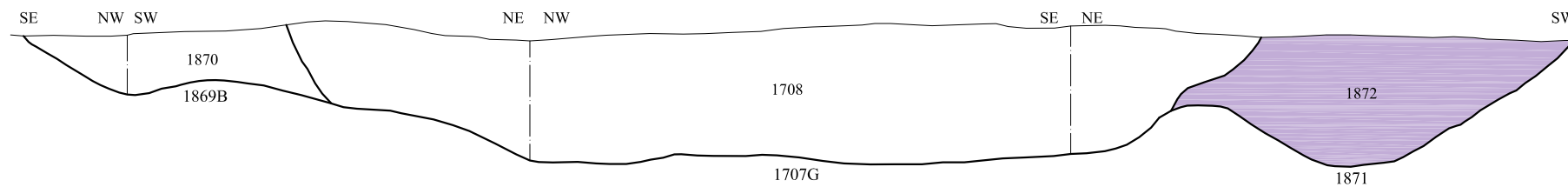
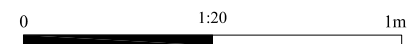
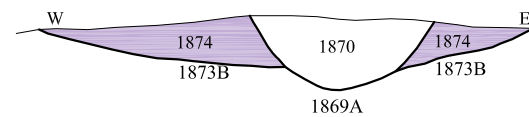
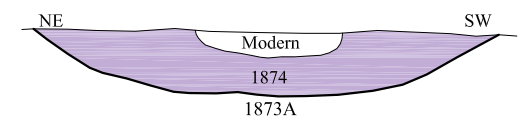
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Fig. 36 Sections
 Scale 1:20 at A4

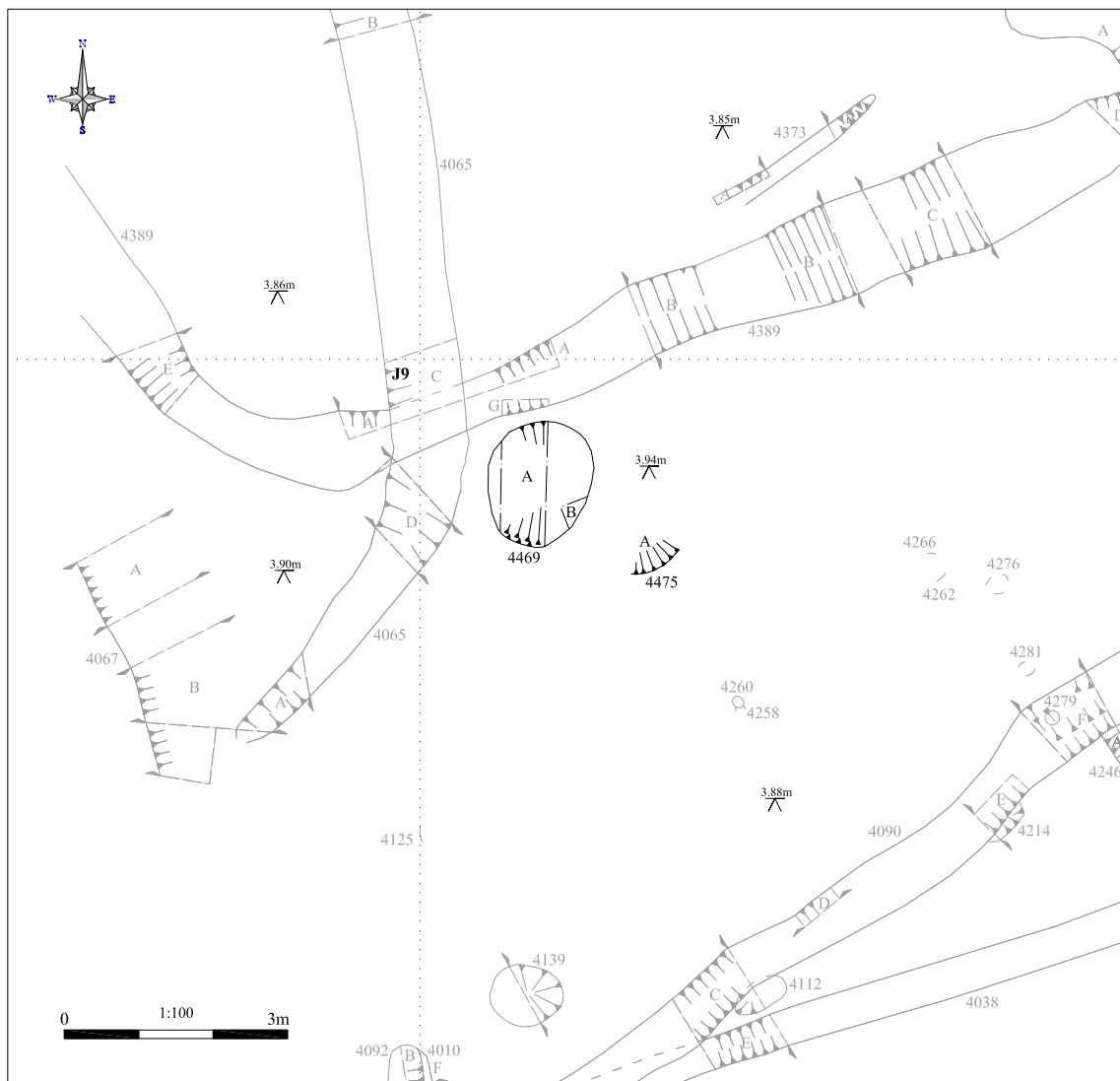


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Fig. 39 Sections
 Scale 1:25 at A4

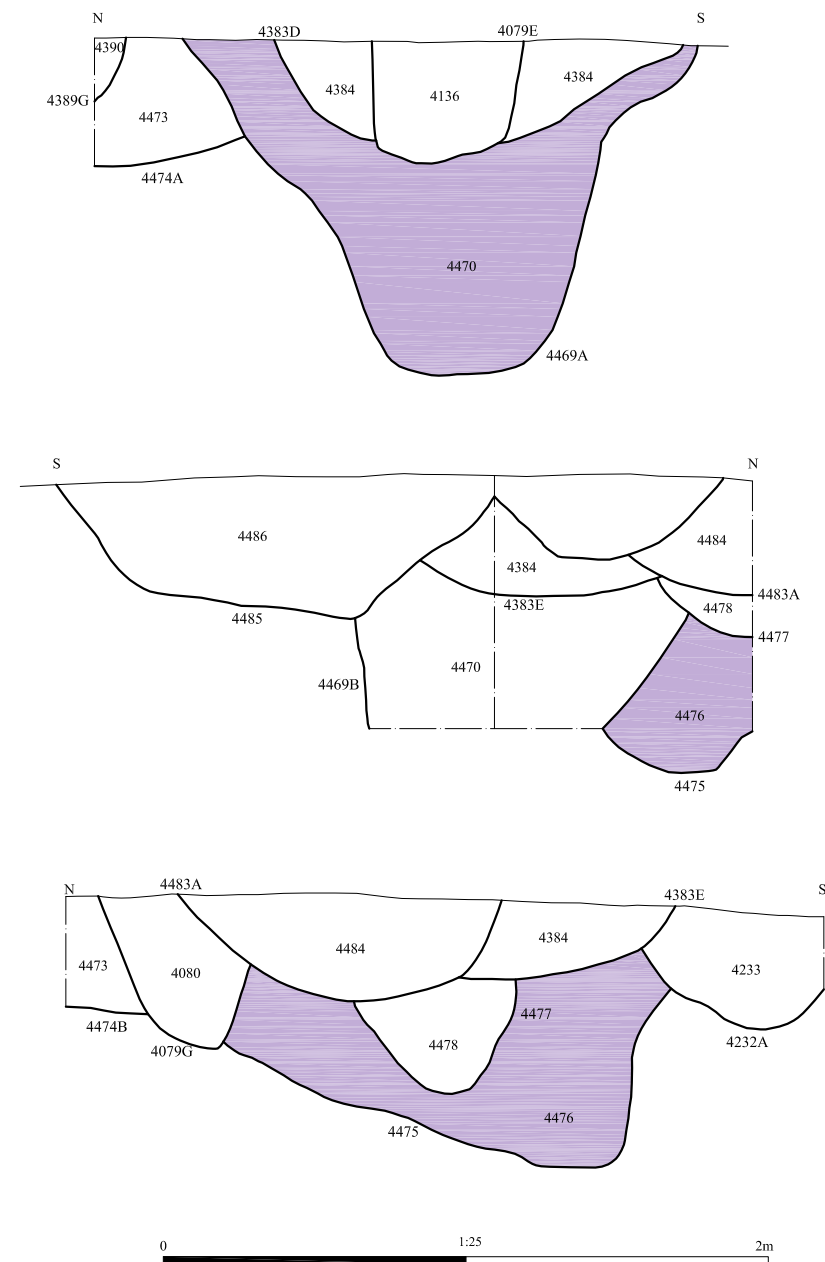


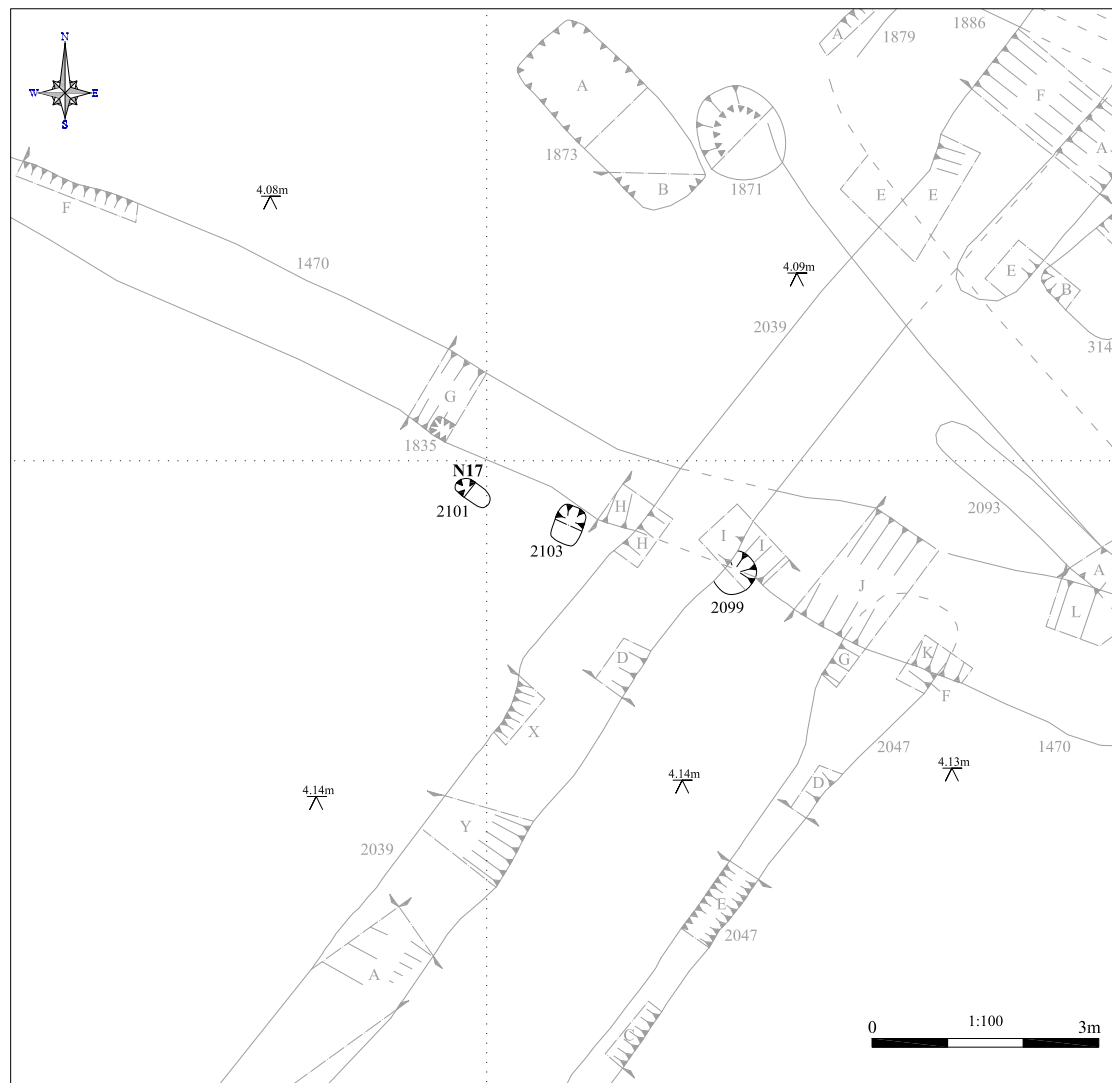
Possible Roman Sub-Phase 2 pit pair (1/2)



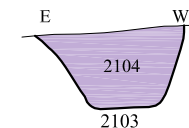
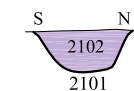
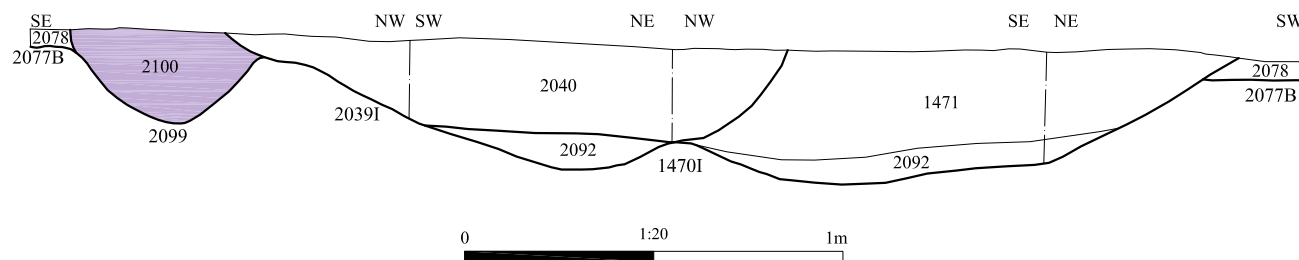


Possible Roman Sub-Phase 2 pit pair (2/2)

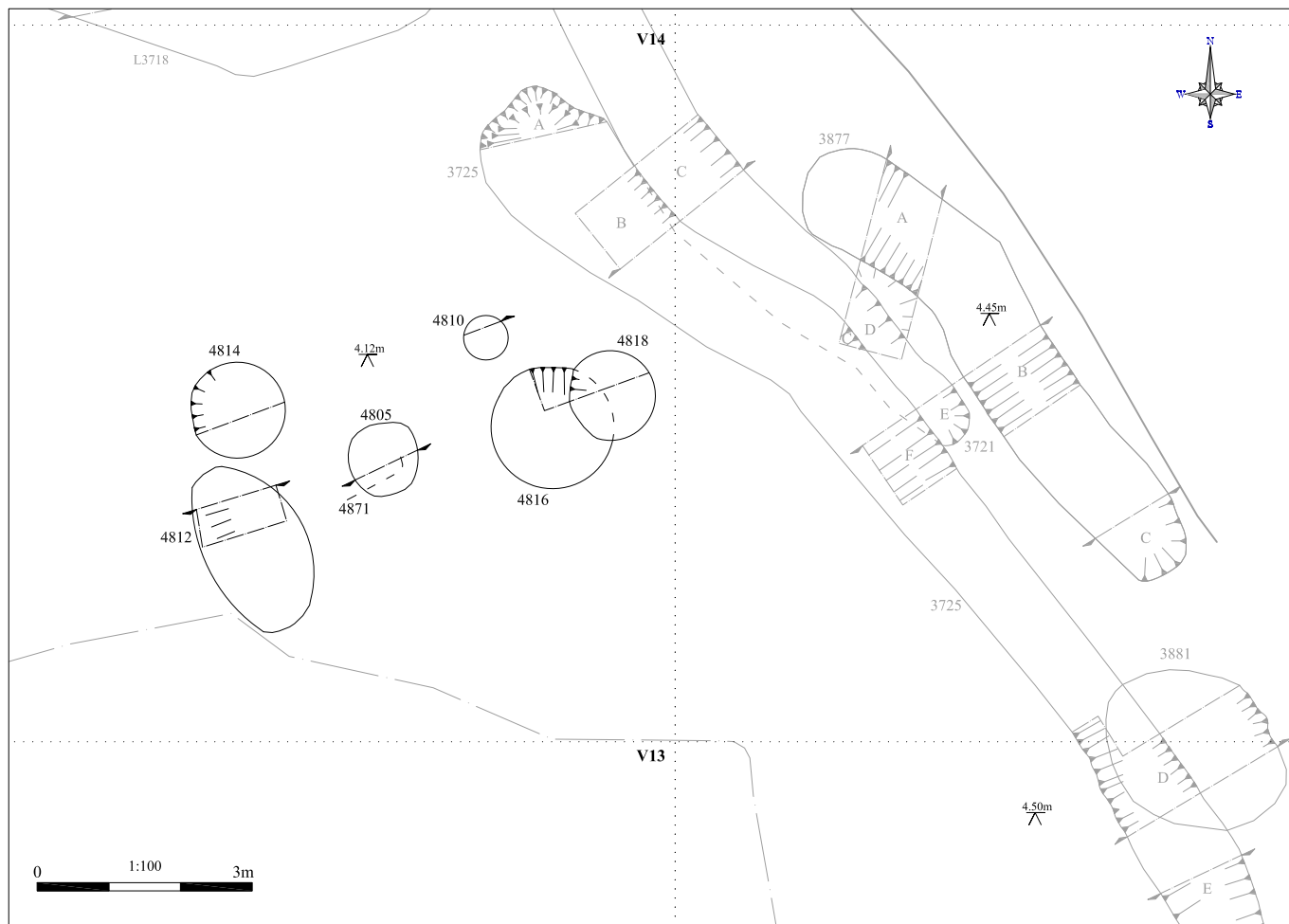




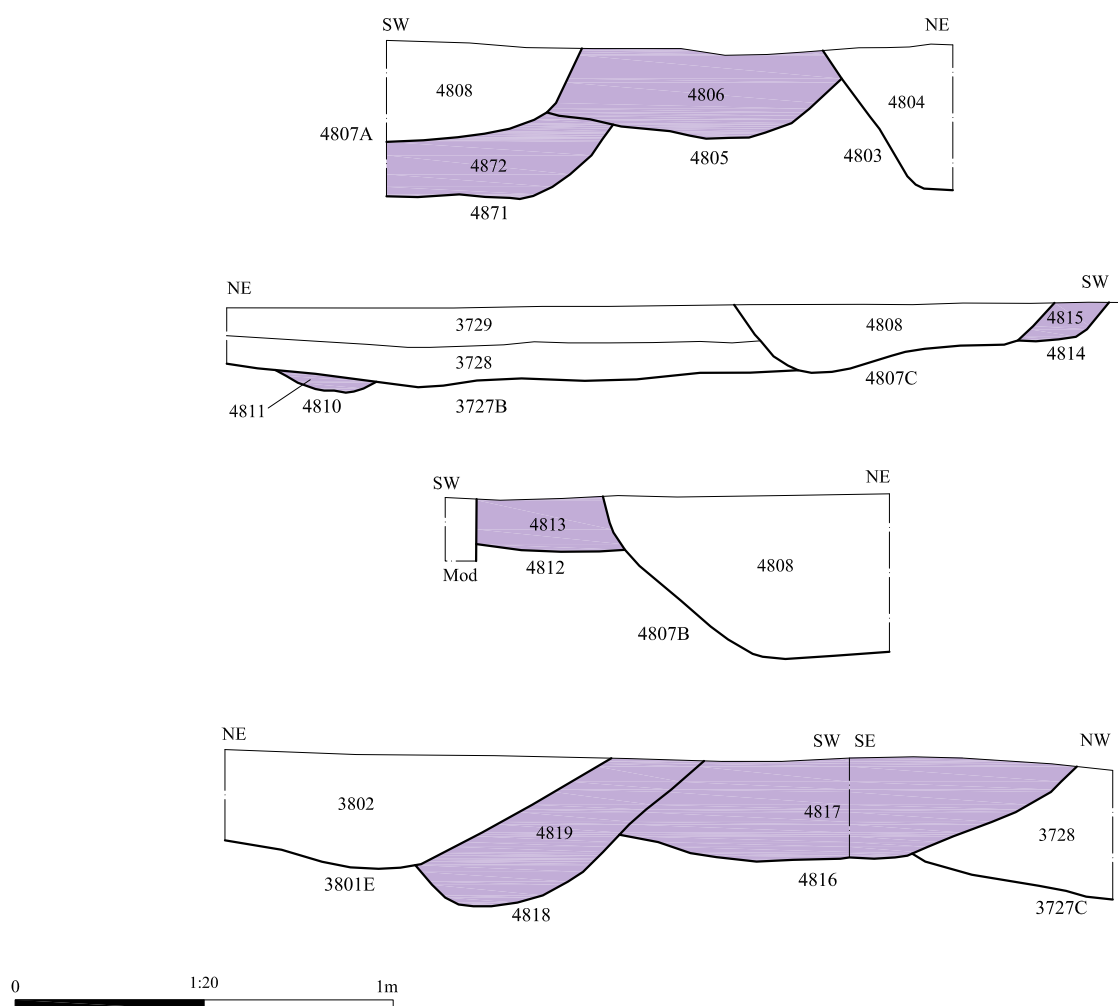
Possible Roman Sub-Phase 2 pit cluster (1/2)

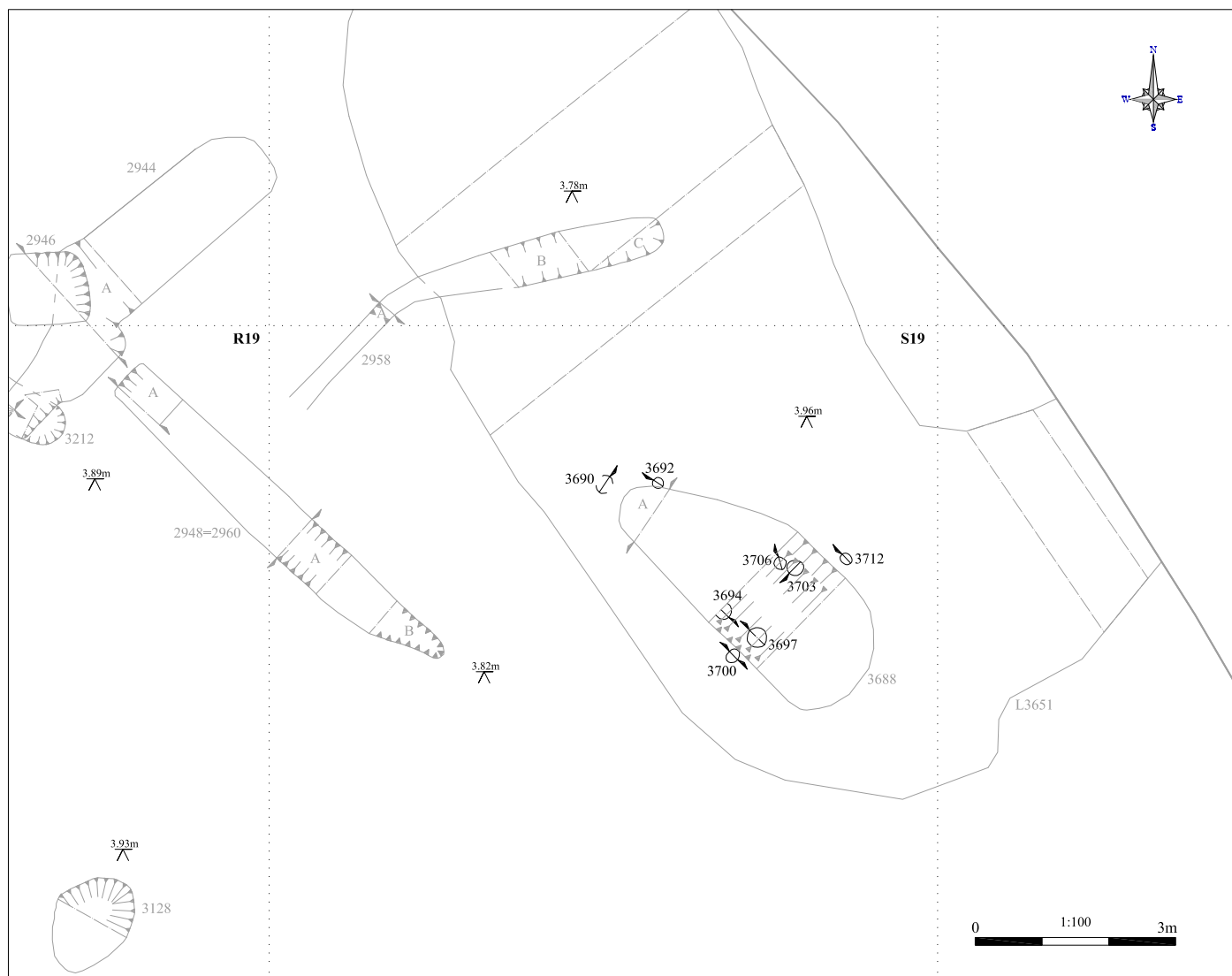


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Fig. 42 Detailed plans and sections
 Scale 1:100 and 1:20 at A4

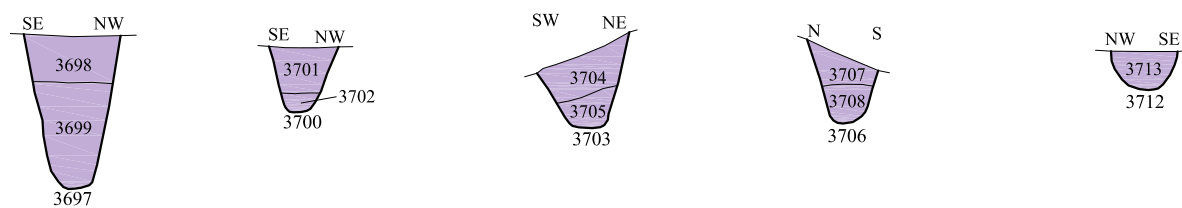
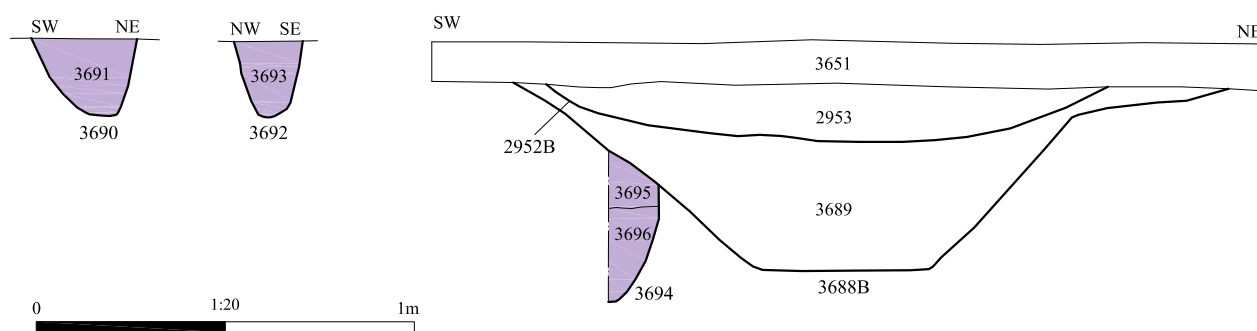


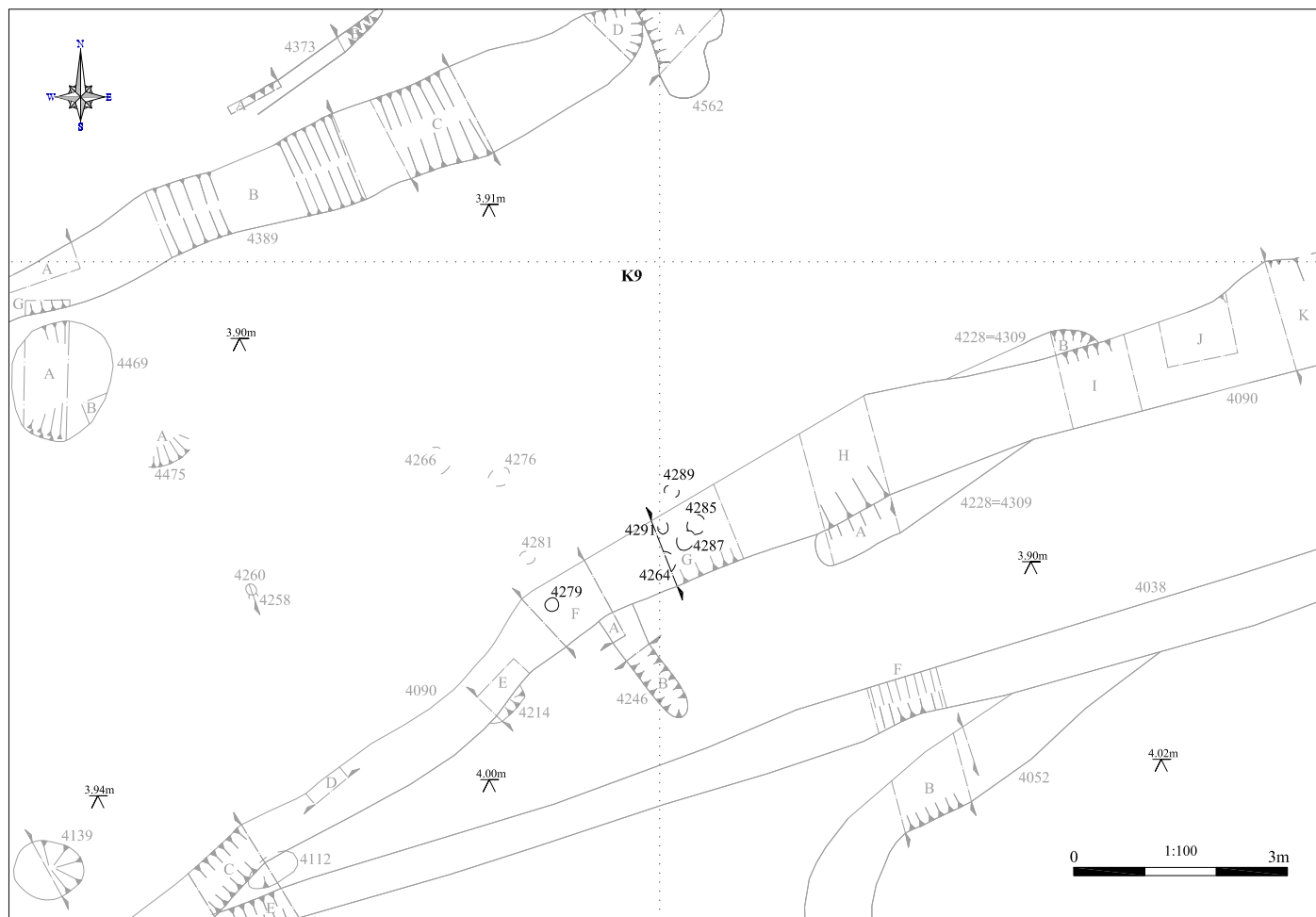
Possible Roman Sub-Phase 2 pit cluster (2/2)



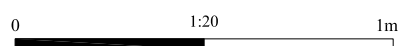
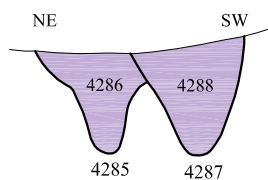
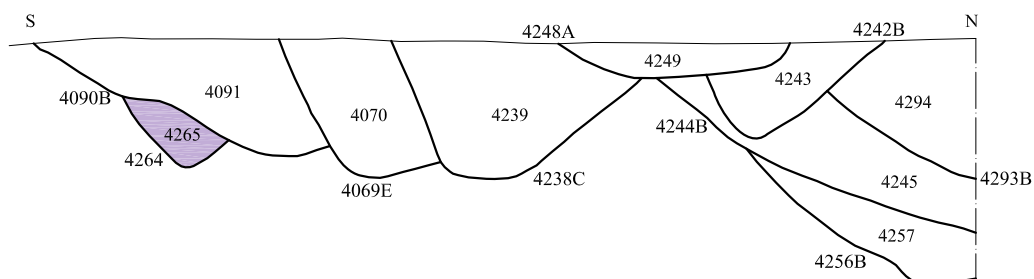


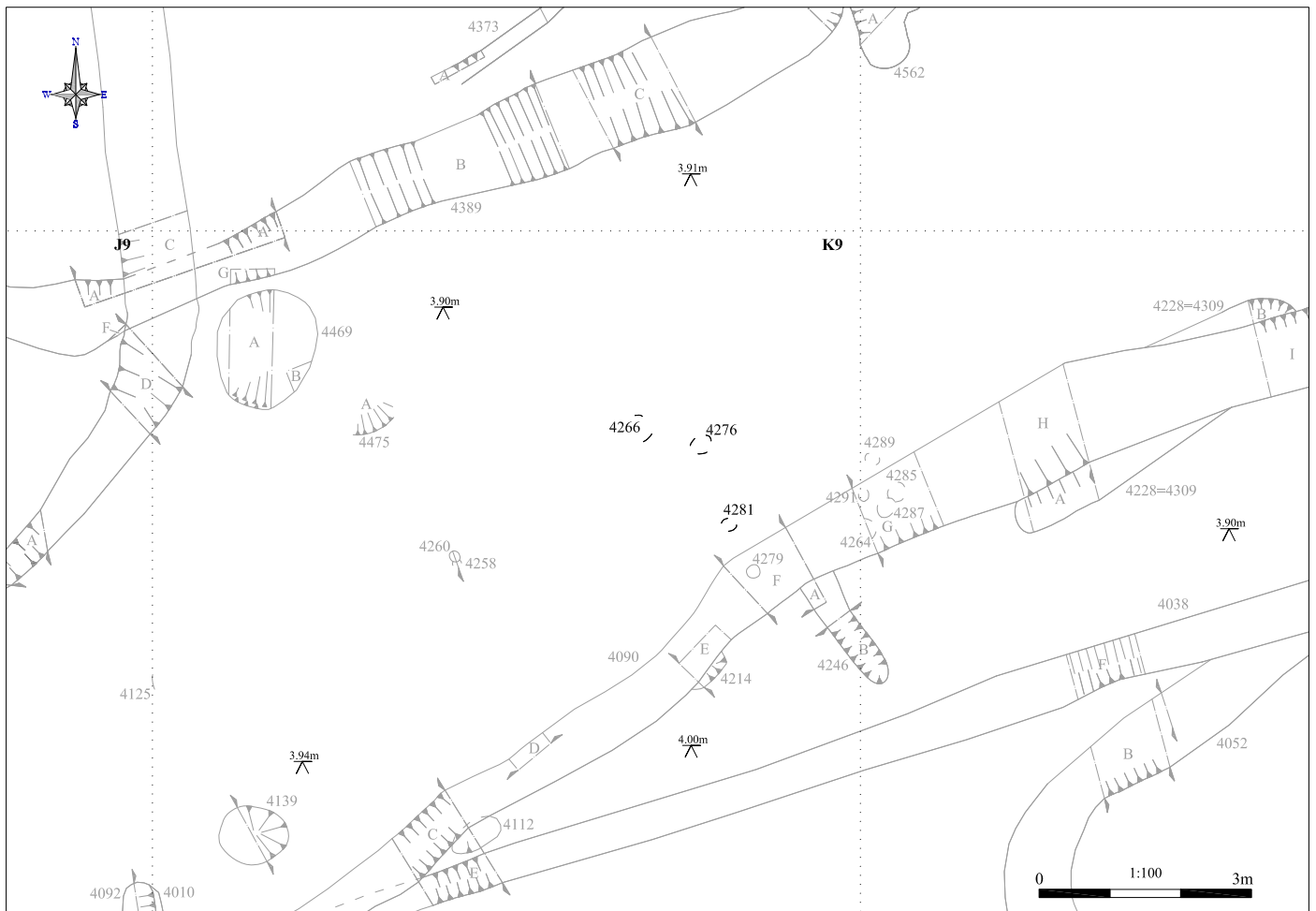
Roman Sub-Phase 2 posthole cluster (2/4)



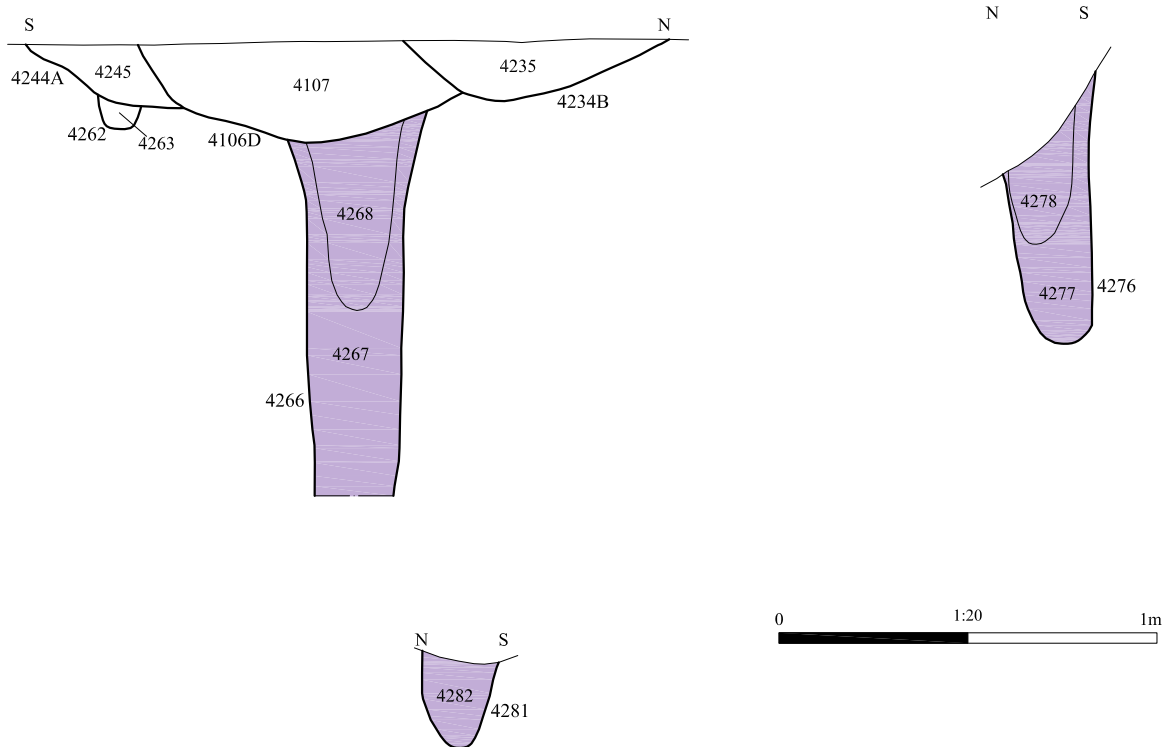


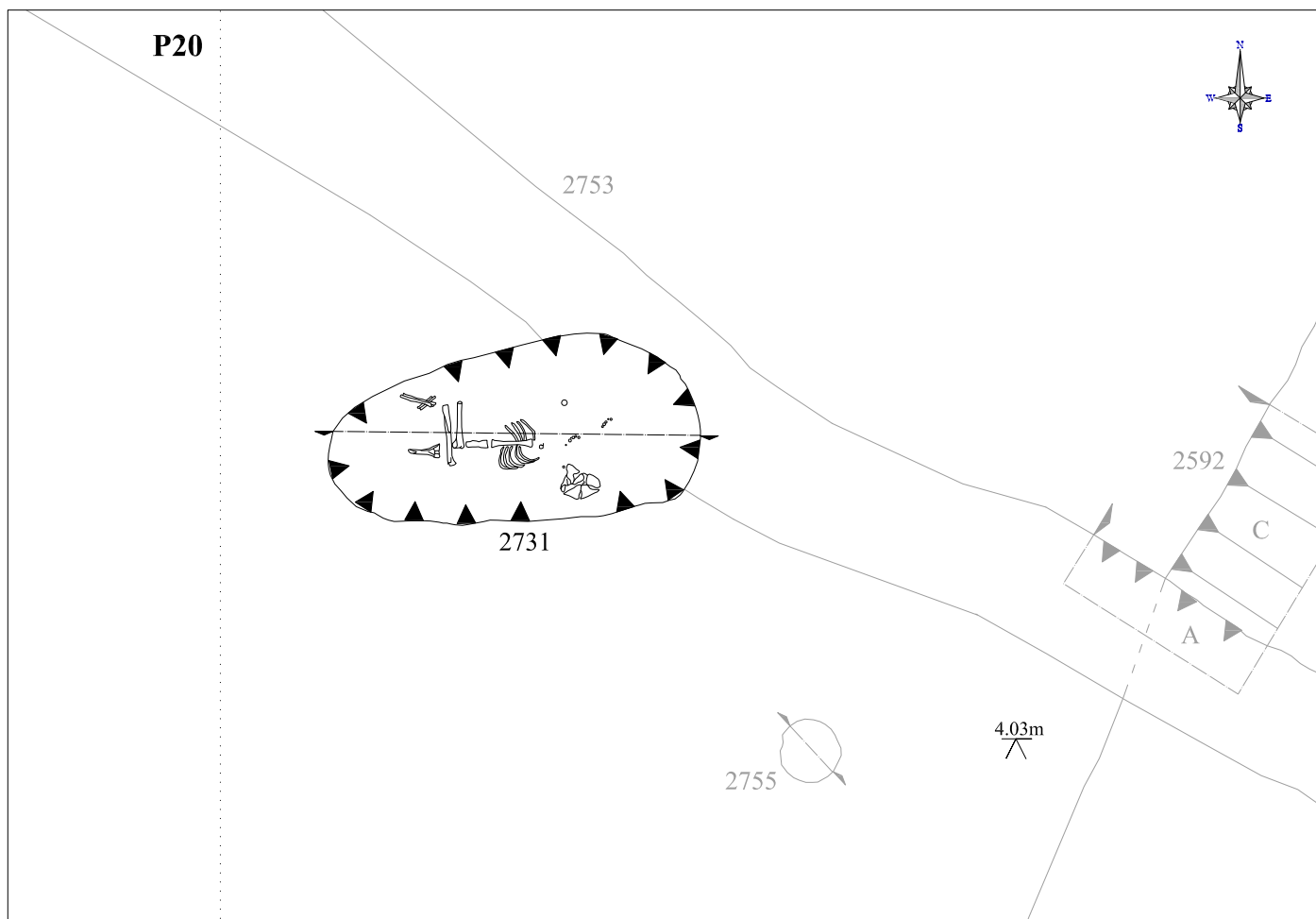
Roman Sub-Phase 2 posthole cluster (3/4)



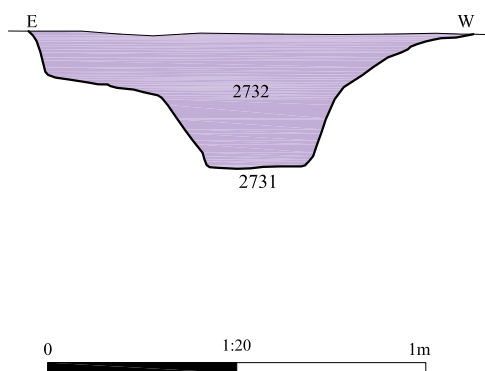


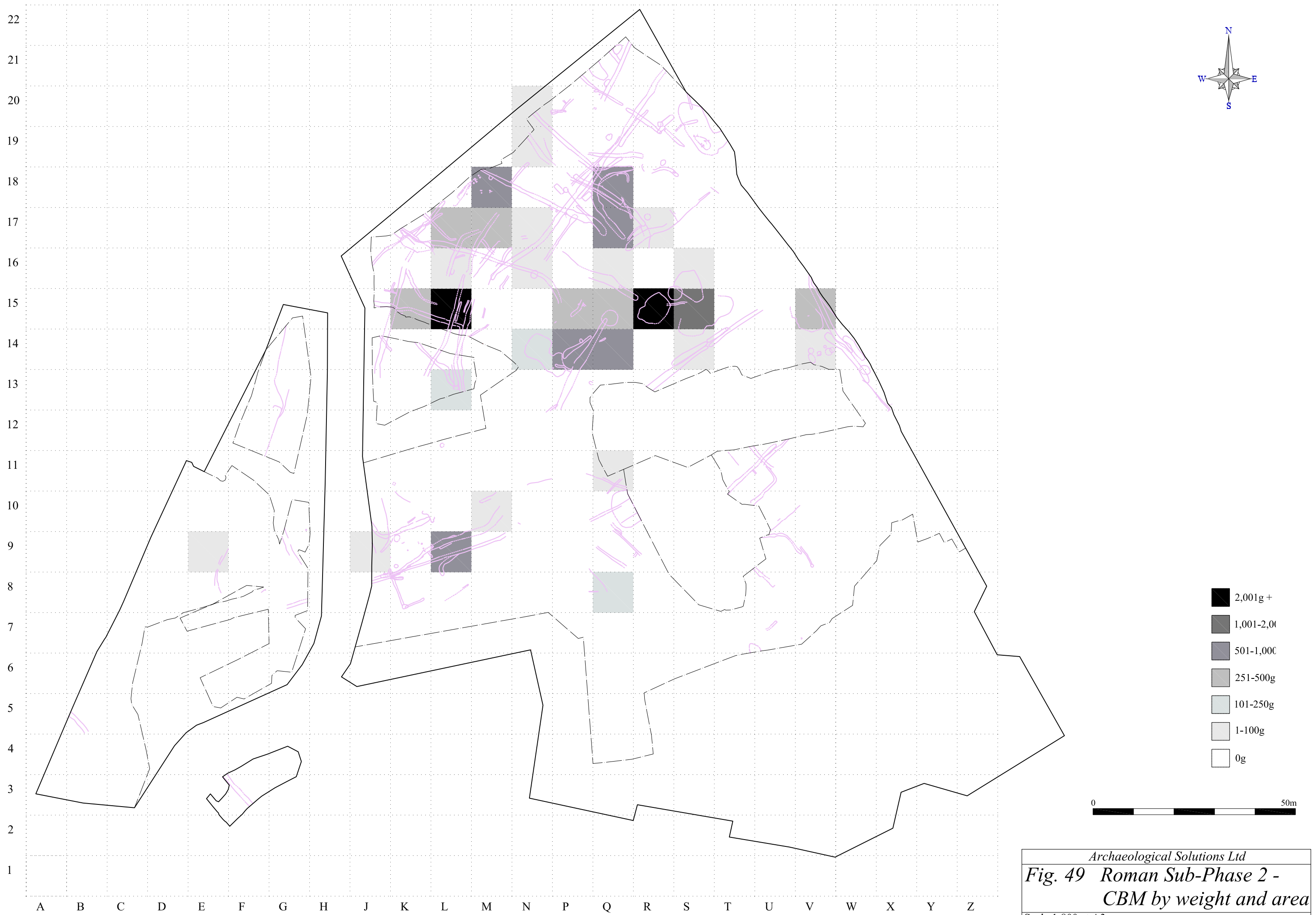
Roman Sub-Phase 2 posthole cluster (4/4)

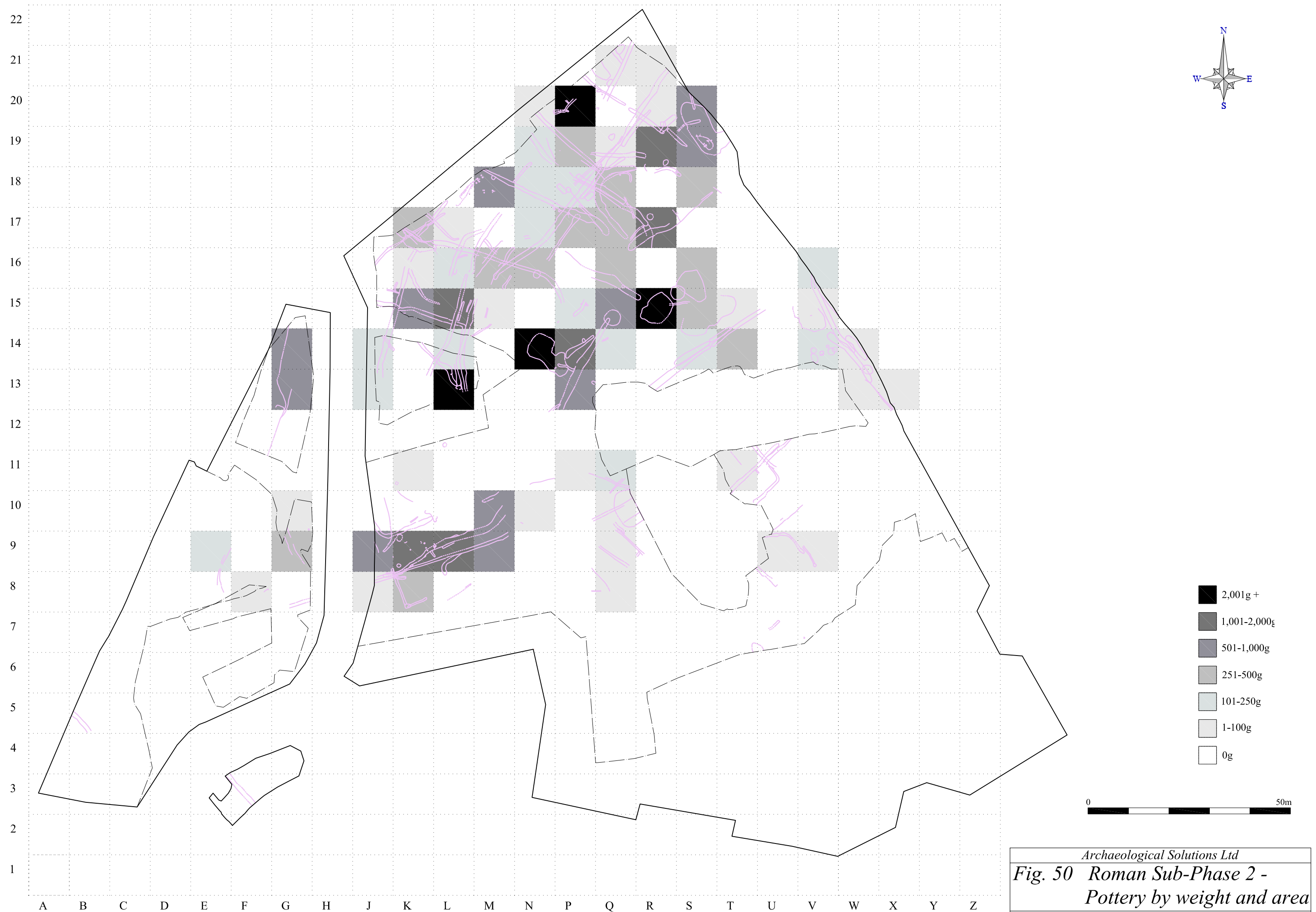




Roman Sub-Phase 2 Grave Cut F2731 (SK8)



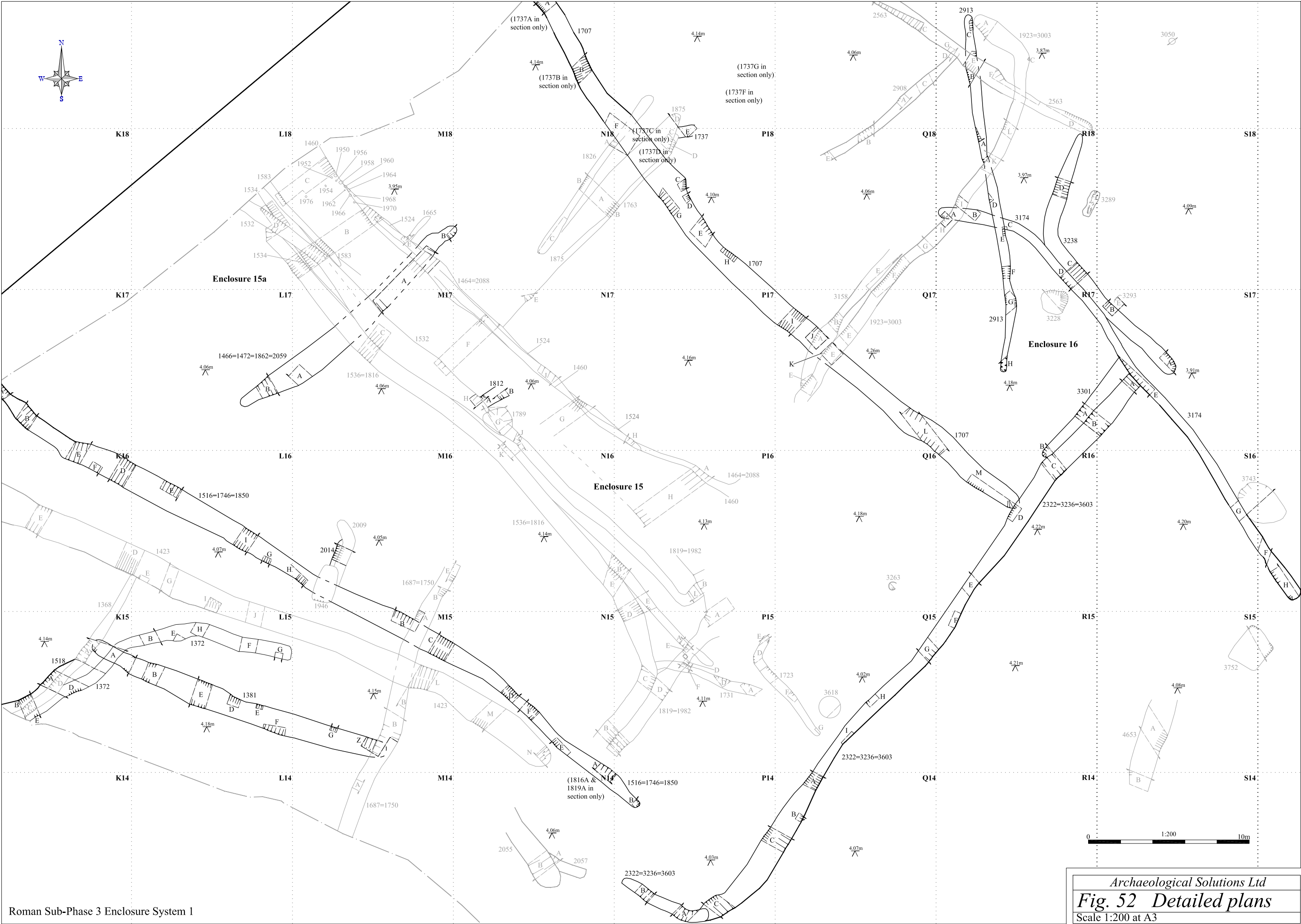




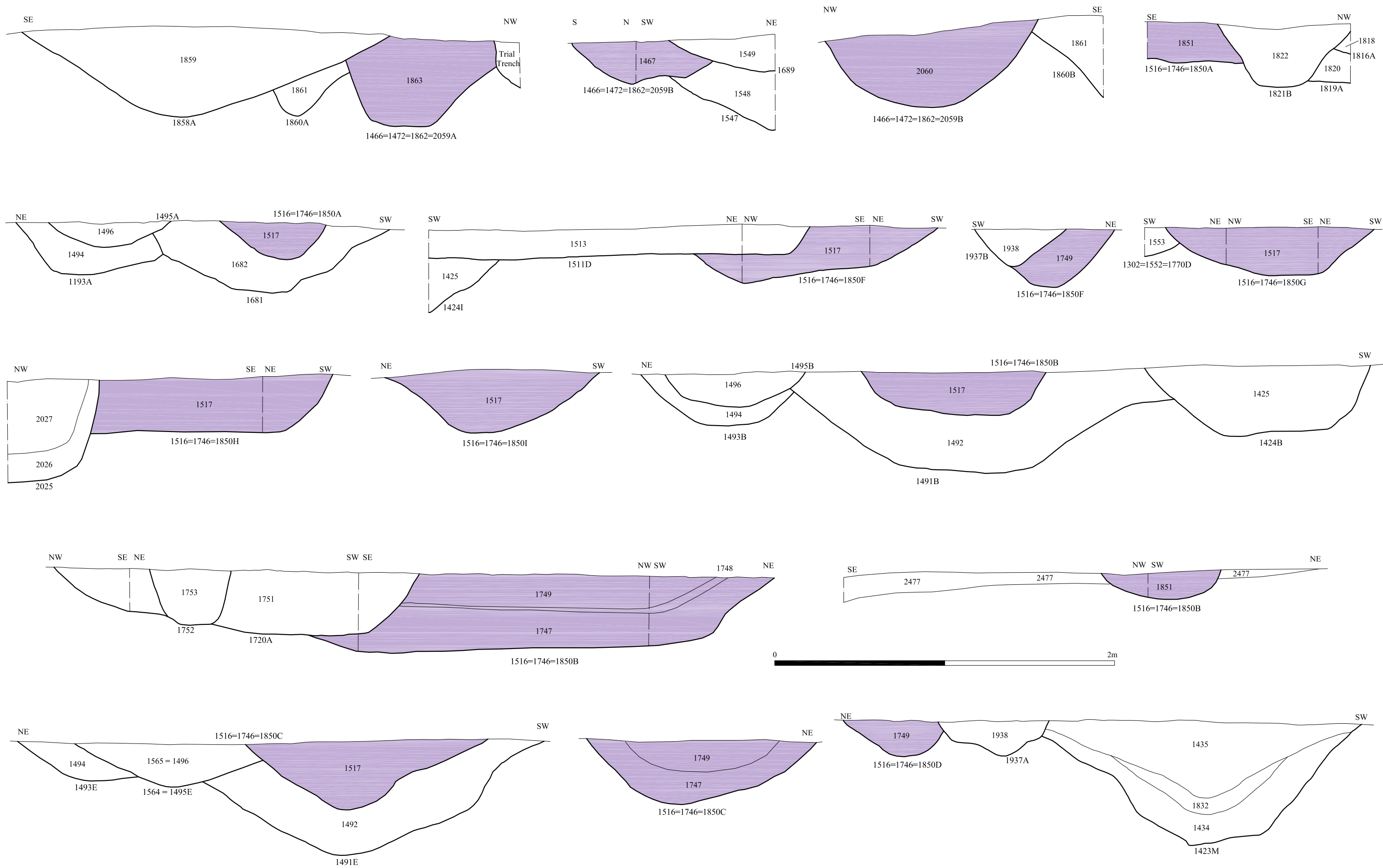
Archaeological Solutions Ltd
Fig. 50 Roman Sub-Phase 2 - Pottery by weight and area
Scale 1:800 at A3

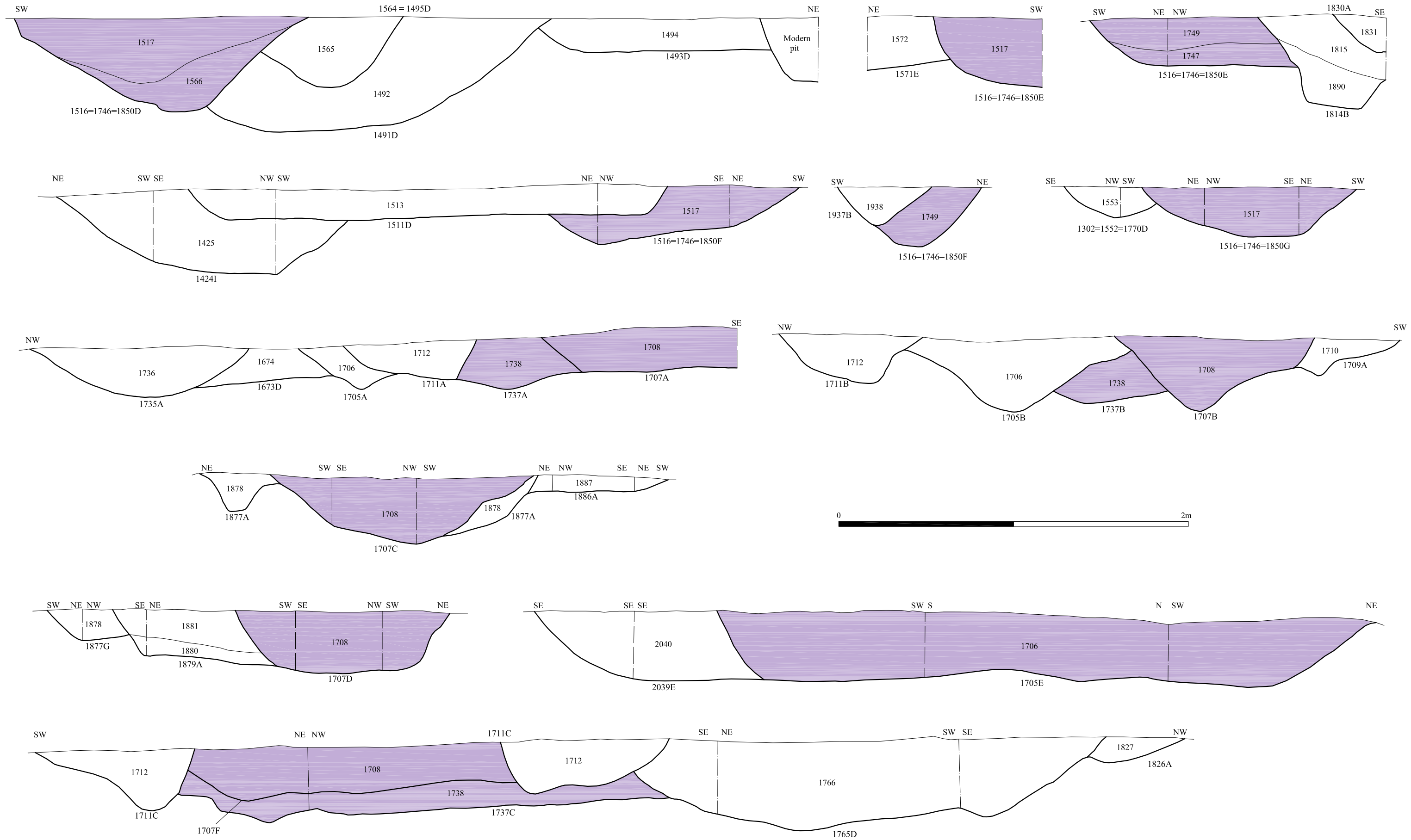


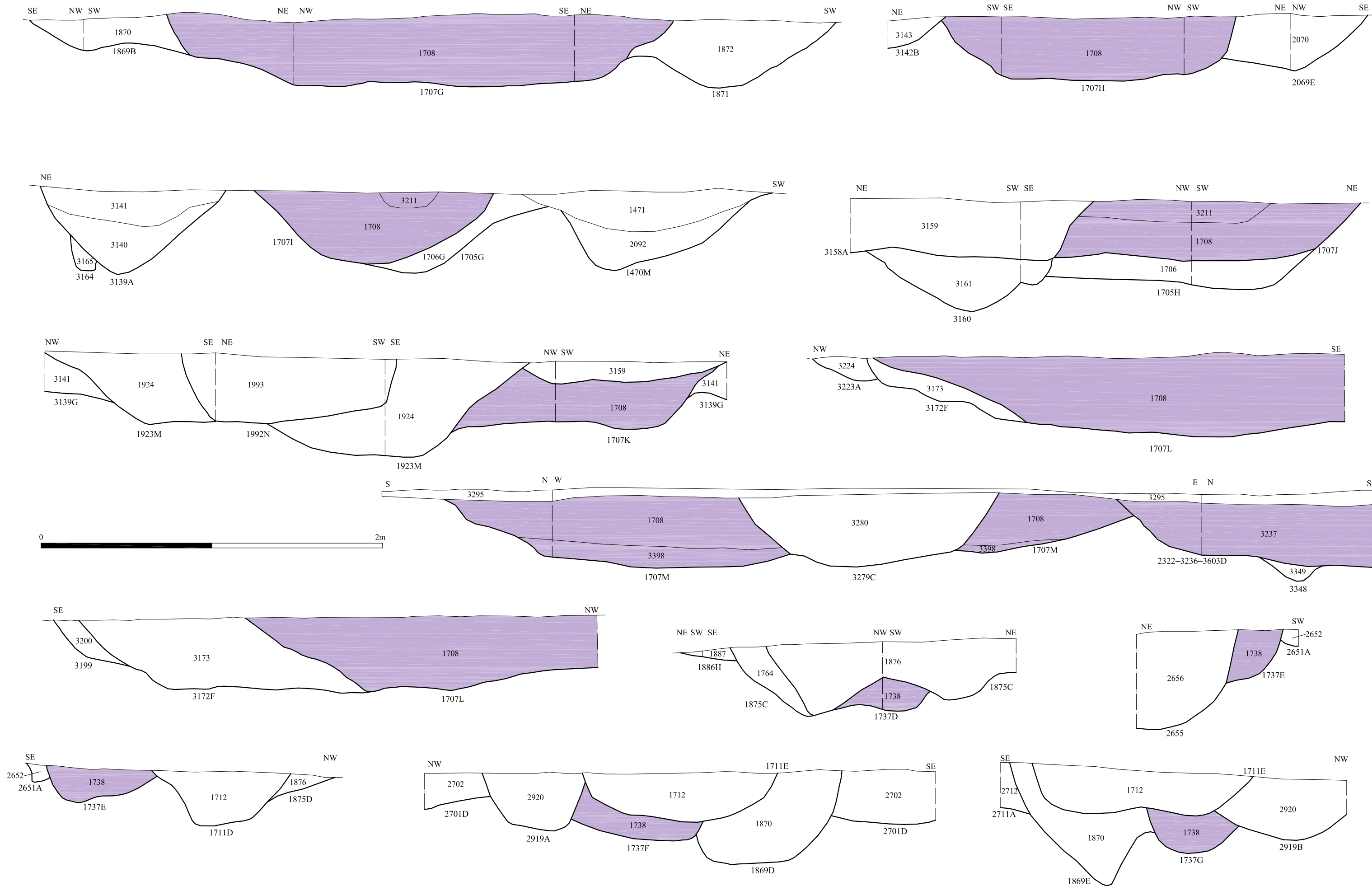
Archaeological Solutions Ltd
Fig. 51 Roman Sub-Phase 3
Scale 1:800 at A3



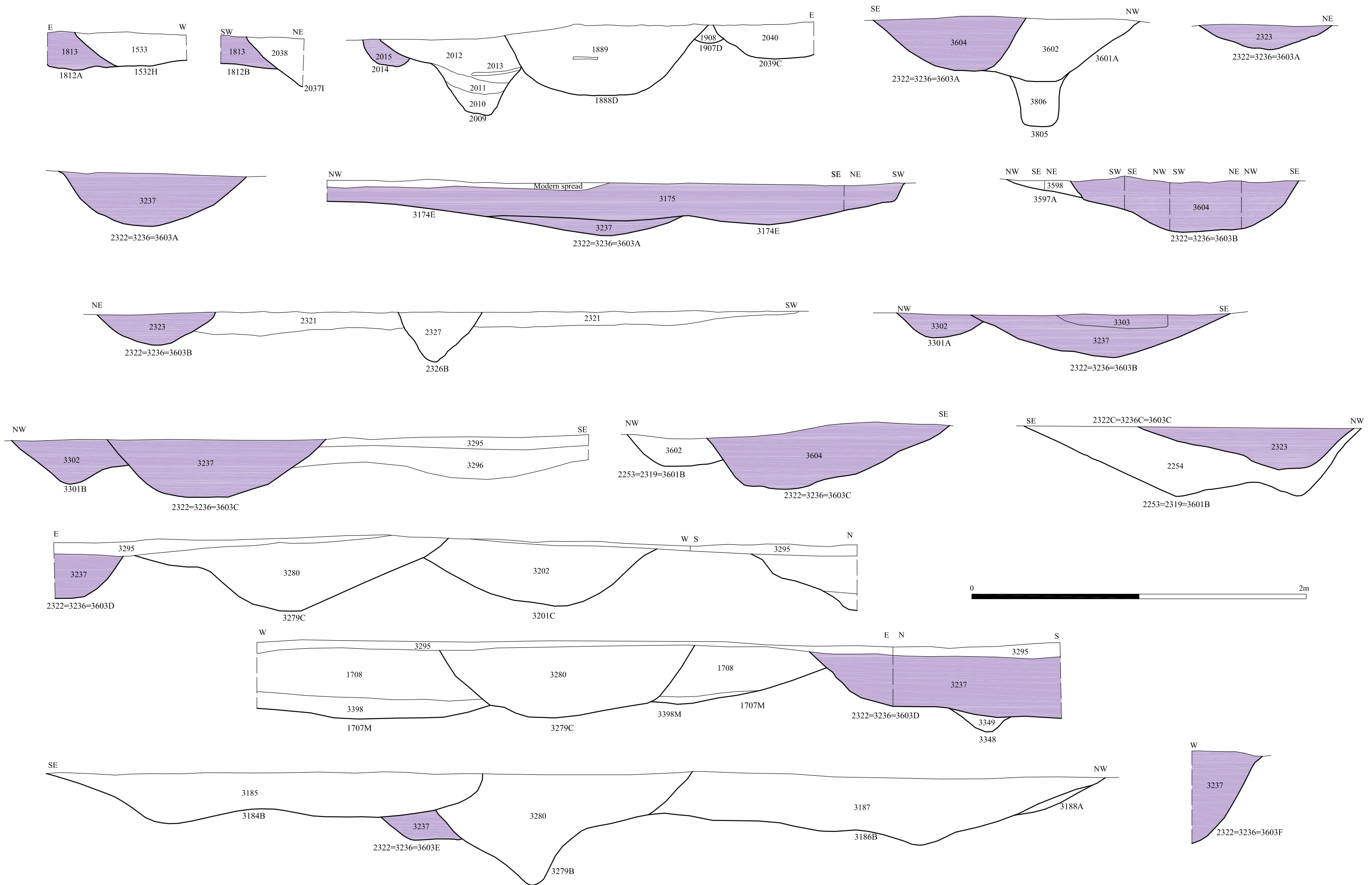
Roman Sub-Phase 3 Enclosure System 1



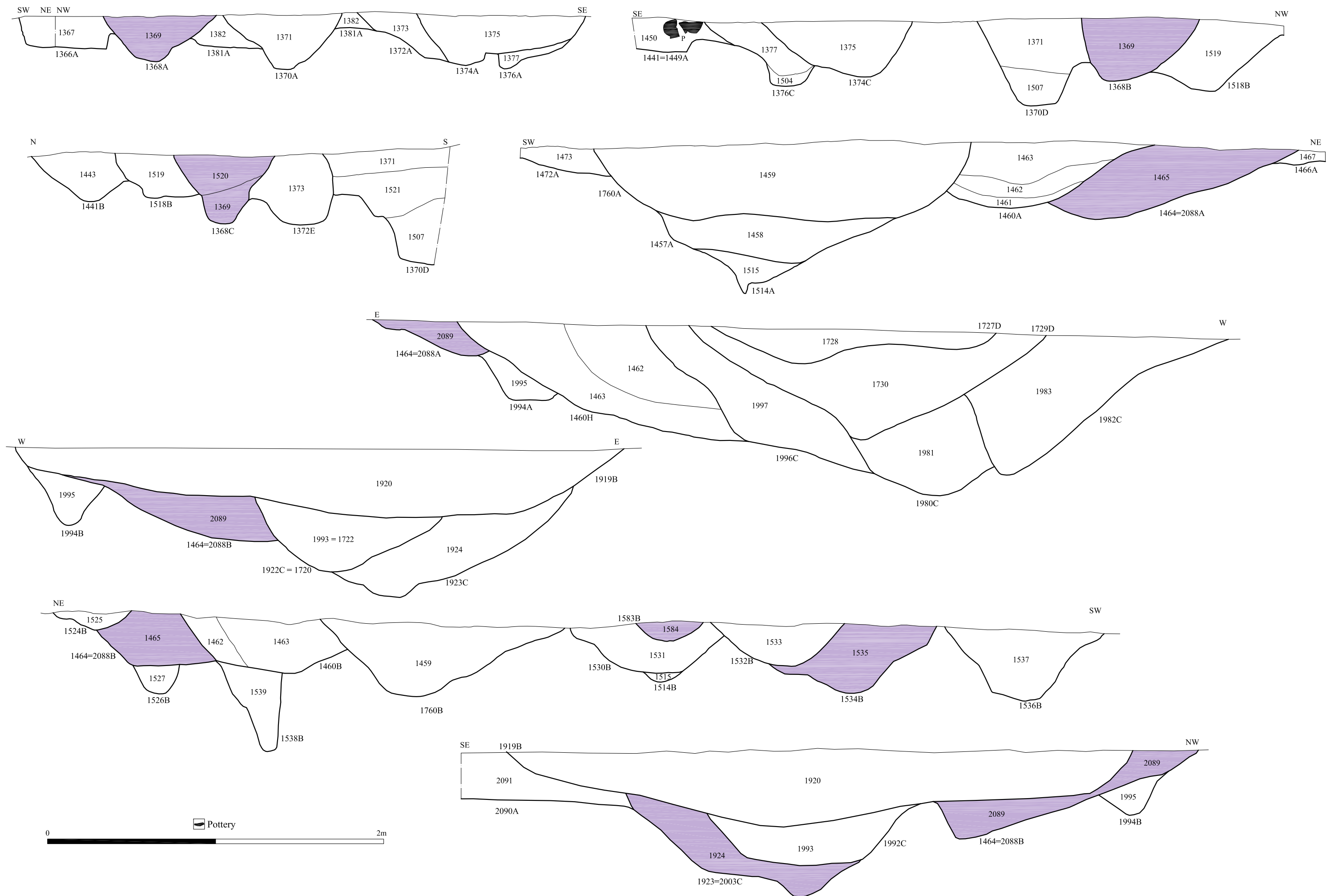




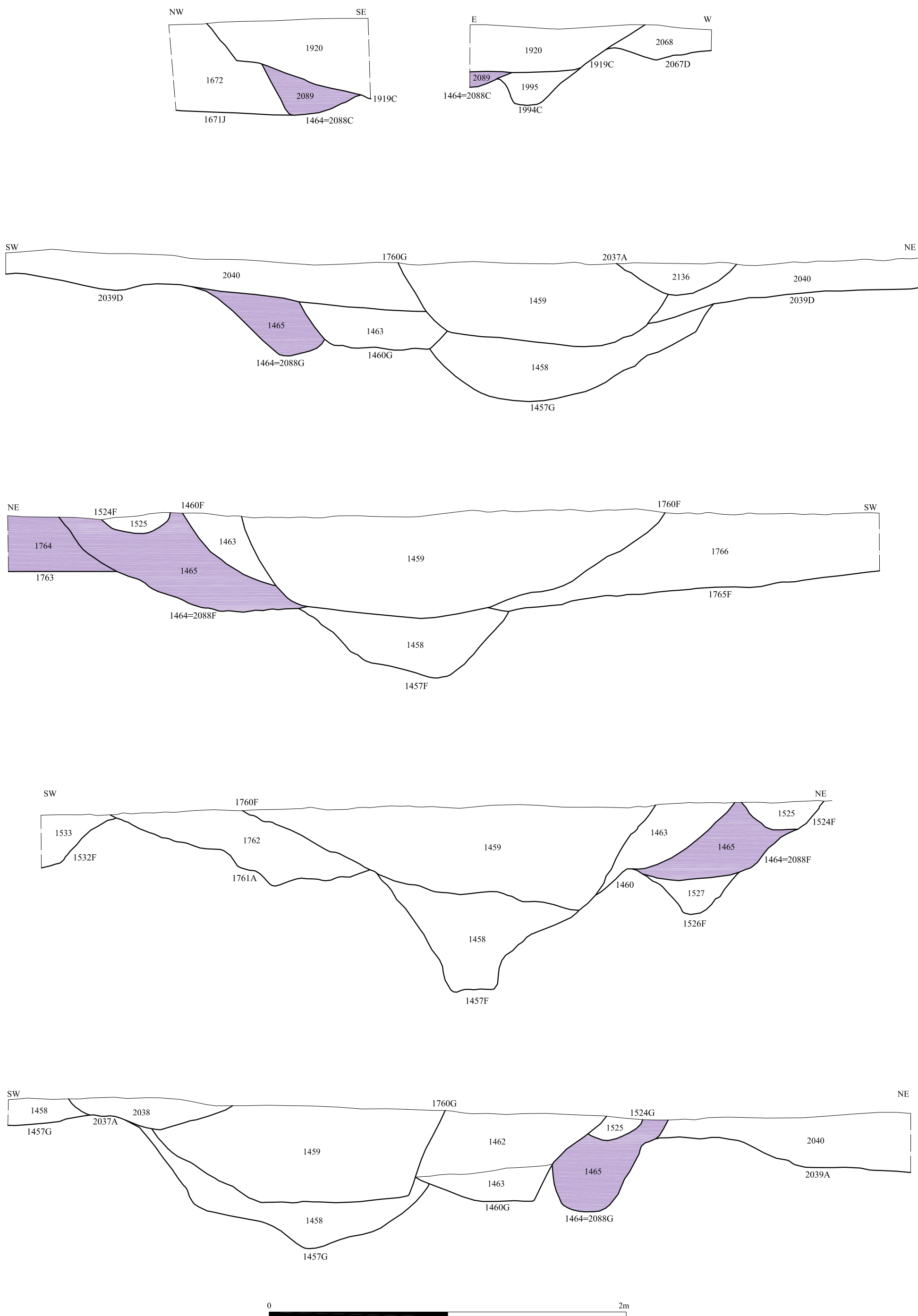
Archaeological Solutions Ltd
Fig. 56 Sections
 Scale 1:20 at A3



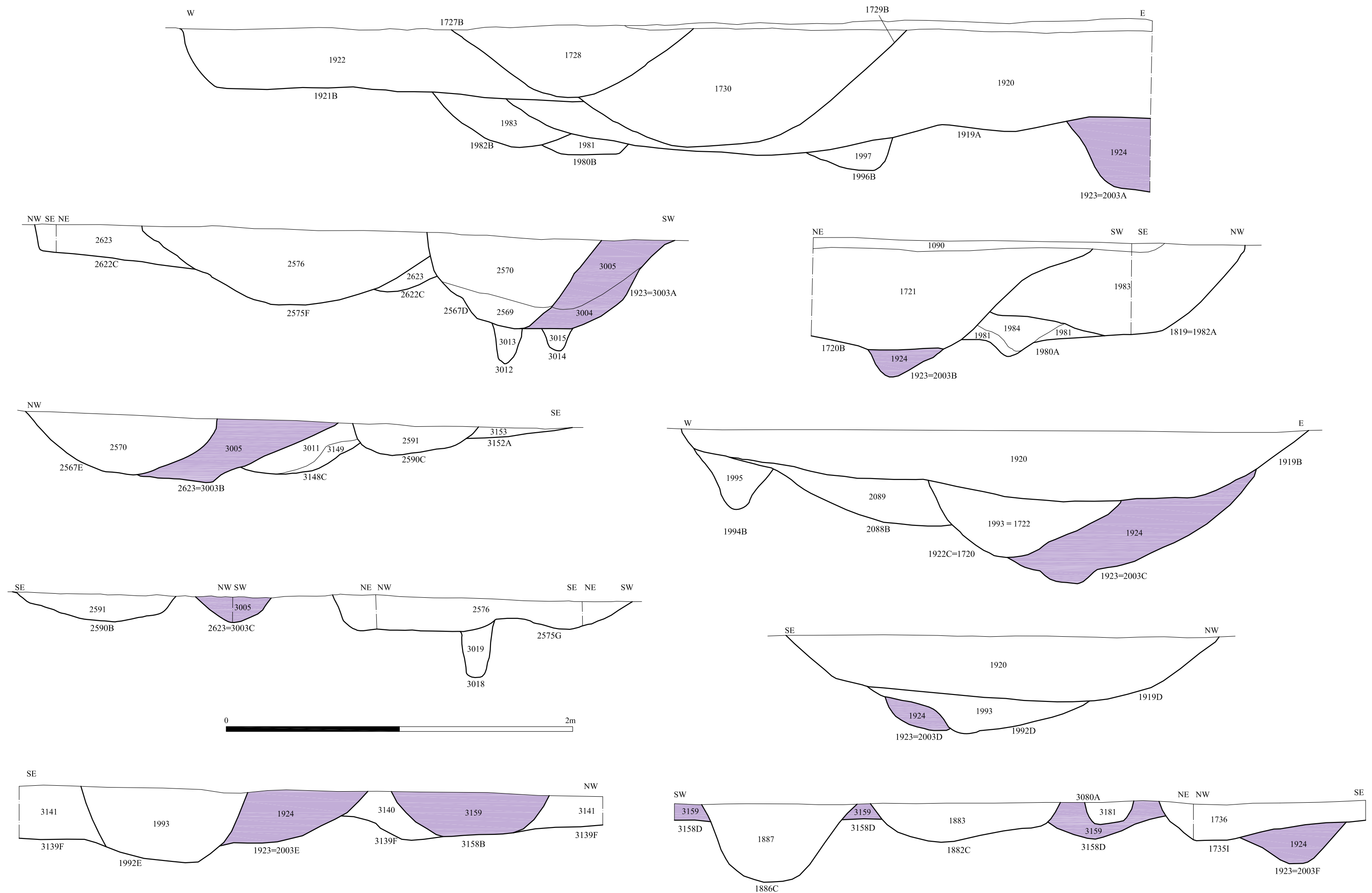
Archaeological Solutions Ltd
Fig. 57 Sections
 Scale 1:20 at A3



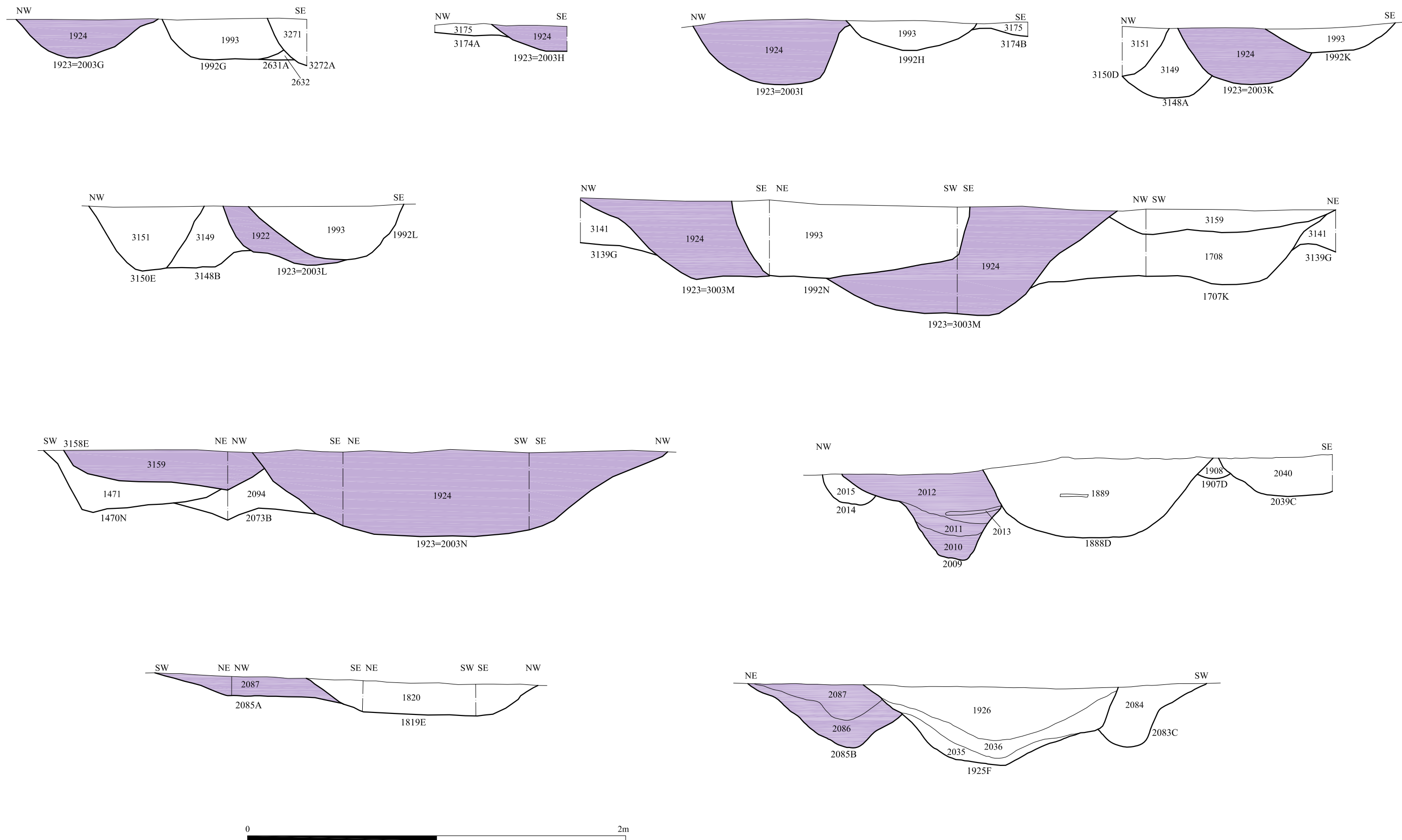
Archaeological Solutions Ltd
Fig. 60 Sections
 Scale 1:20 at A3

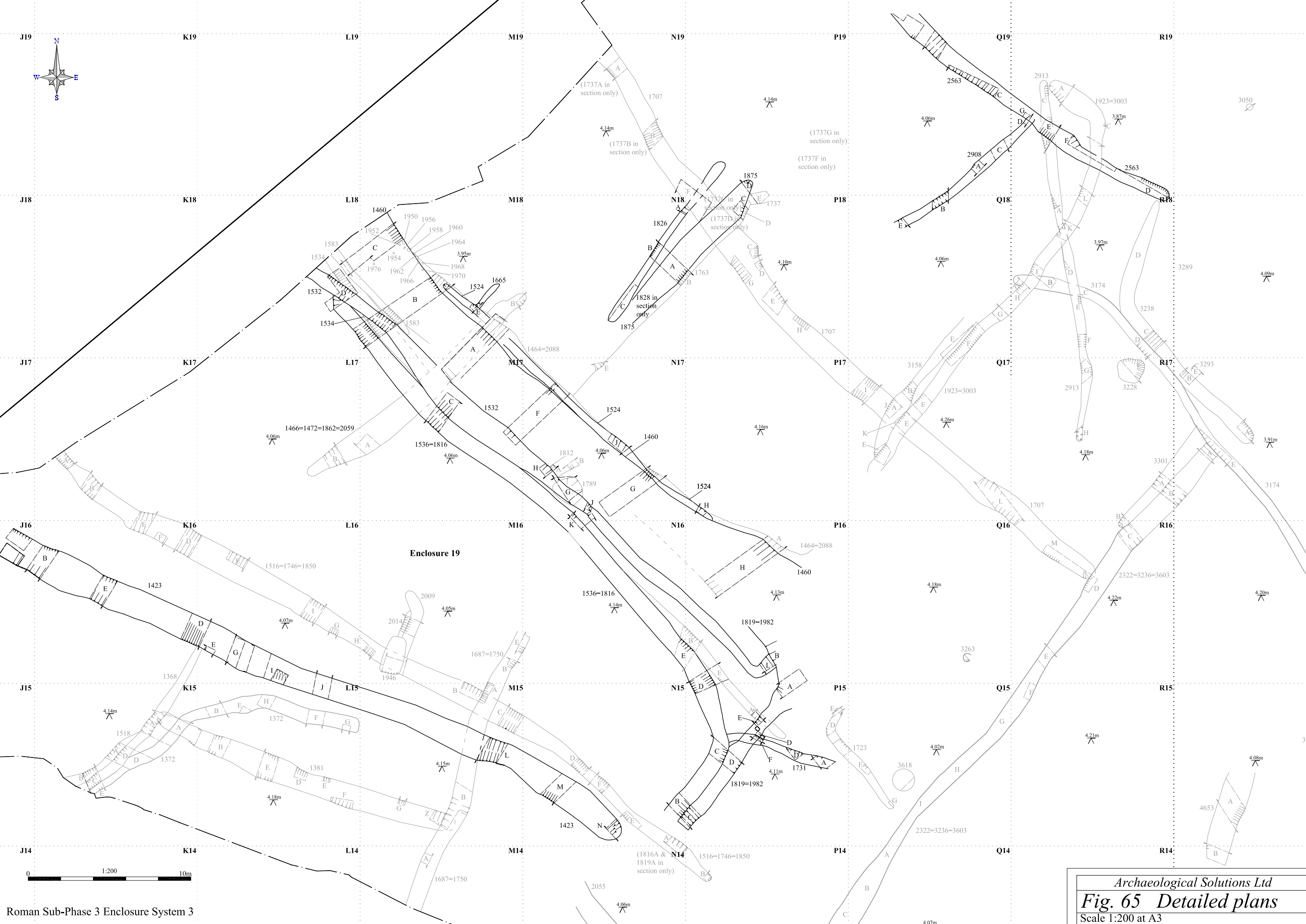


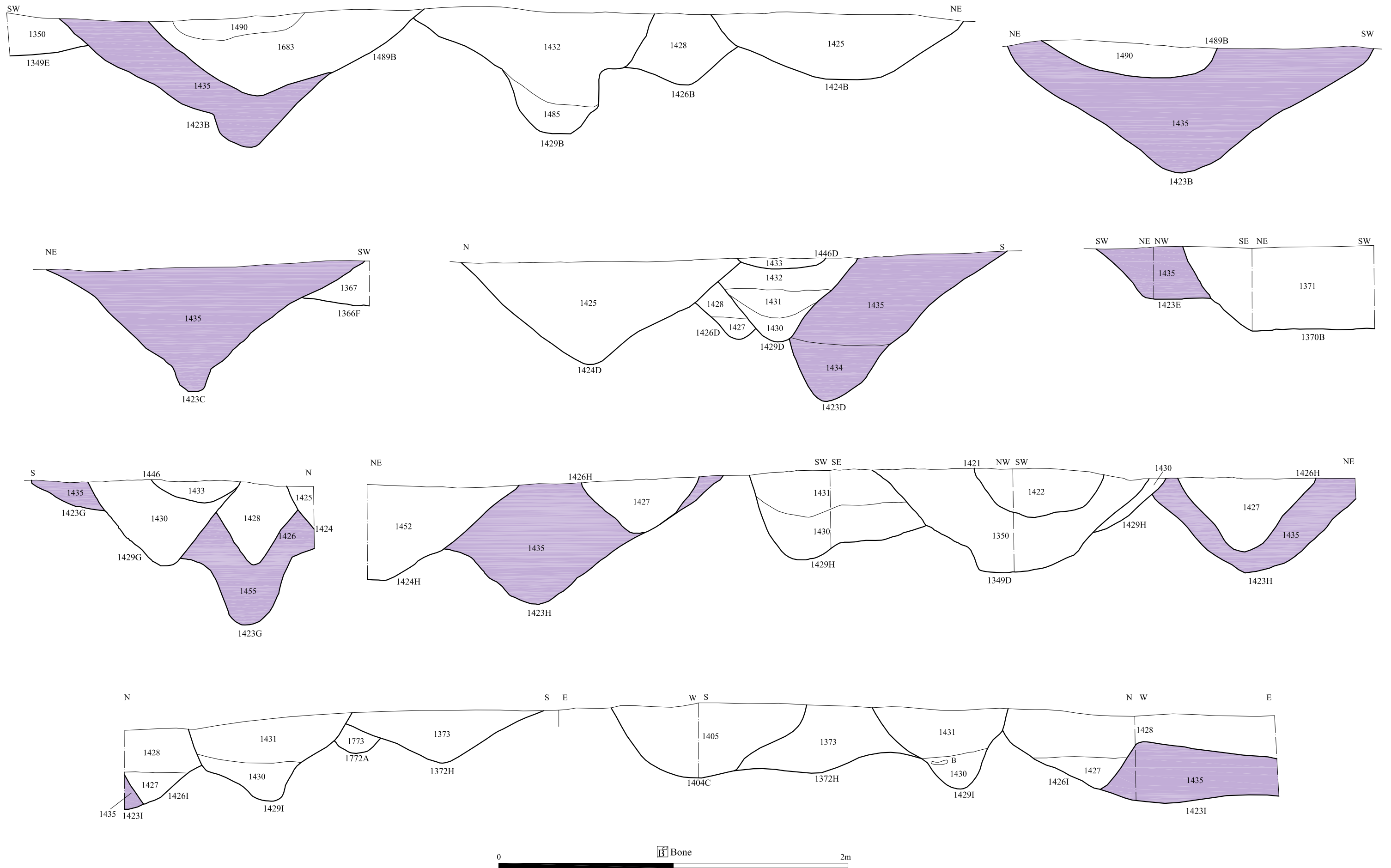
Archaeological Solutions Ltd
Fig. 61 Sections
Scale 1:20 at A3



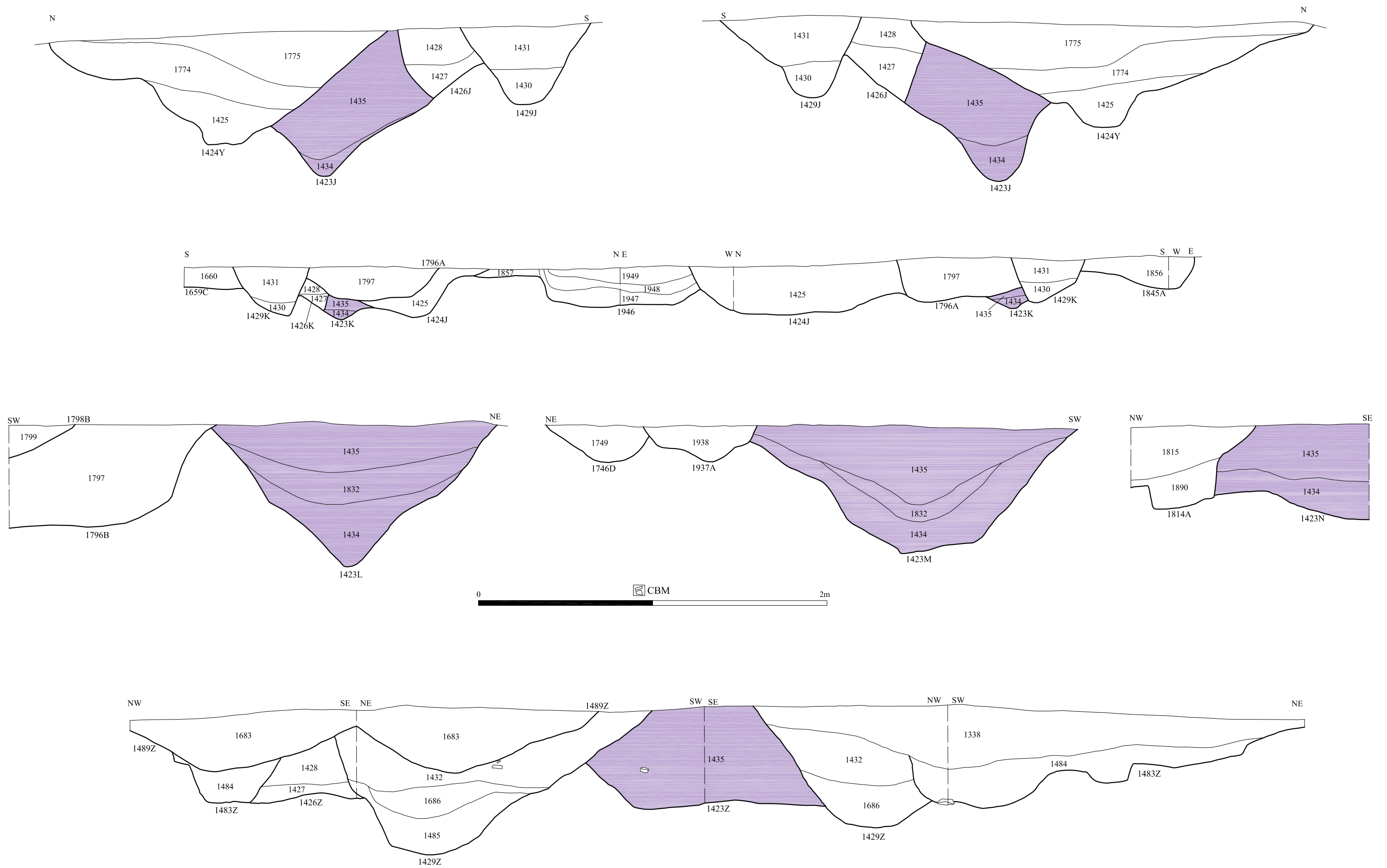
Archaeological Solutions Ltd
Fig. 63 Sections
 Scale 1:20 at A3



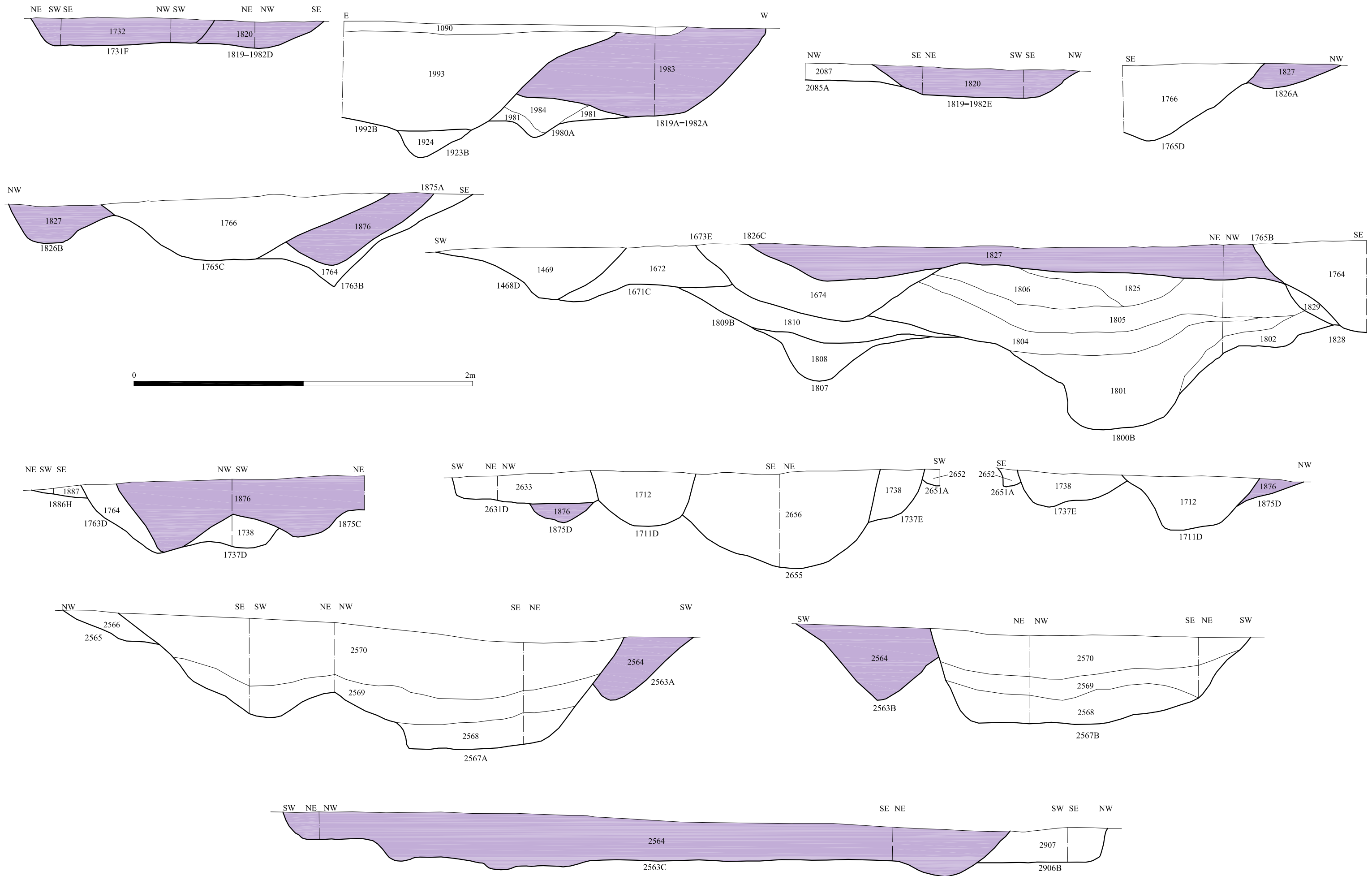




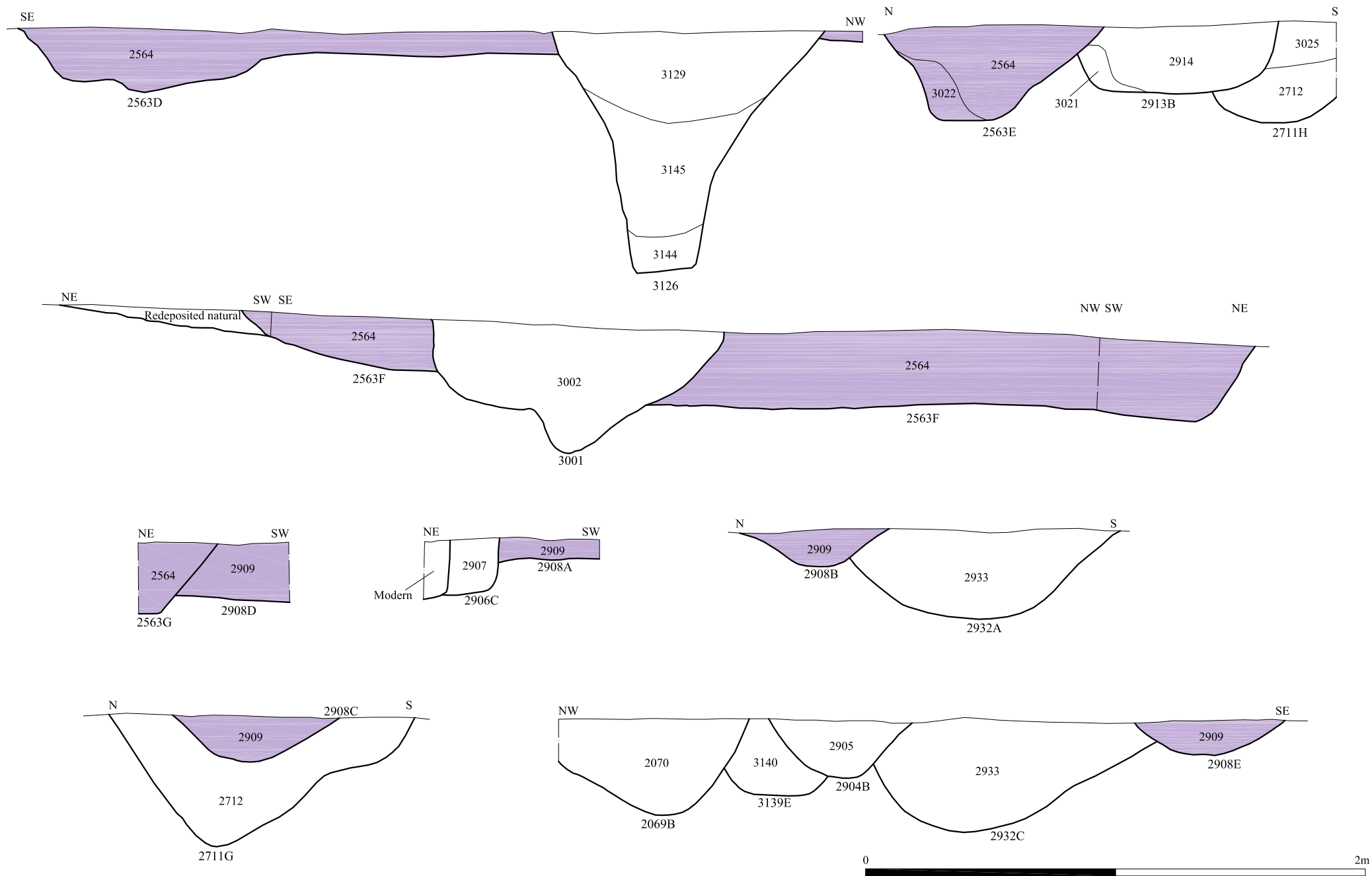
Archaeological Solutions Ltd
Fig. 66 Sections
 Scale 1:20 at A3



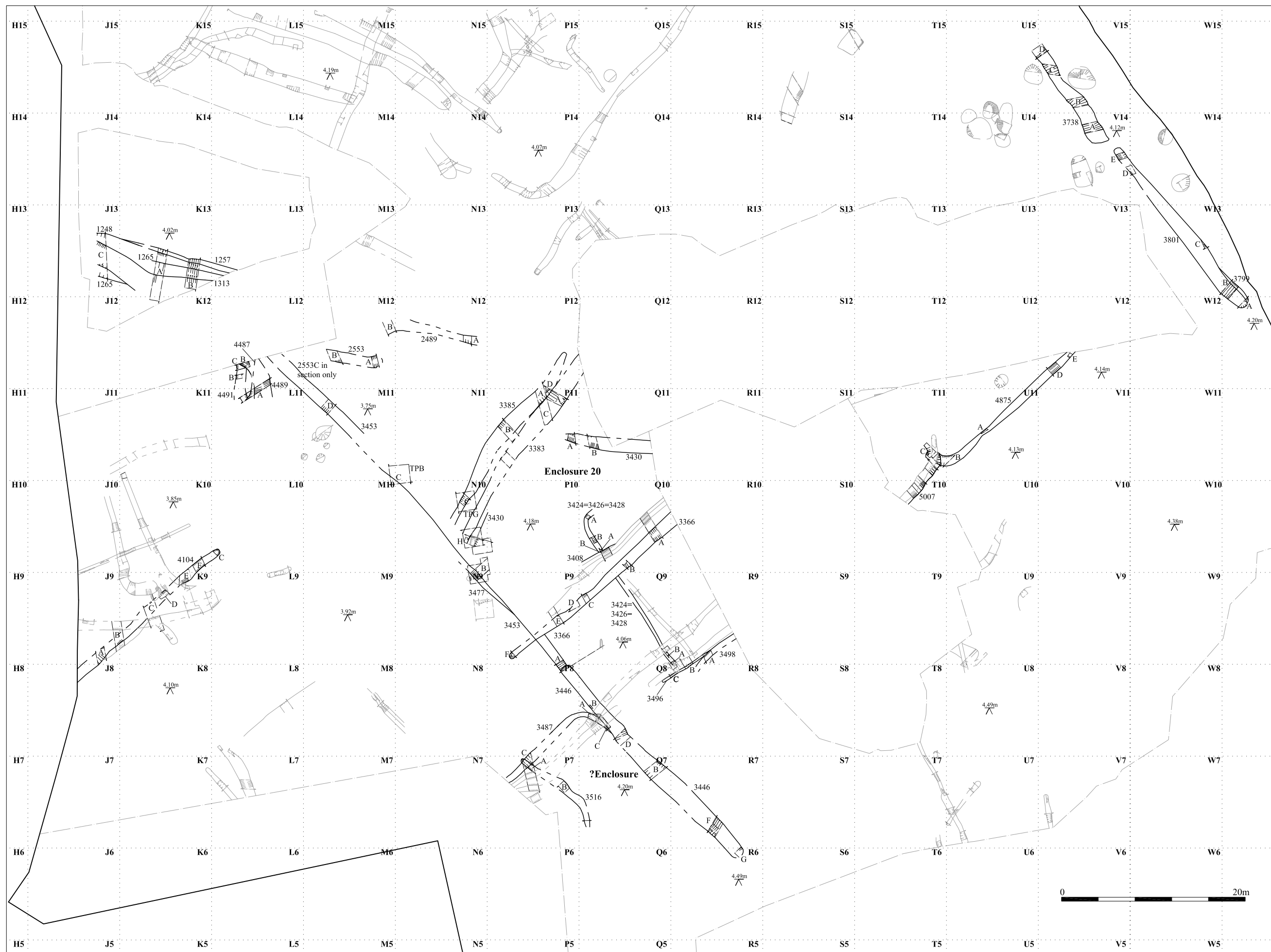
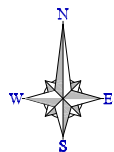
Archaeological Solutions Ltd
Fig. 67 Sections
 Scale 1:20 at A3



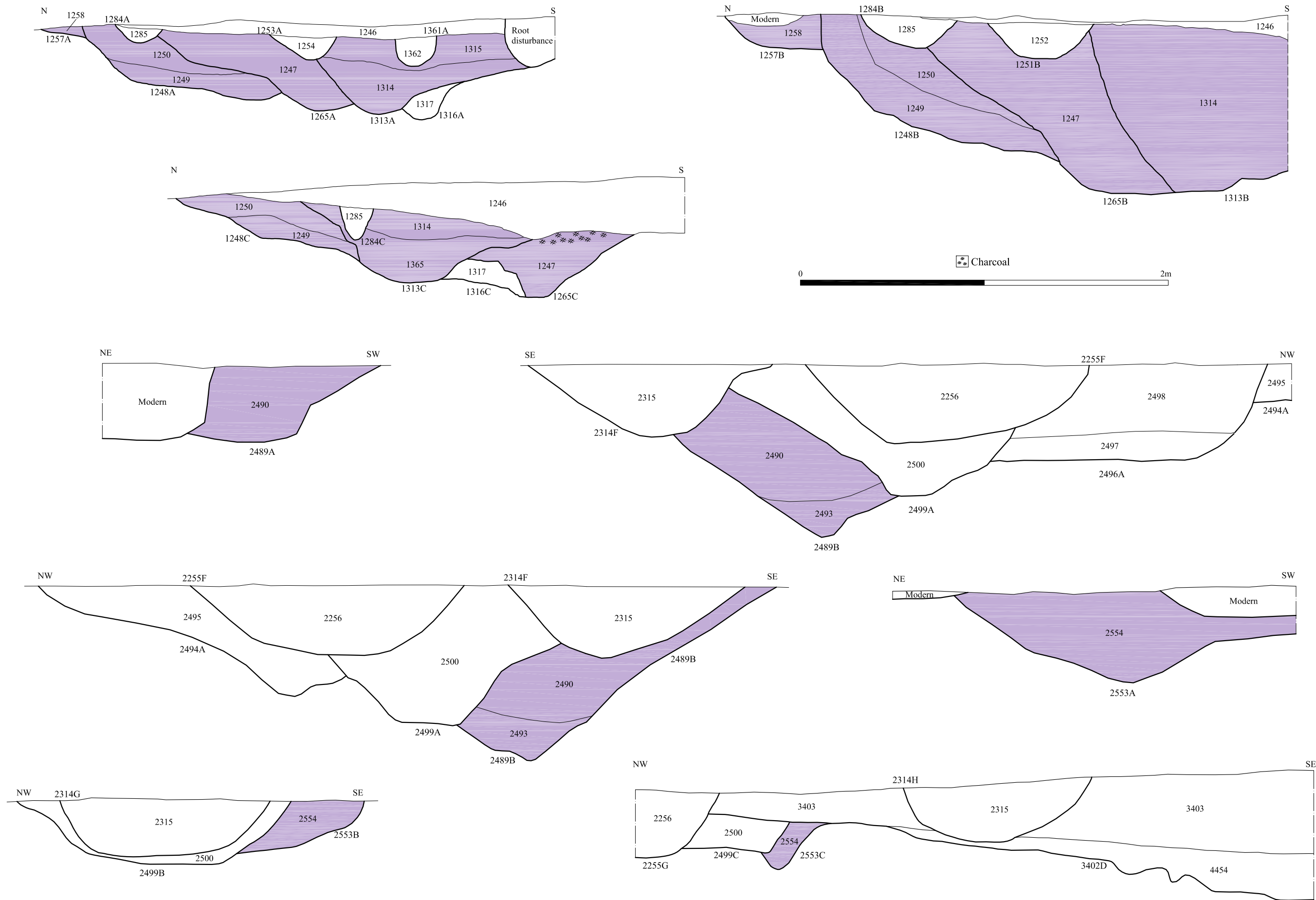
Archaeological Solutions Ltd
Fig. 70 Sections
Scale 1:20 at A3



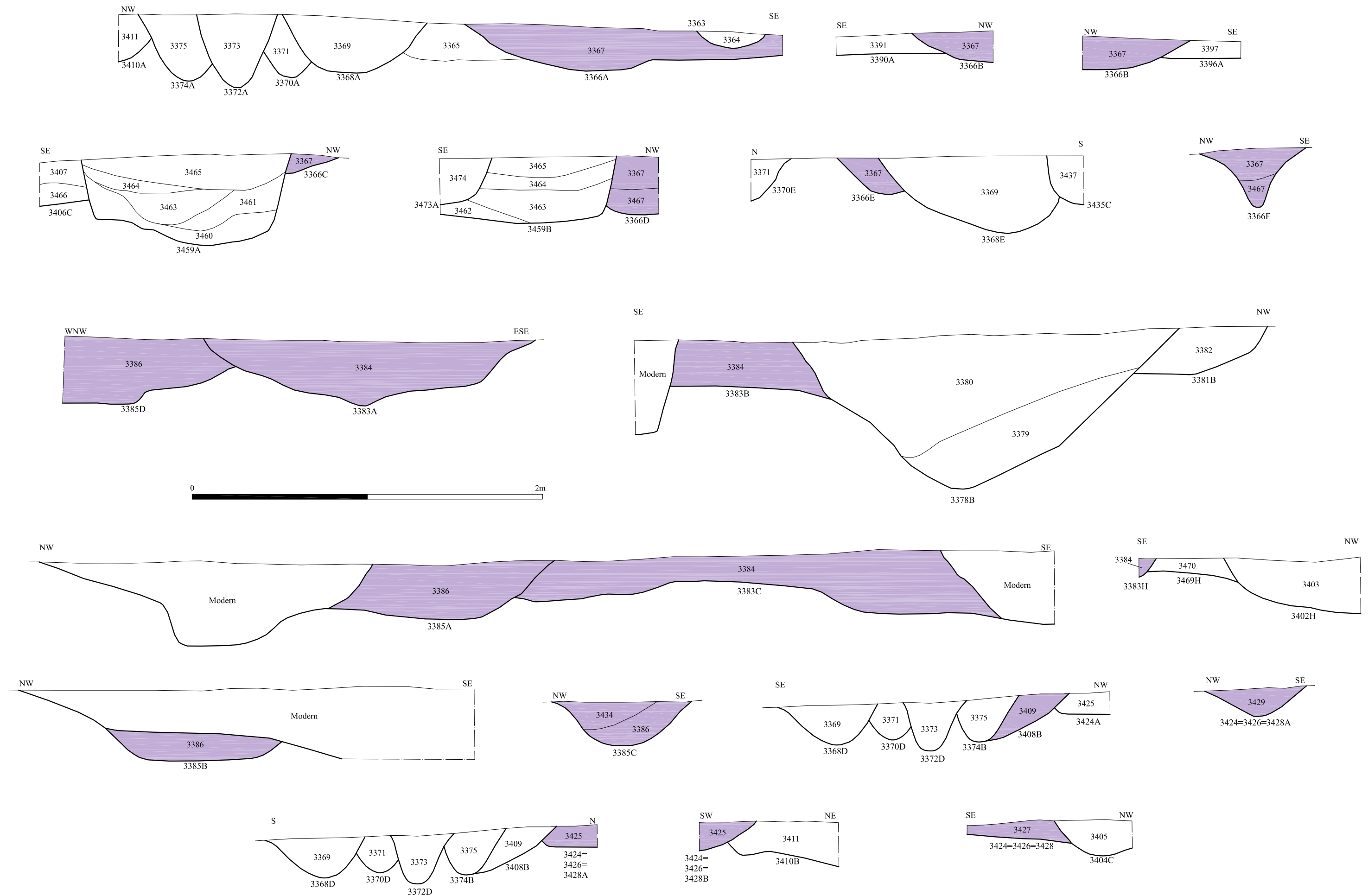
Archaeological Solutions Ltd
Fig. 71 Sections
 Scale 1:20 at A4



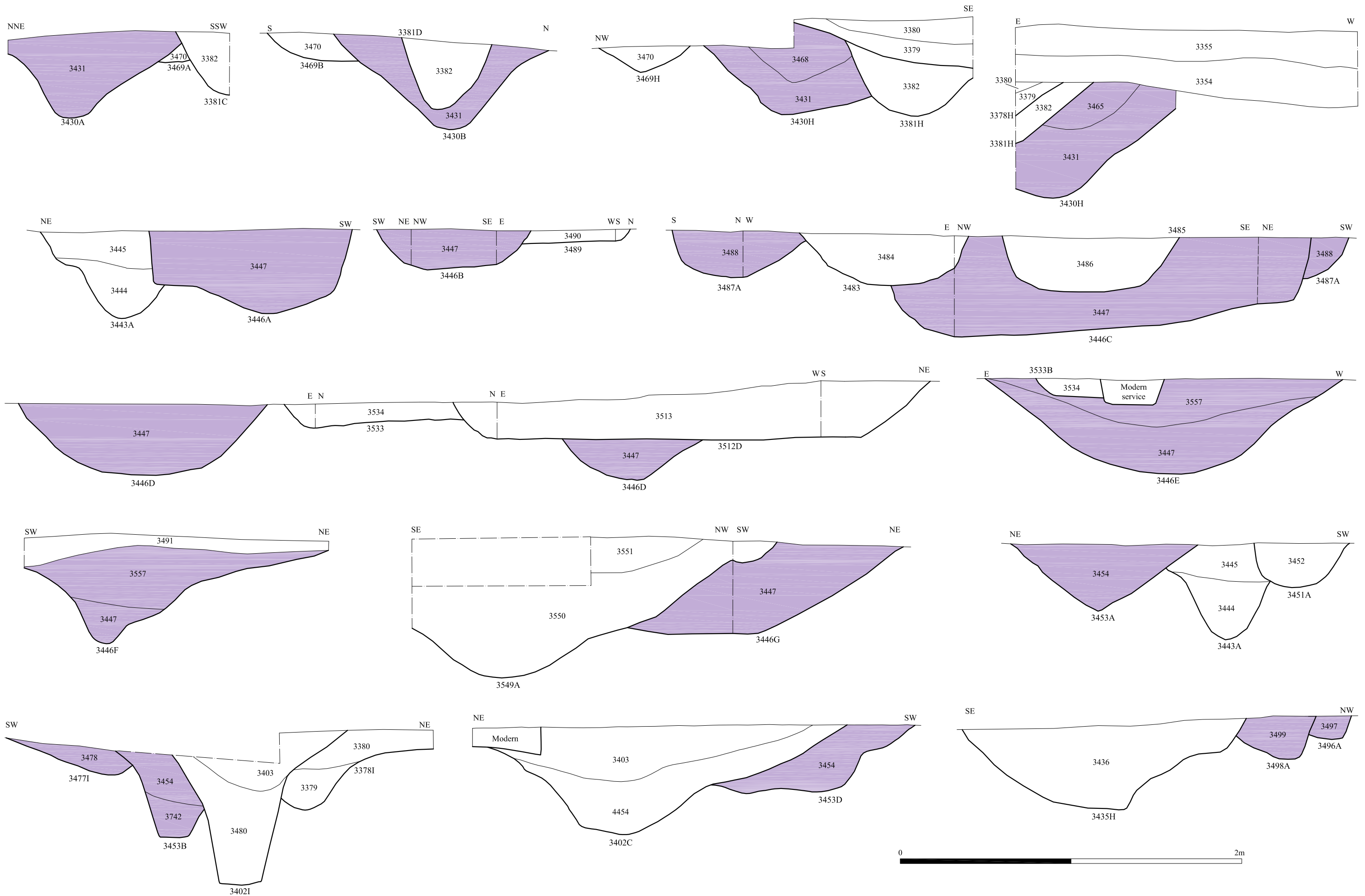
Roman Sub-Phase 3 Enclosure System 4 (principal features)



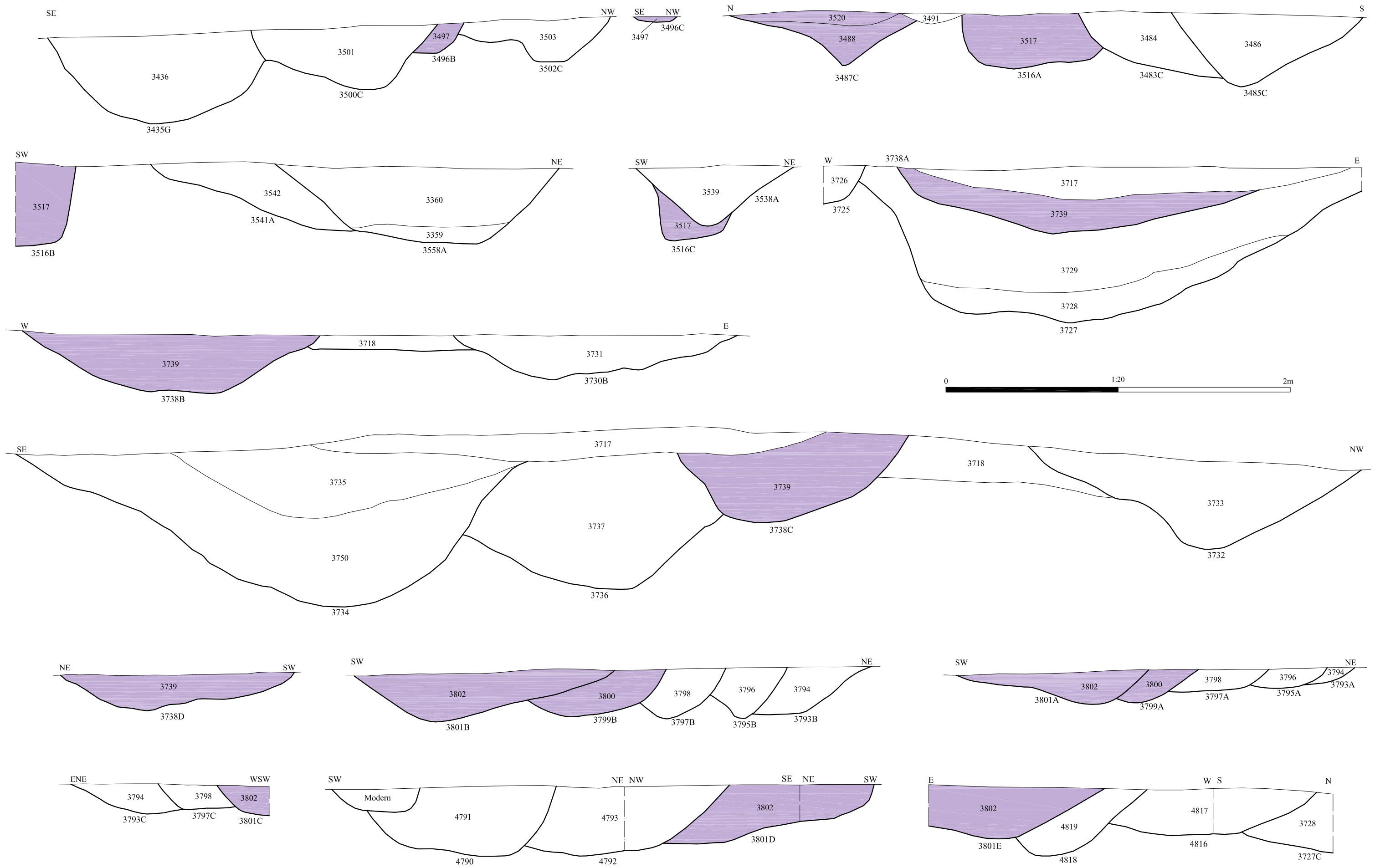
Archaeological Solutions Ltd
Fig. 73 Sections
 Scale 1:20 at A3



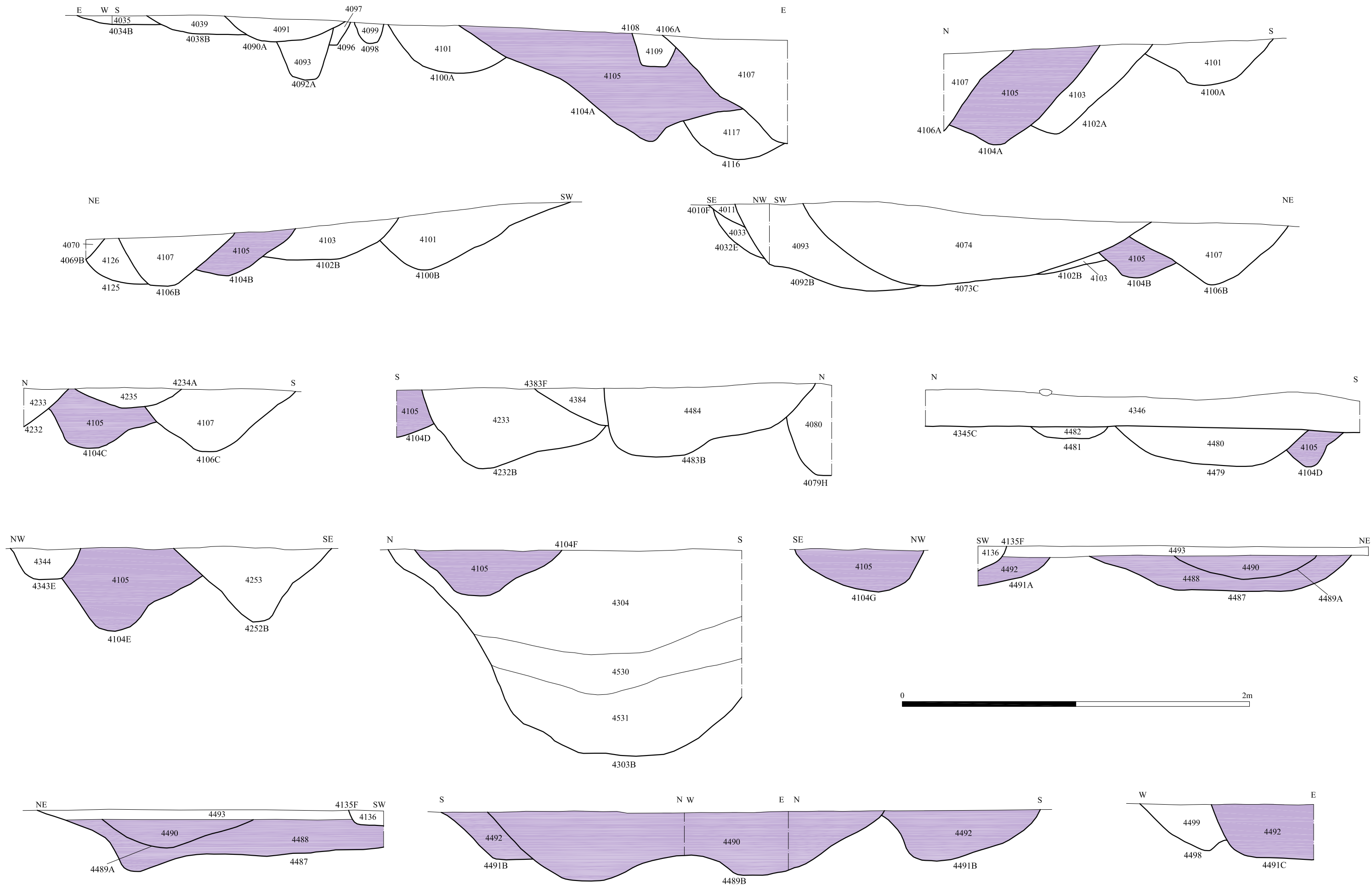
Archaeological Solutions Ltd
Fig. 74 Sections
 Scale 1:20 at A3



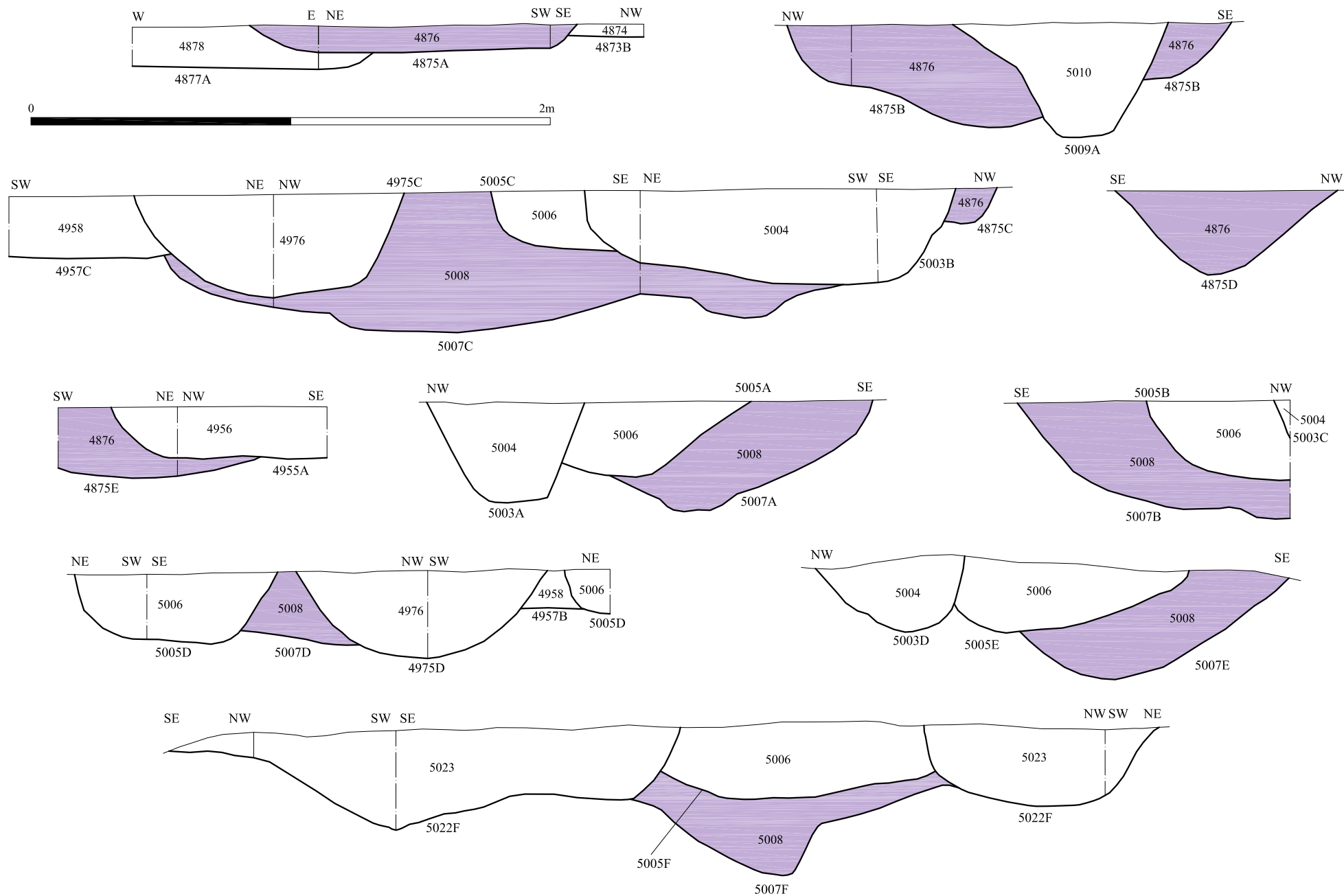
Archaeological Solutions Ltd
Fig. 75 Sections
 Scale 1:20 at A3



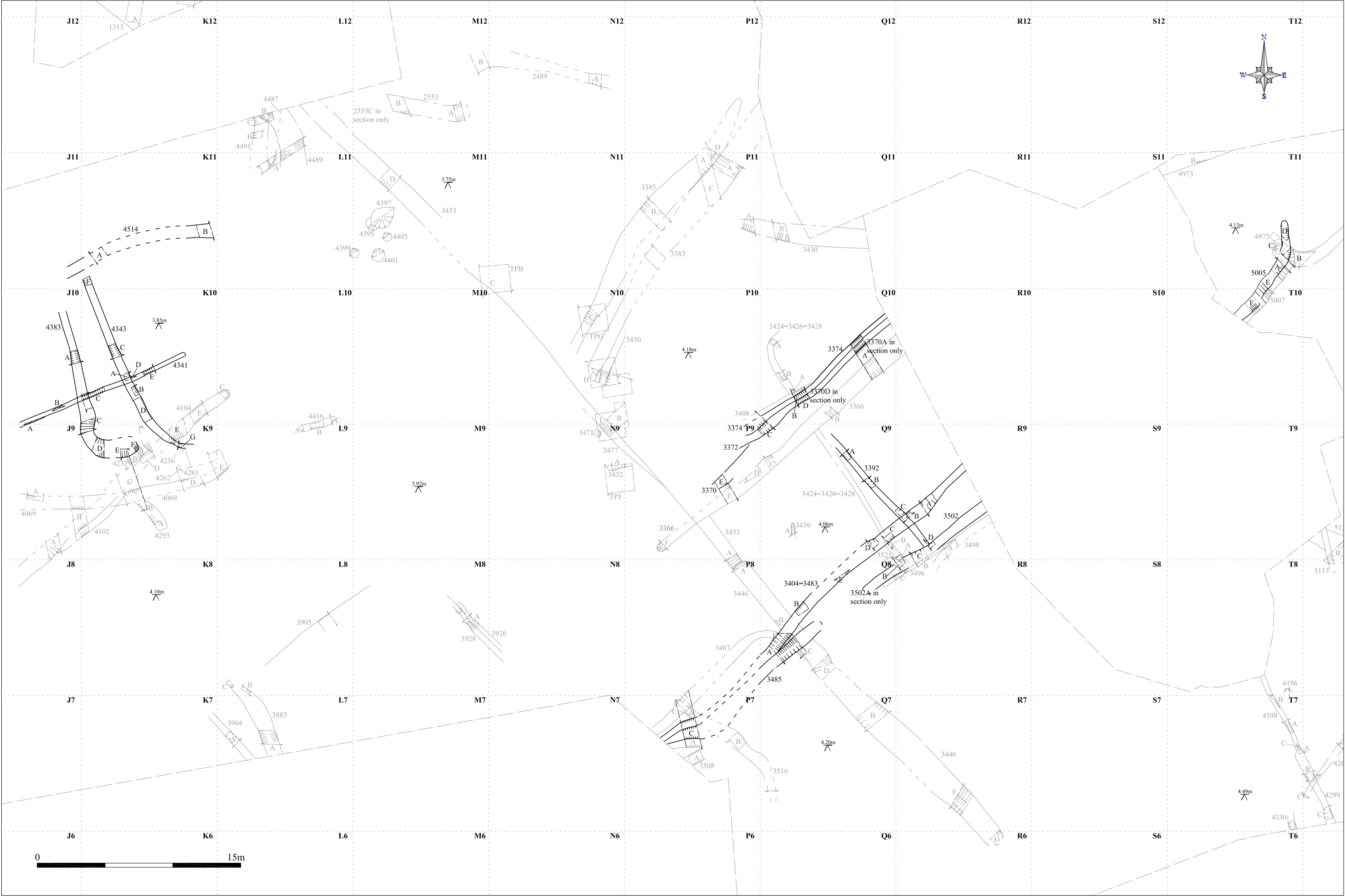
Archaeological Solutions Ltd
Fig. 76 Sections
 Scale 1:20 A3



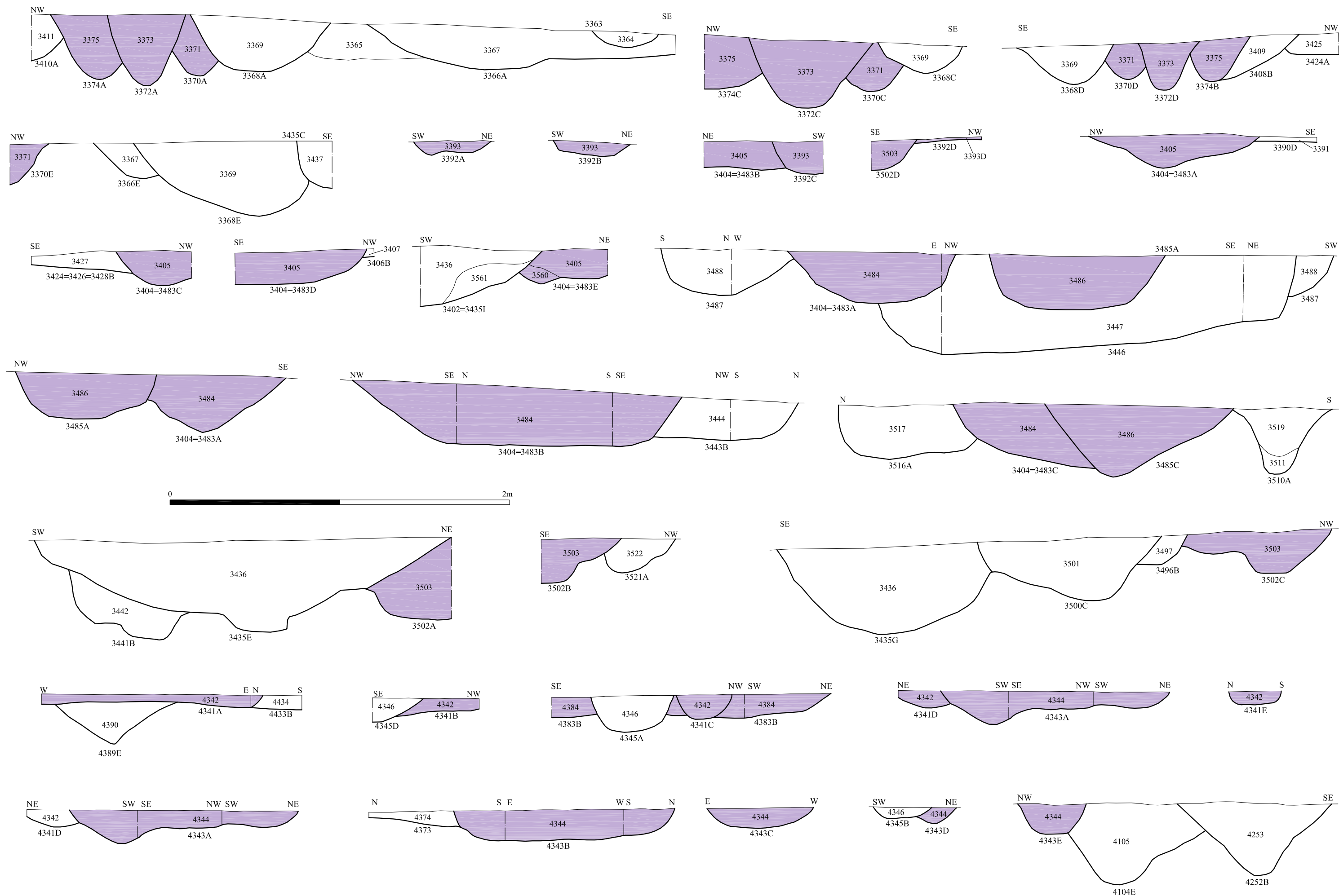
Archaeological Solutions Ltd
Fig. 77 Sections
 Scale 1:20 A3



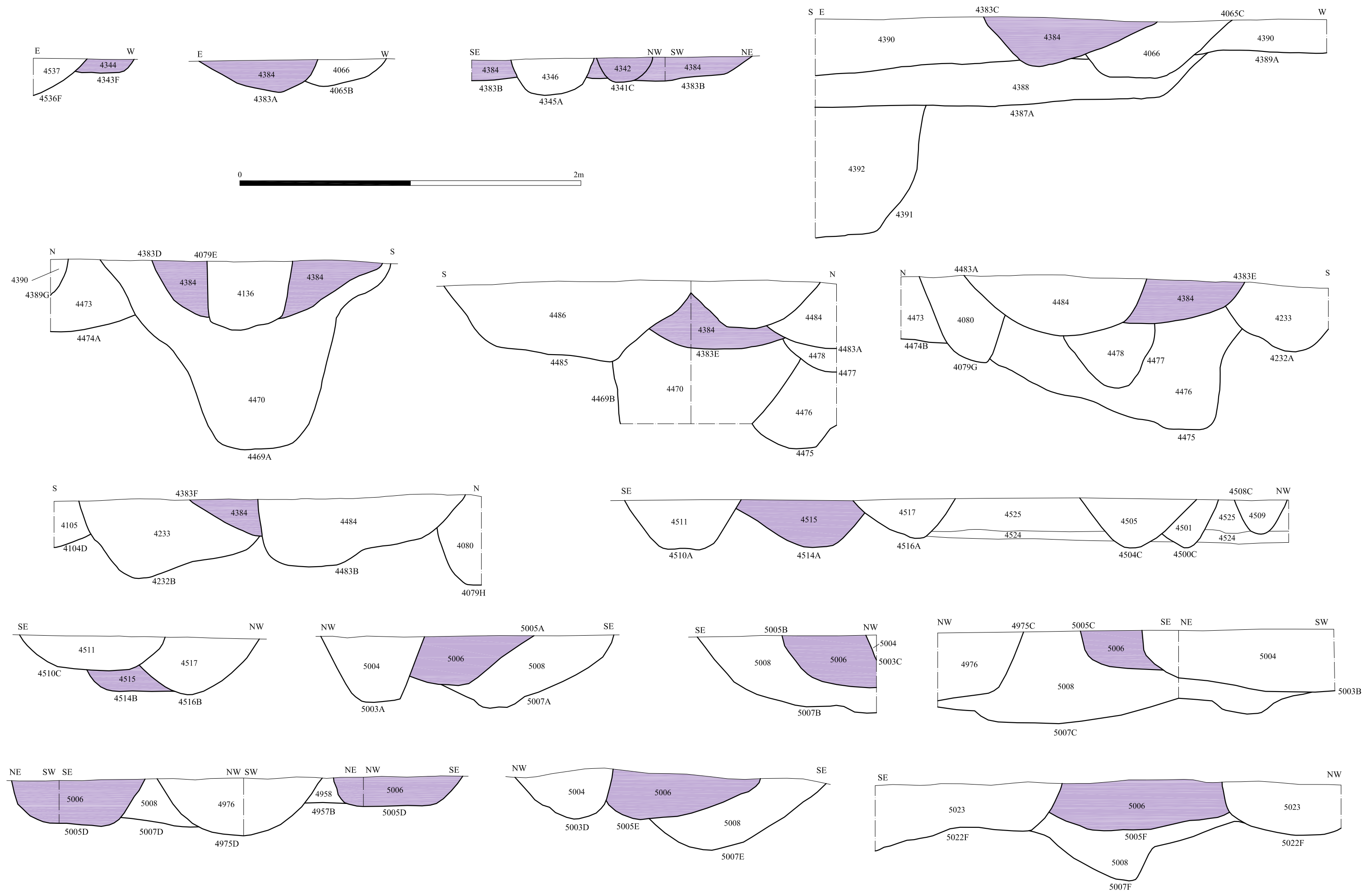
Archaeological Solutions Ltd
Fig. 78 Sections
 Scale 1:20 at A4



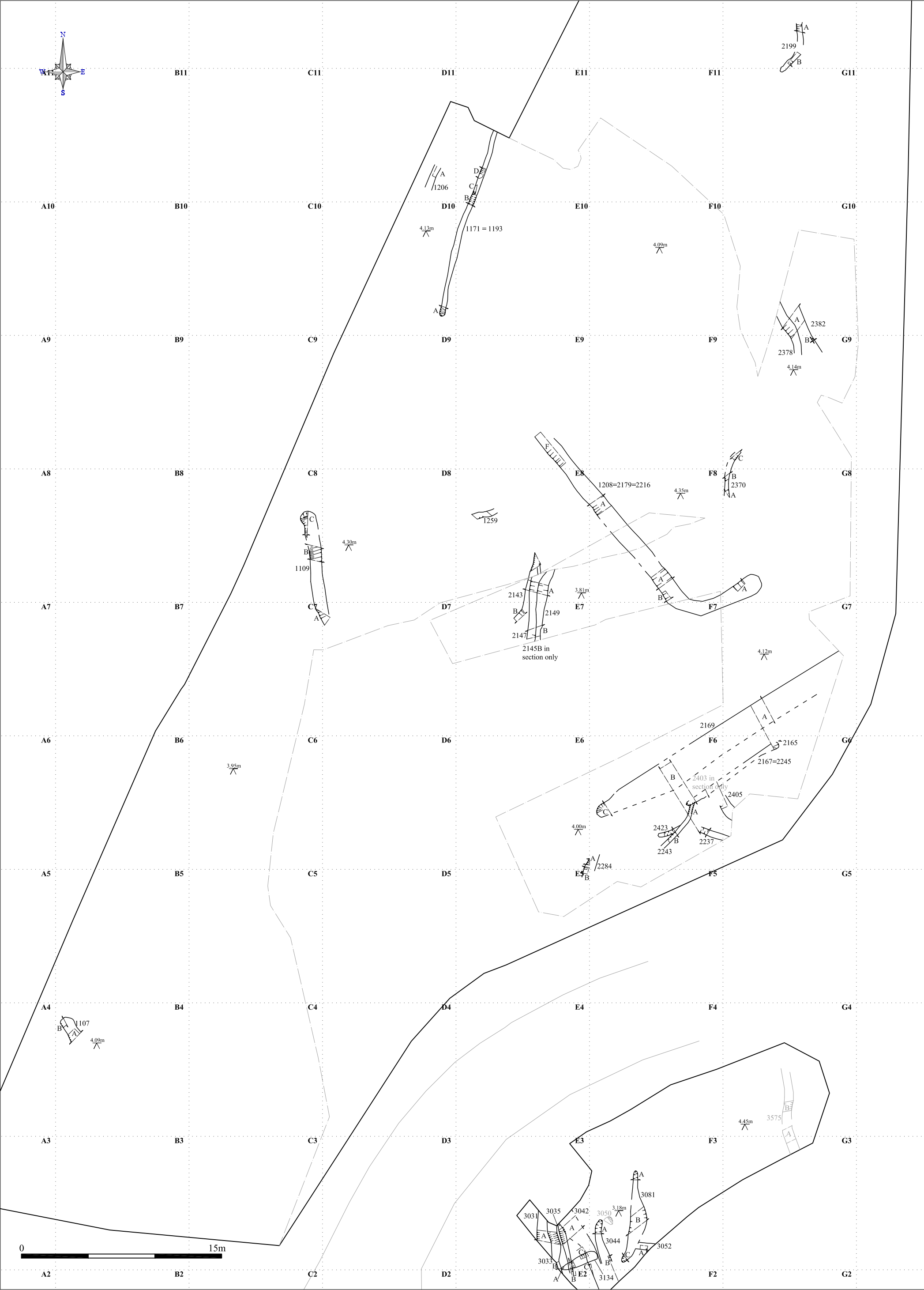
Roman Sub-Phase 3 Enclosure System 5 (principal features)



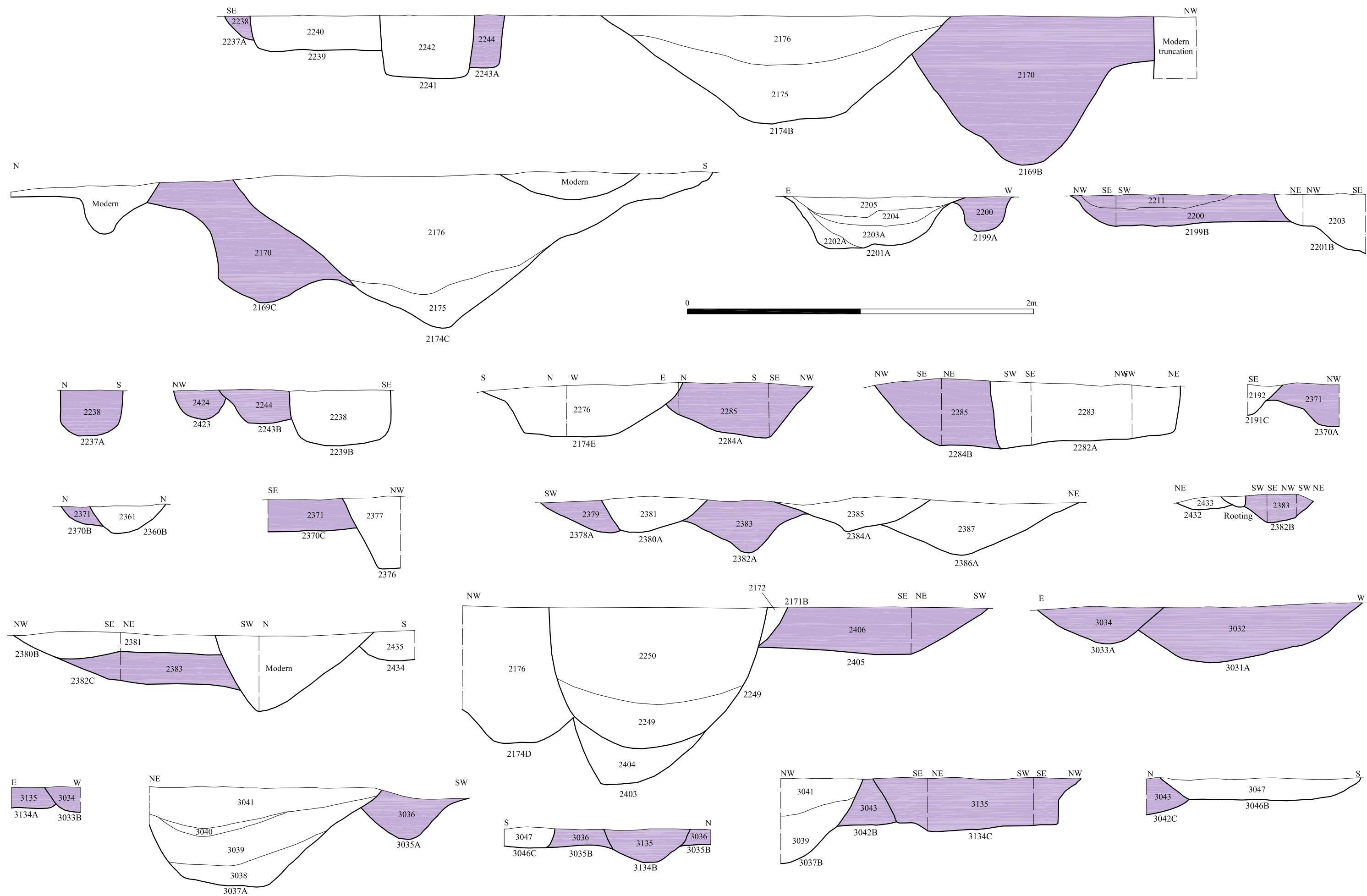
0 2m

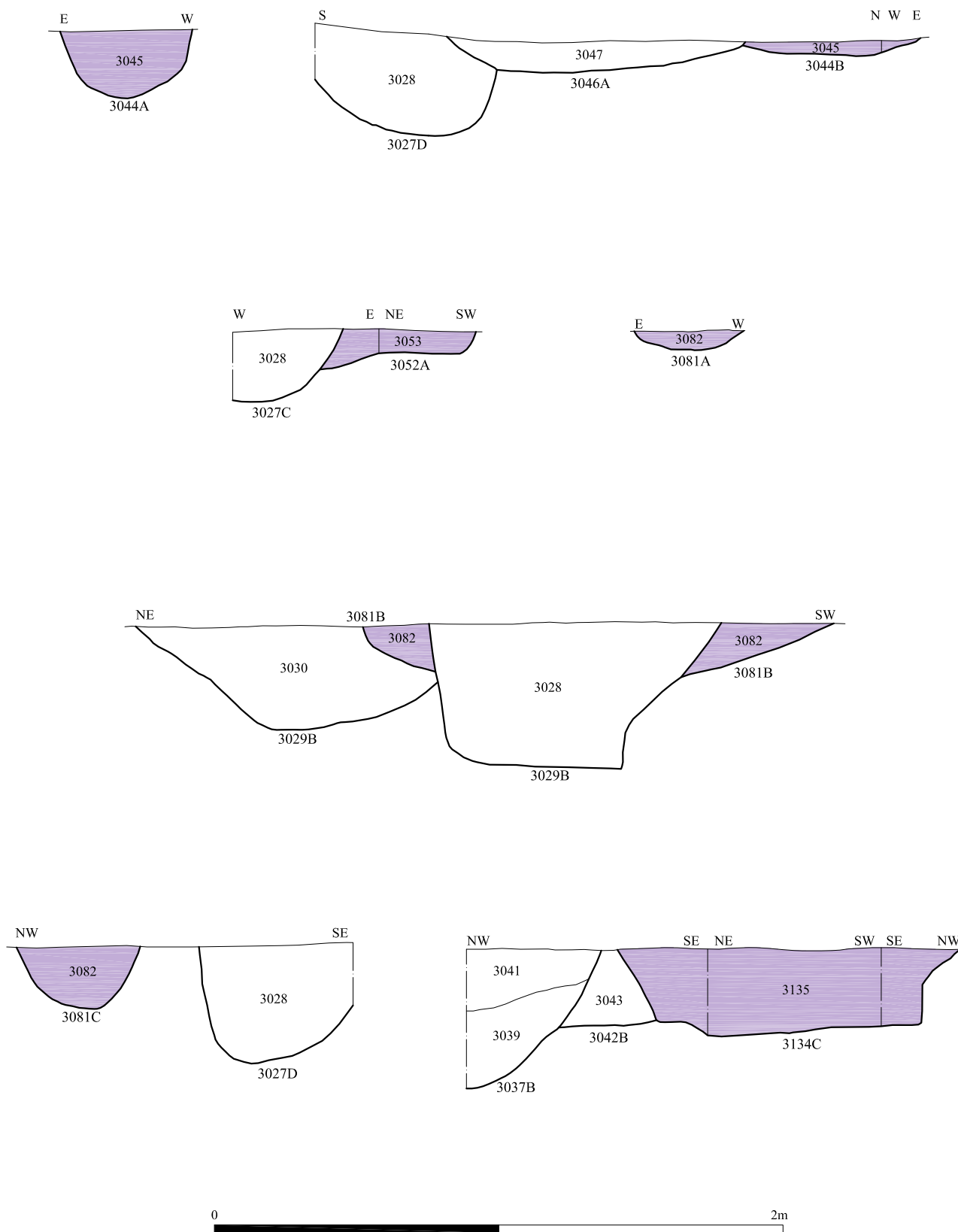


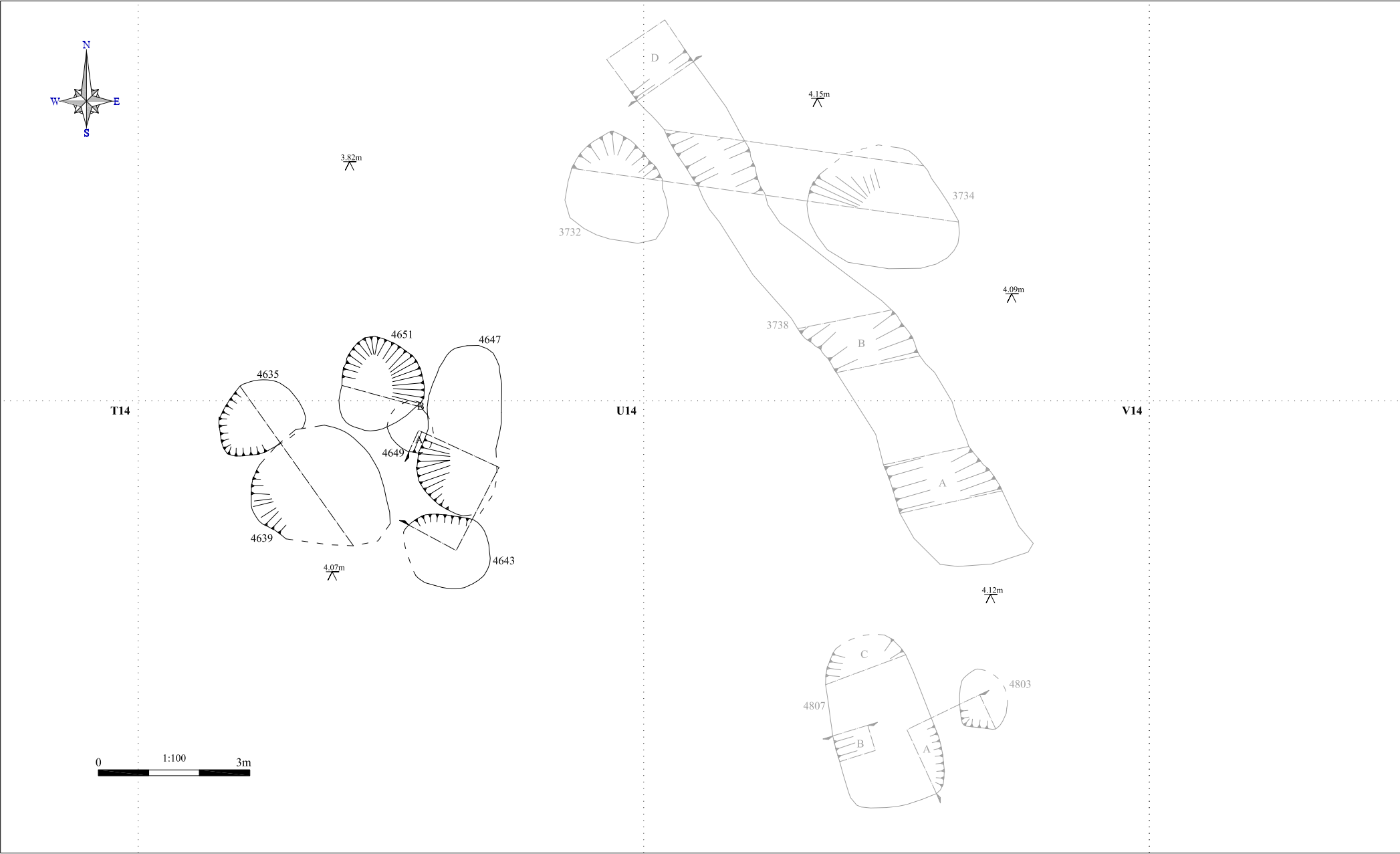
Archaeological Solutions Ltd
Fig. 81 Sections
Scale 1:20 at A3



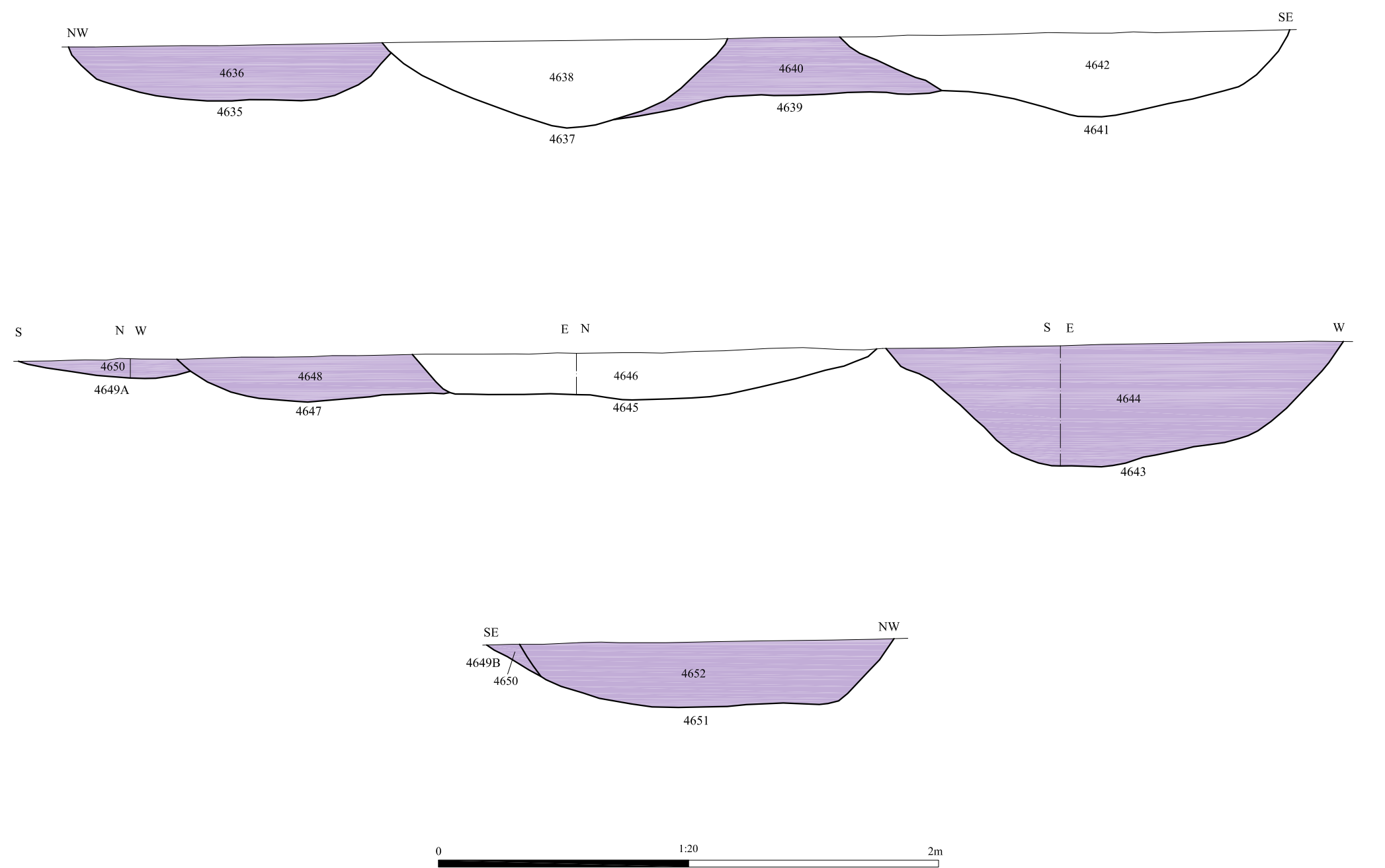
Principal Roman Sub-Phase 3 ditches and gullies in the western quadrant

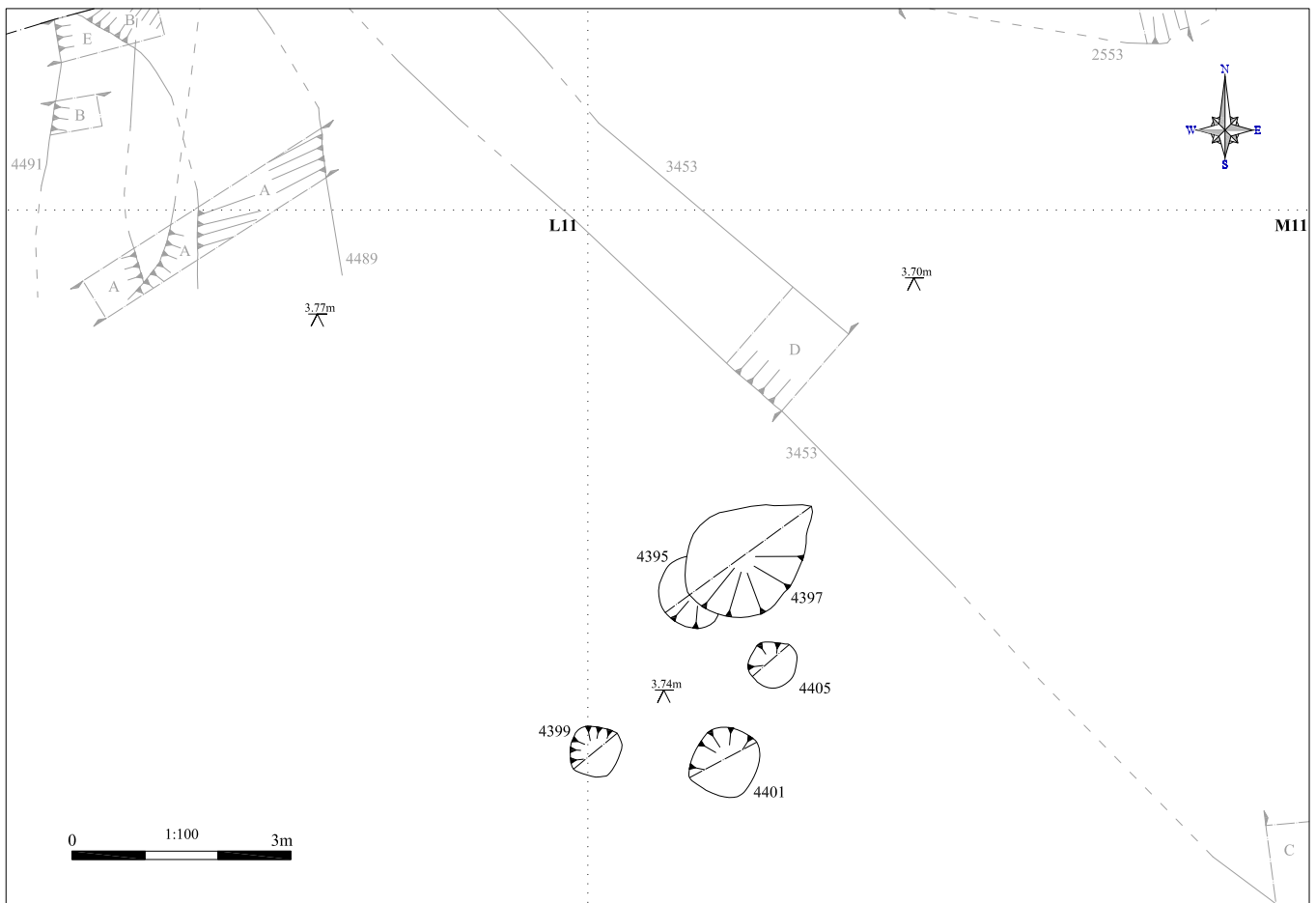




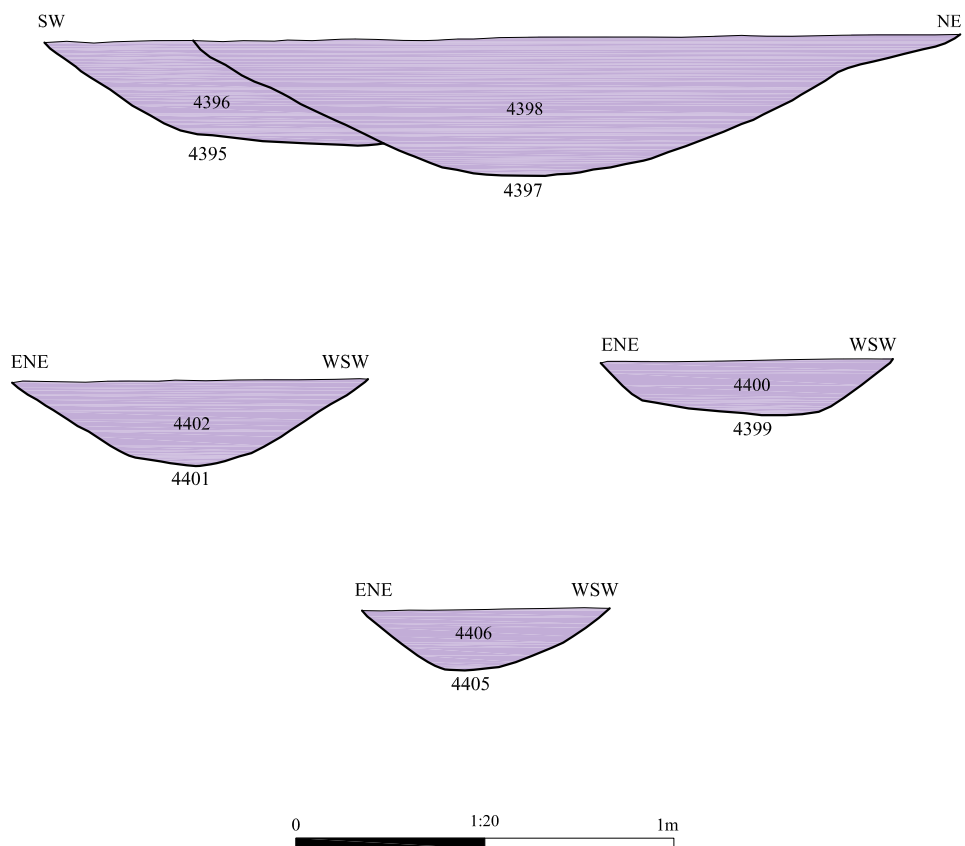


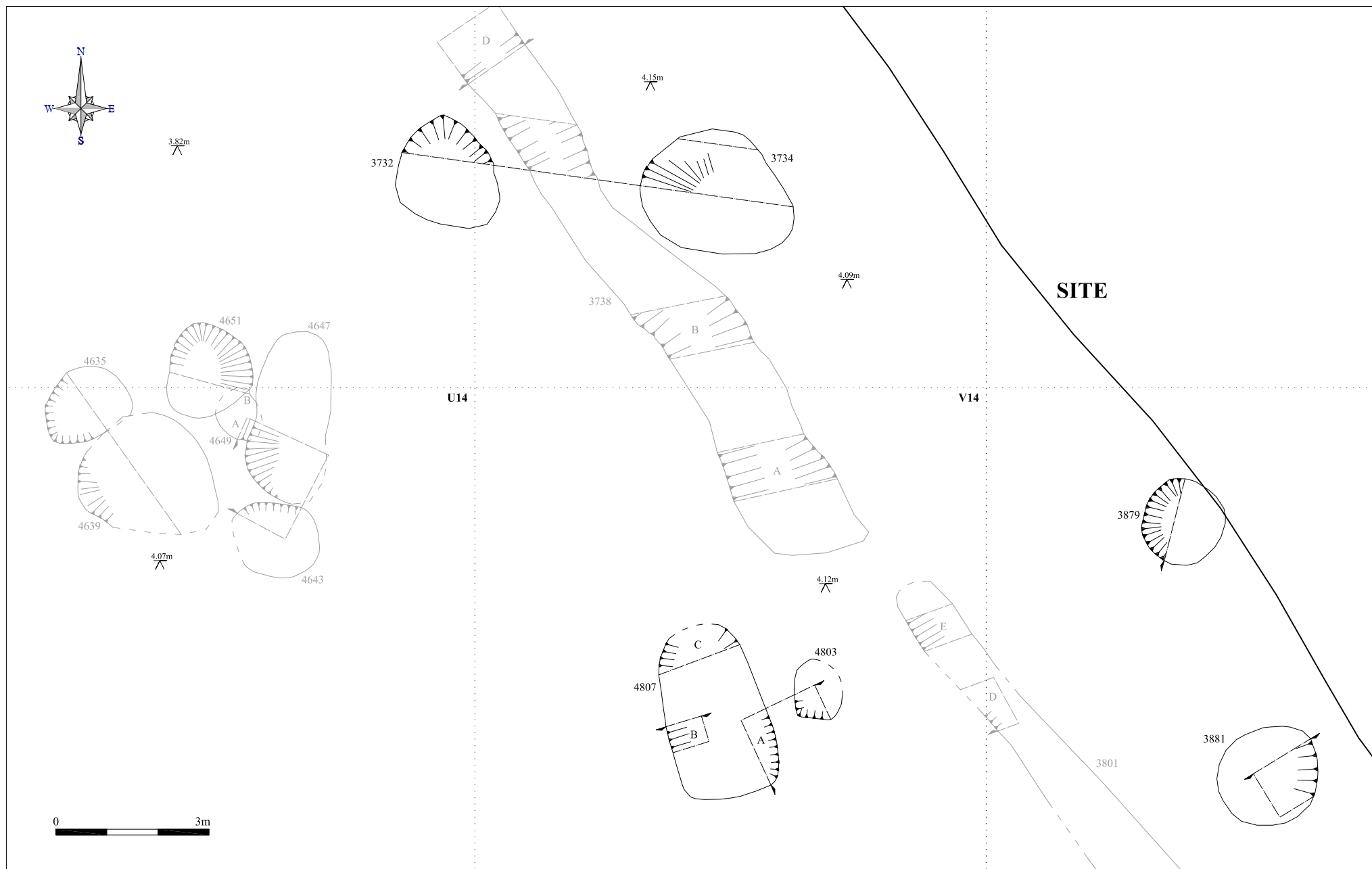
Roman Sub-Phase 3 pit cluster (1/3)



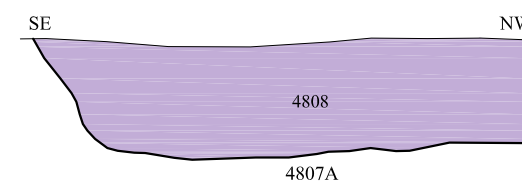
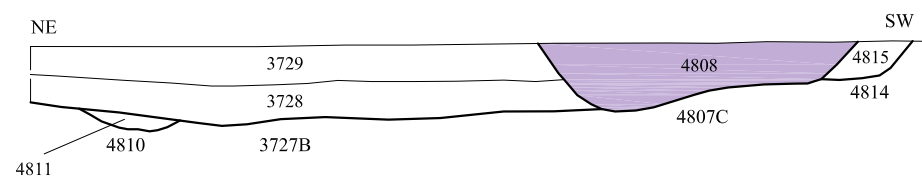
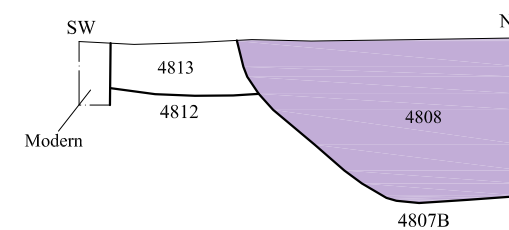
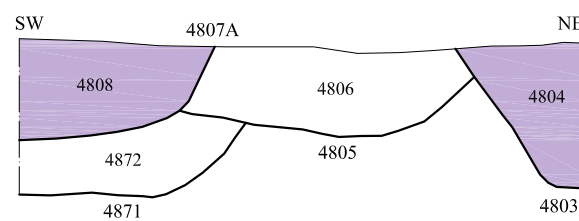
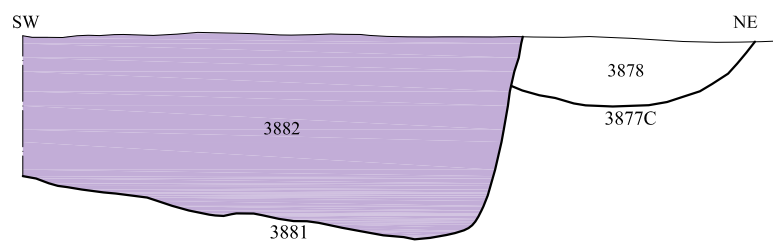
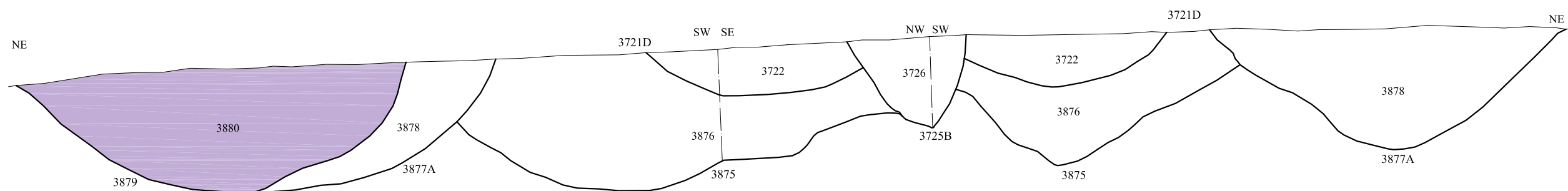
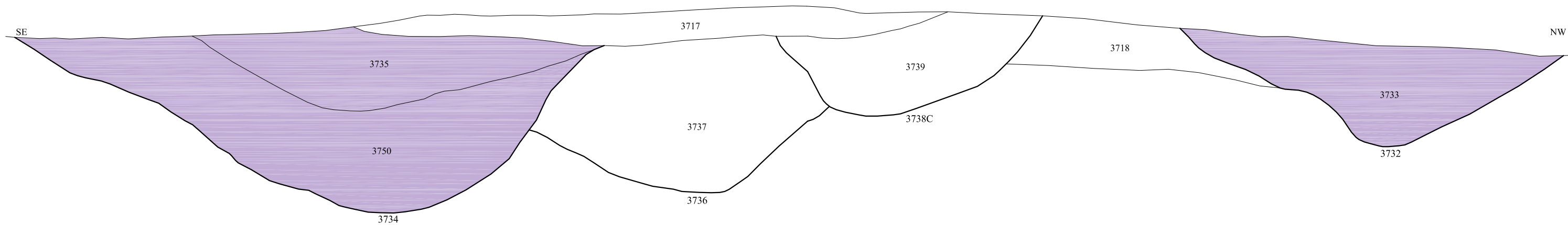


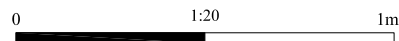
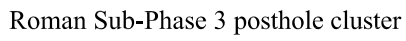
Roman Sub-Phase 3 pit cluster (2/3)

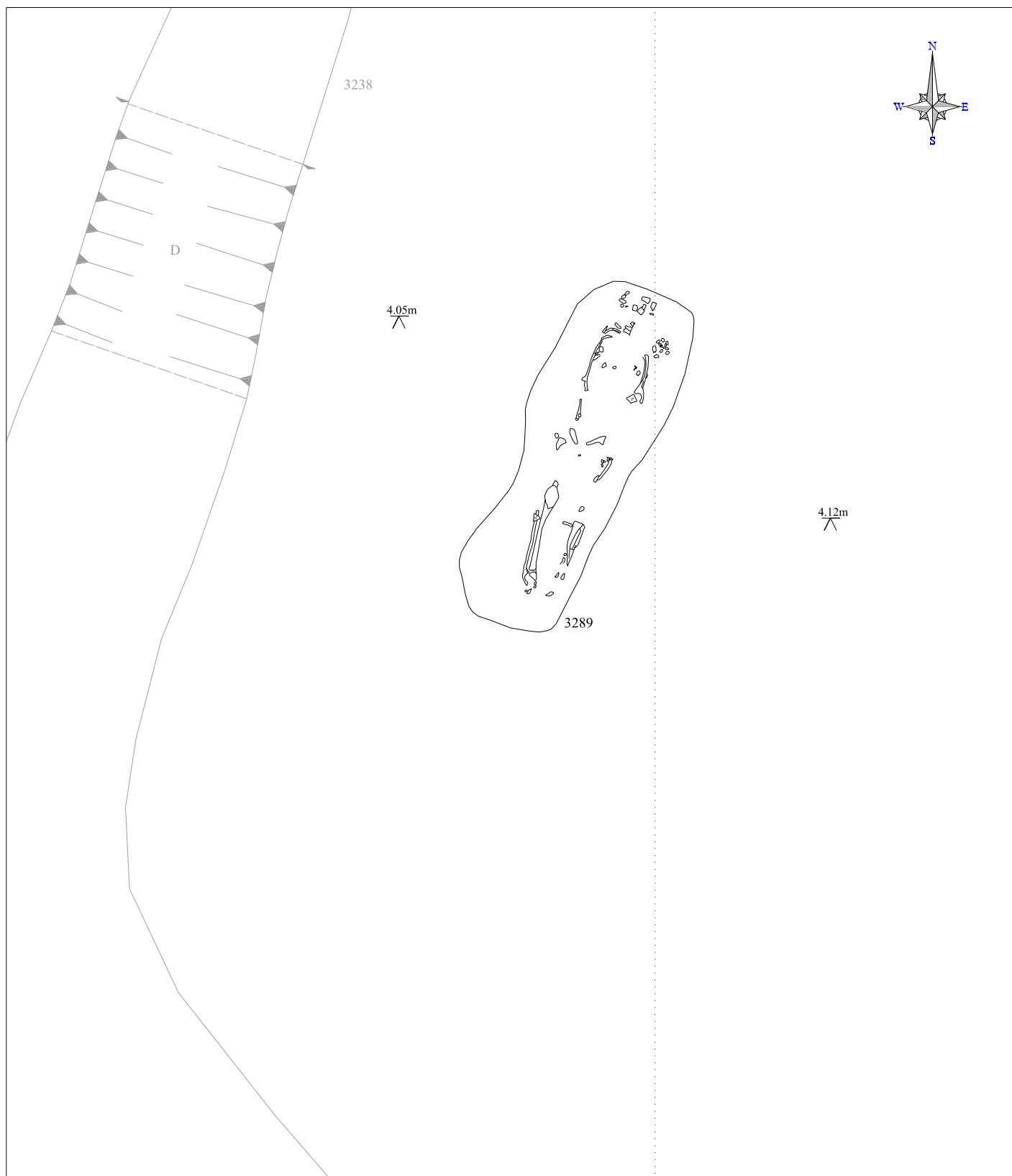




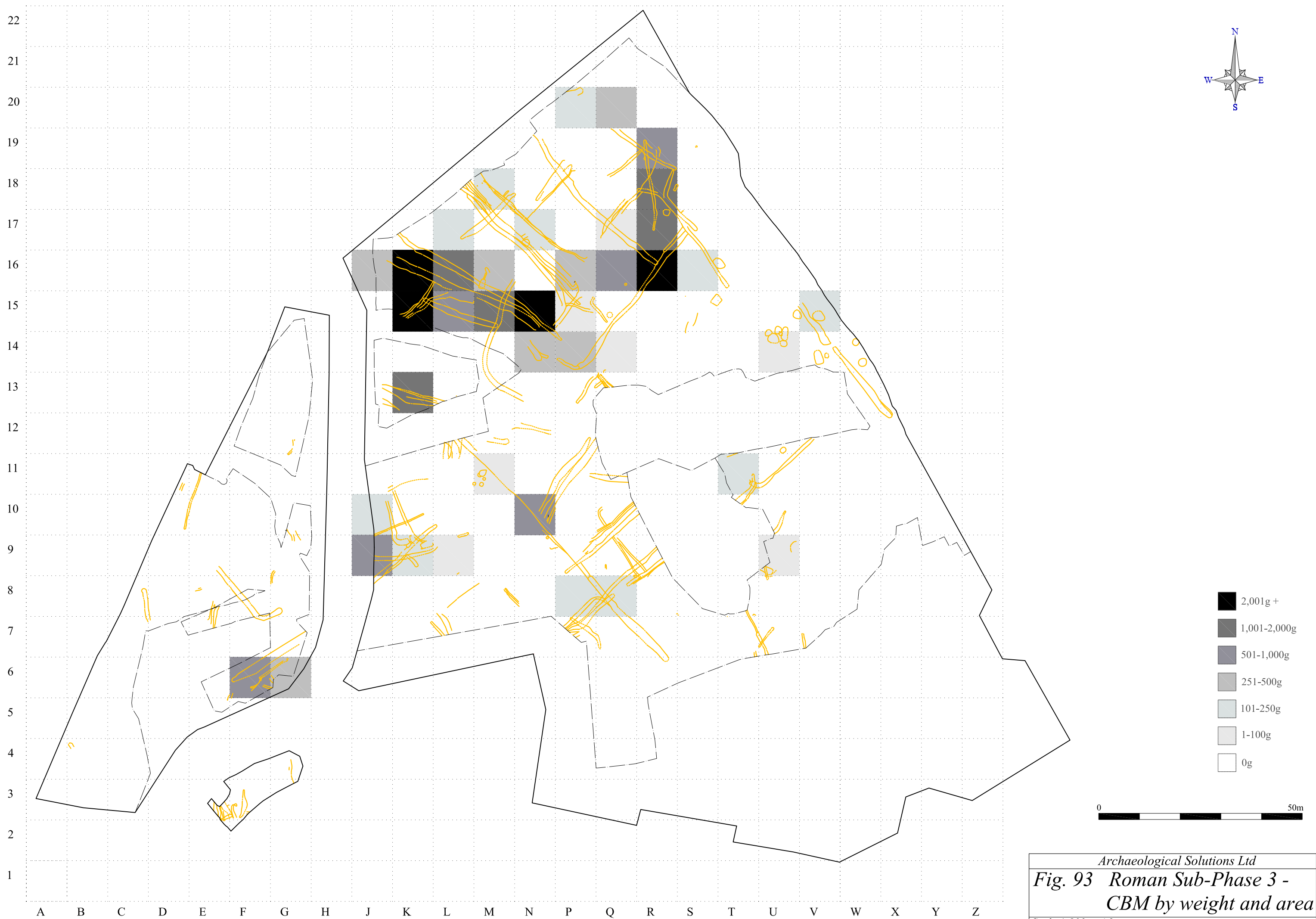
Loosely grouped Roman Sub-Phase 3 pits

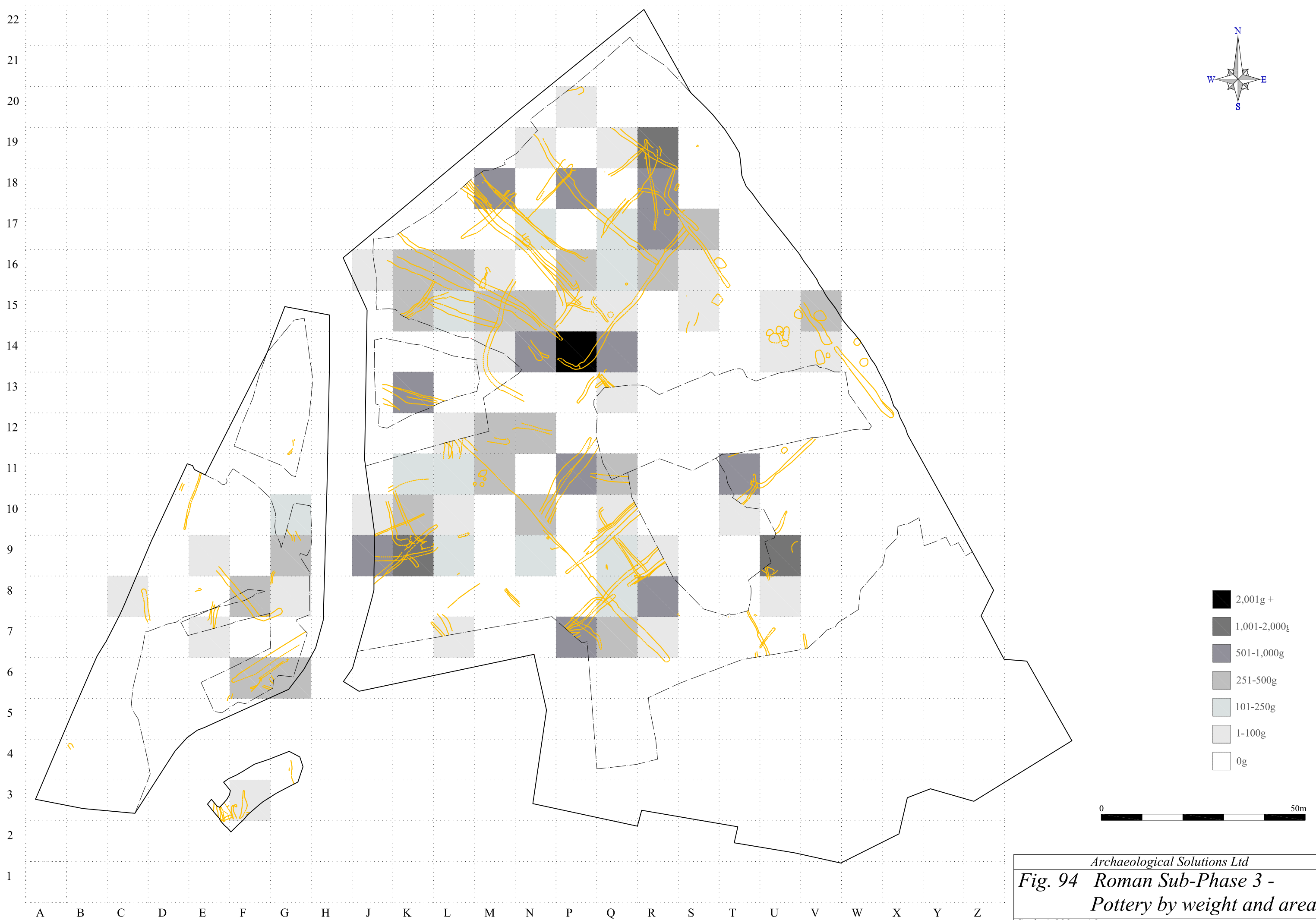






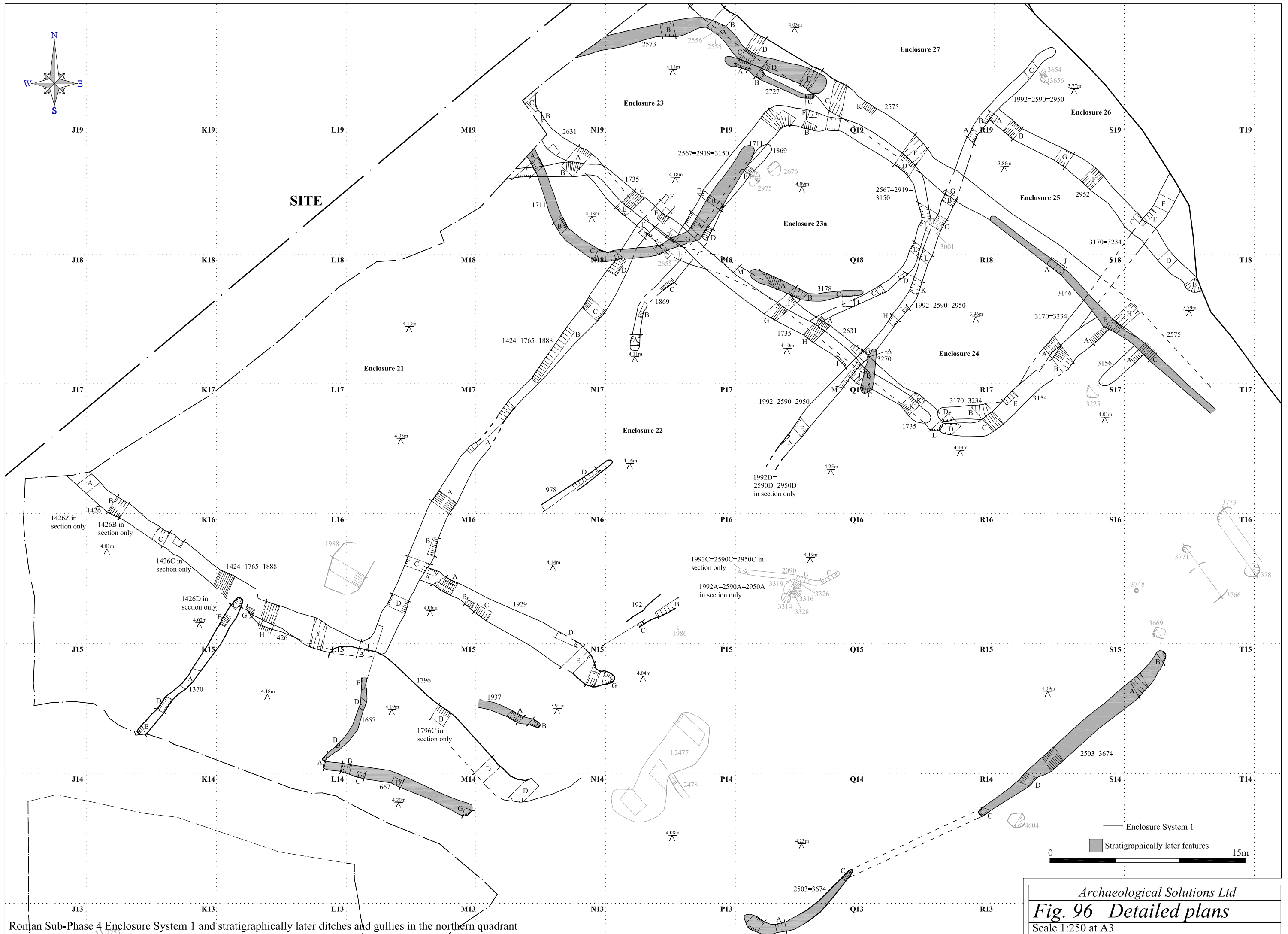
Roman Sub-Phase 3 grave cut F3289 (SK9)

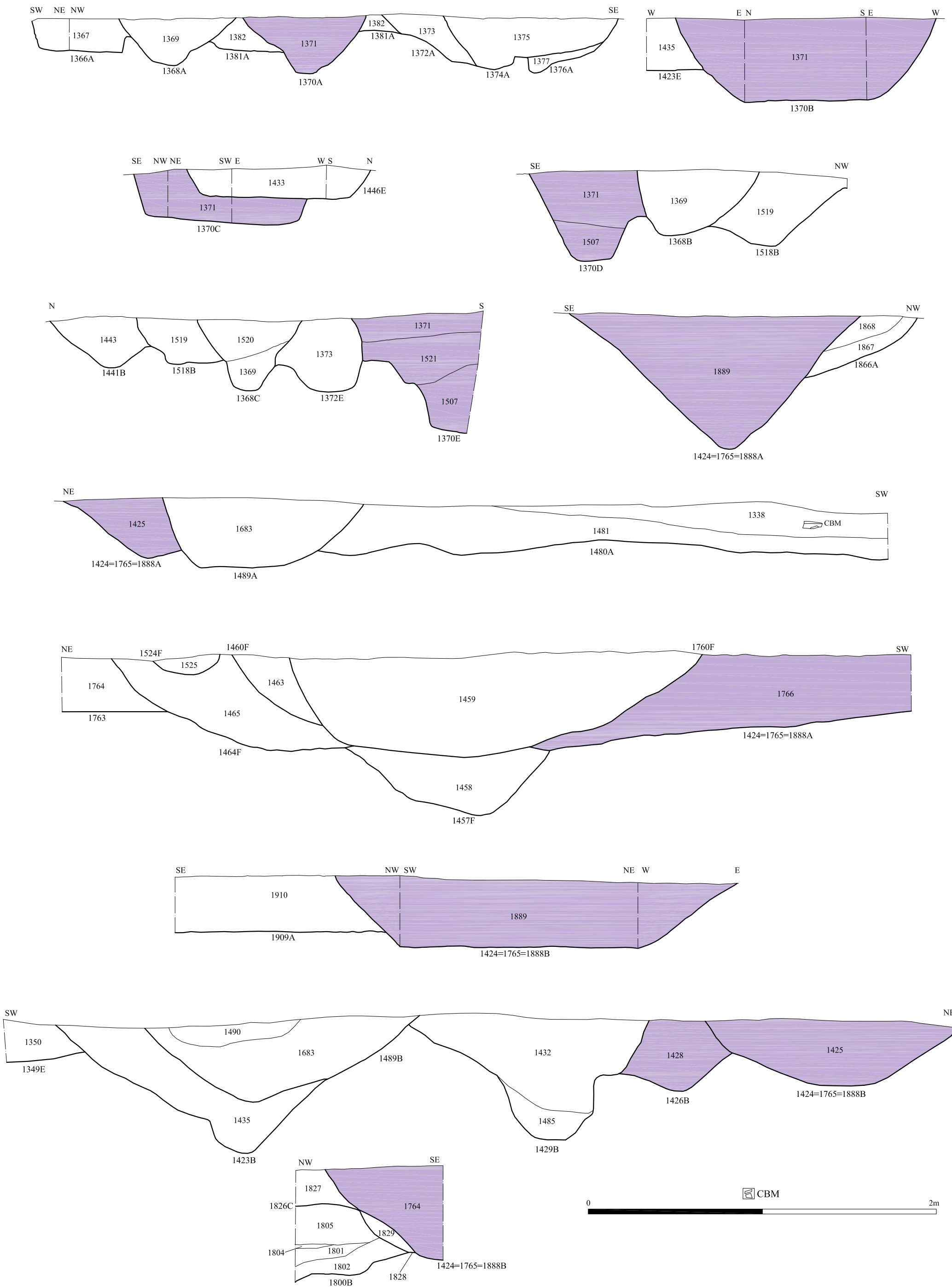




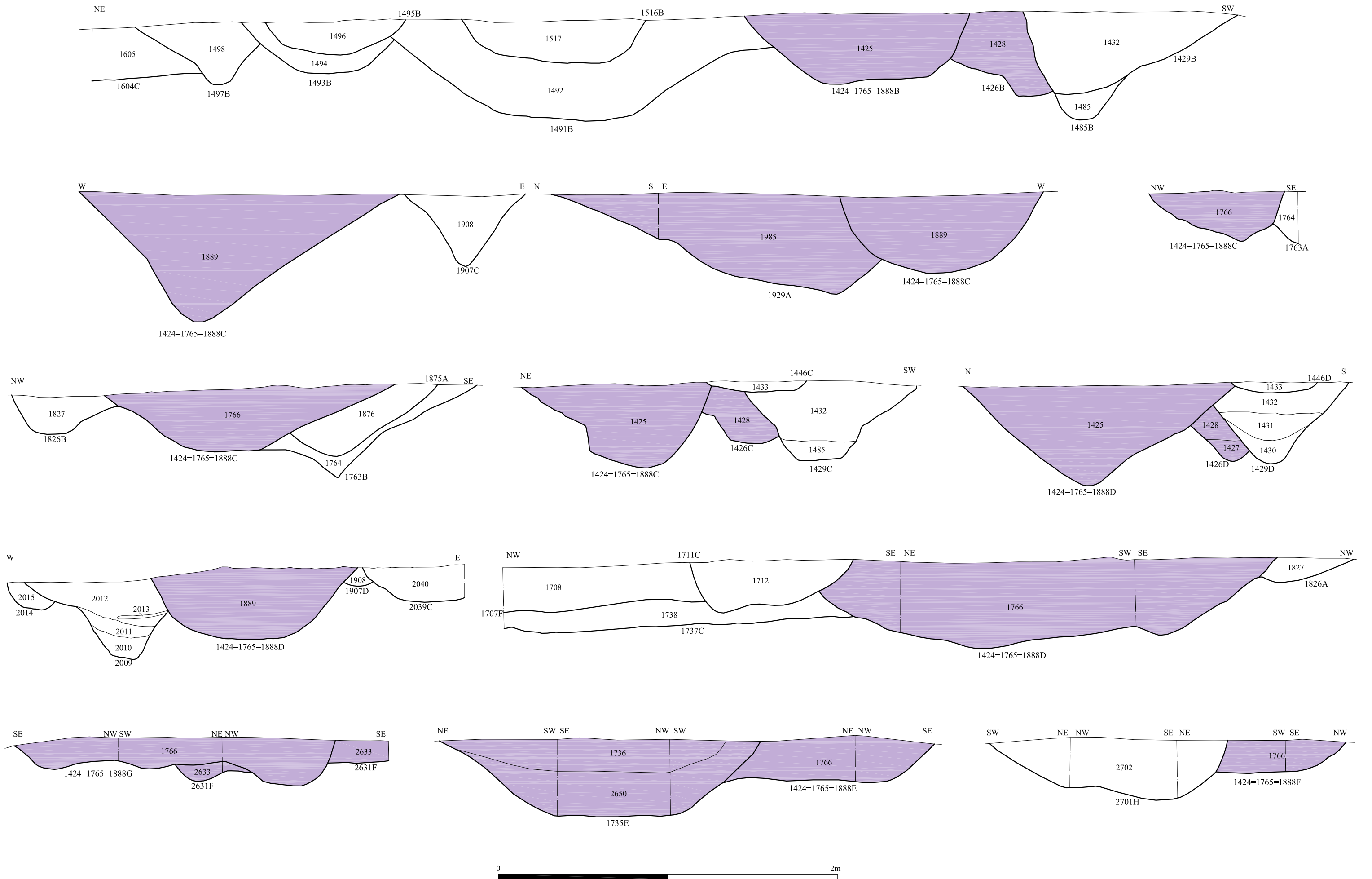
Archaeological Solutions Ltd
Fig. 94 Roman Sub-Phase 3 - Pottery by weight and area
Scale 1:800 at A3

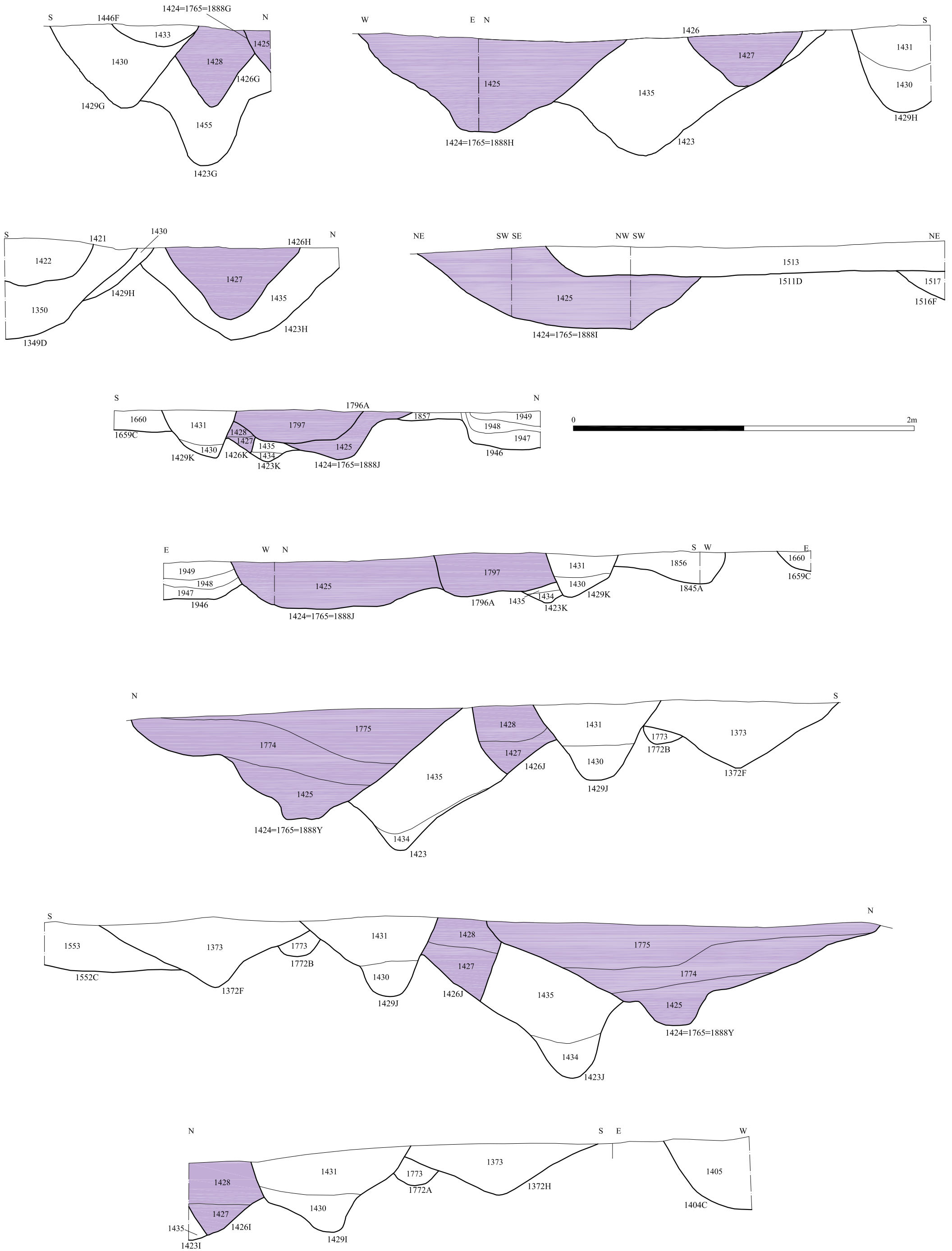


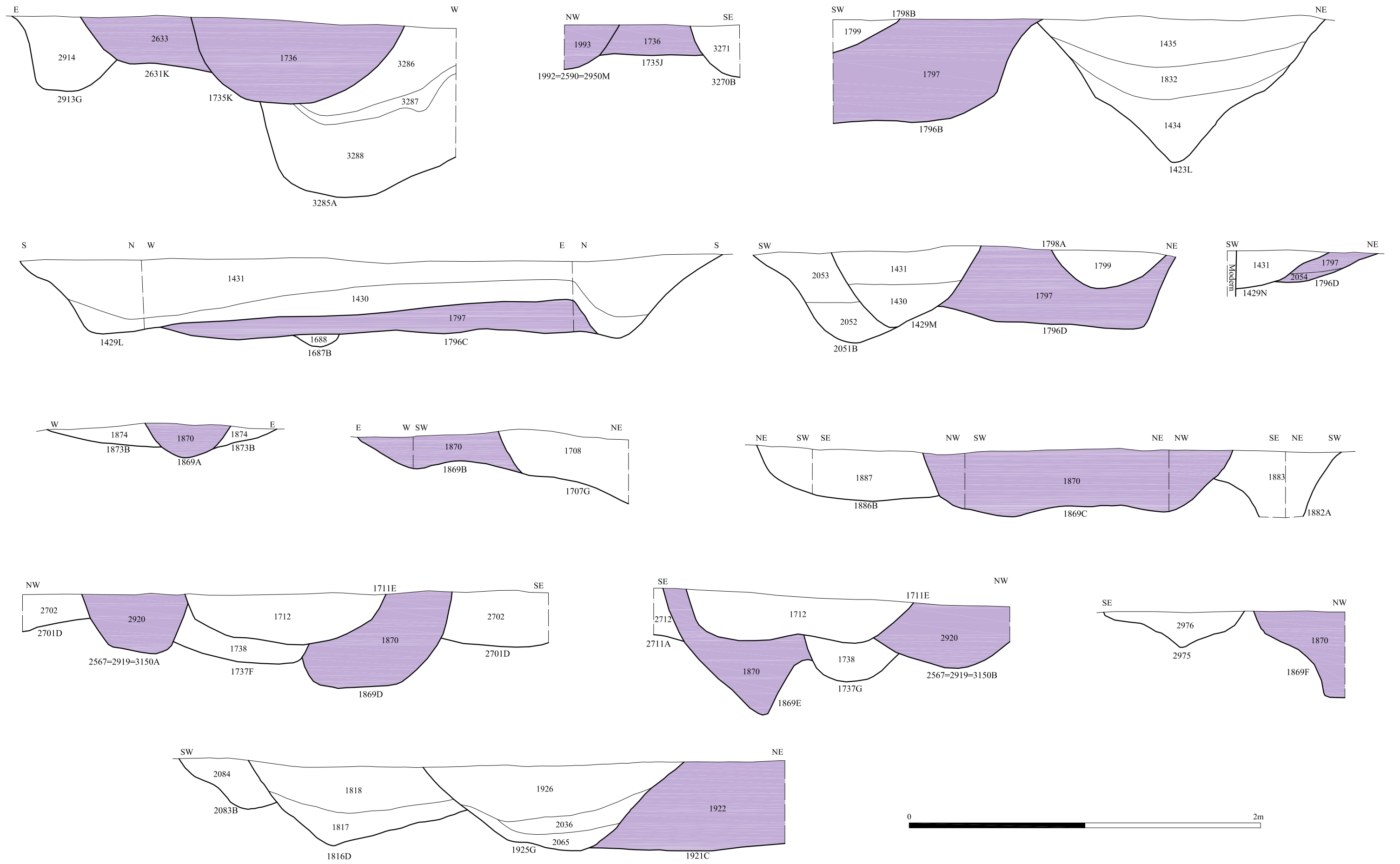


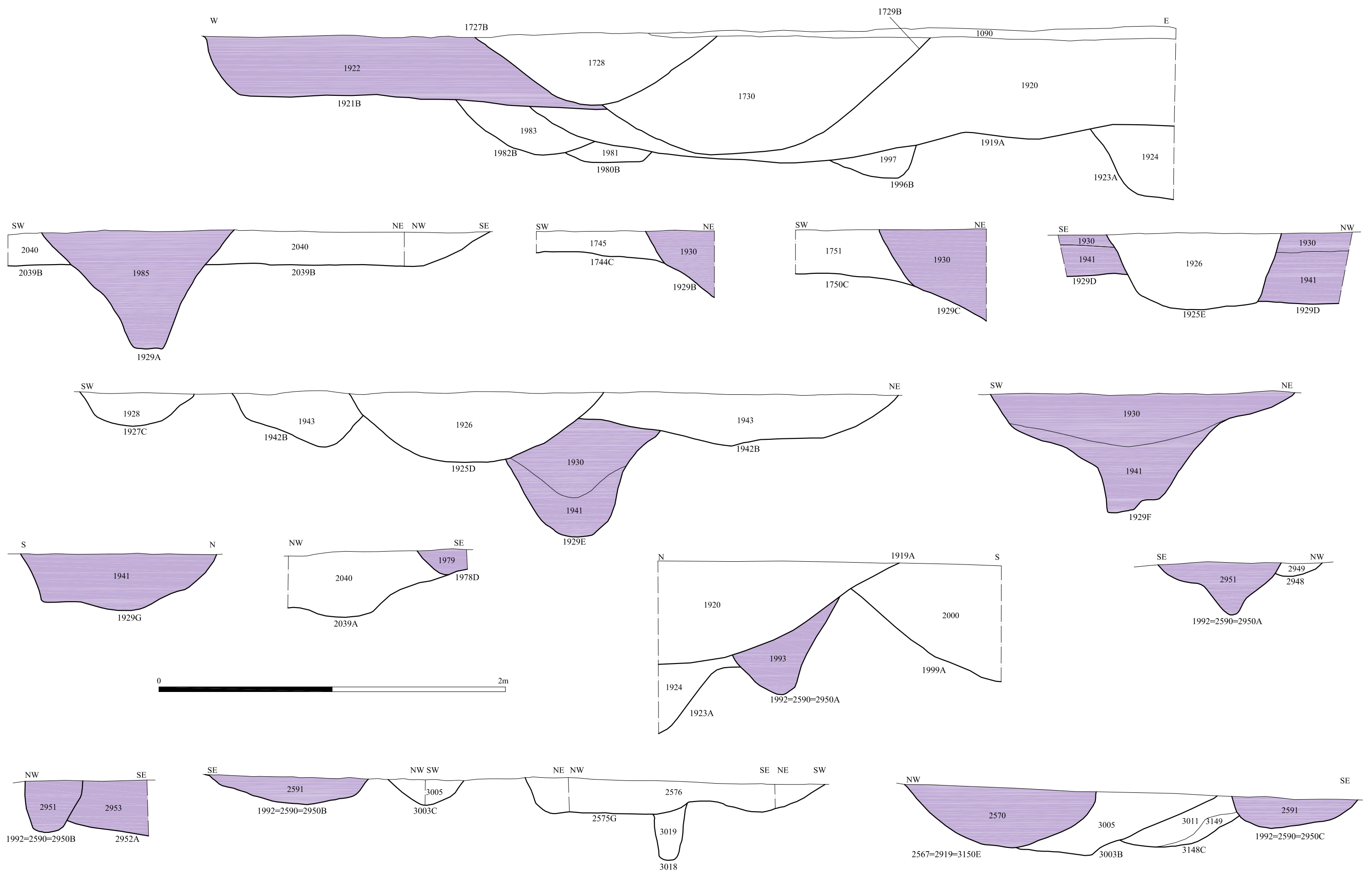


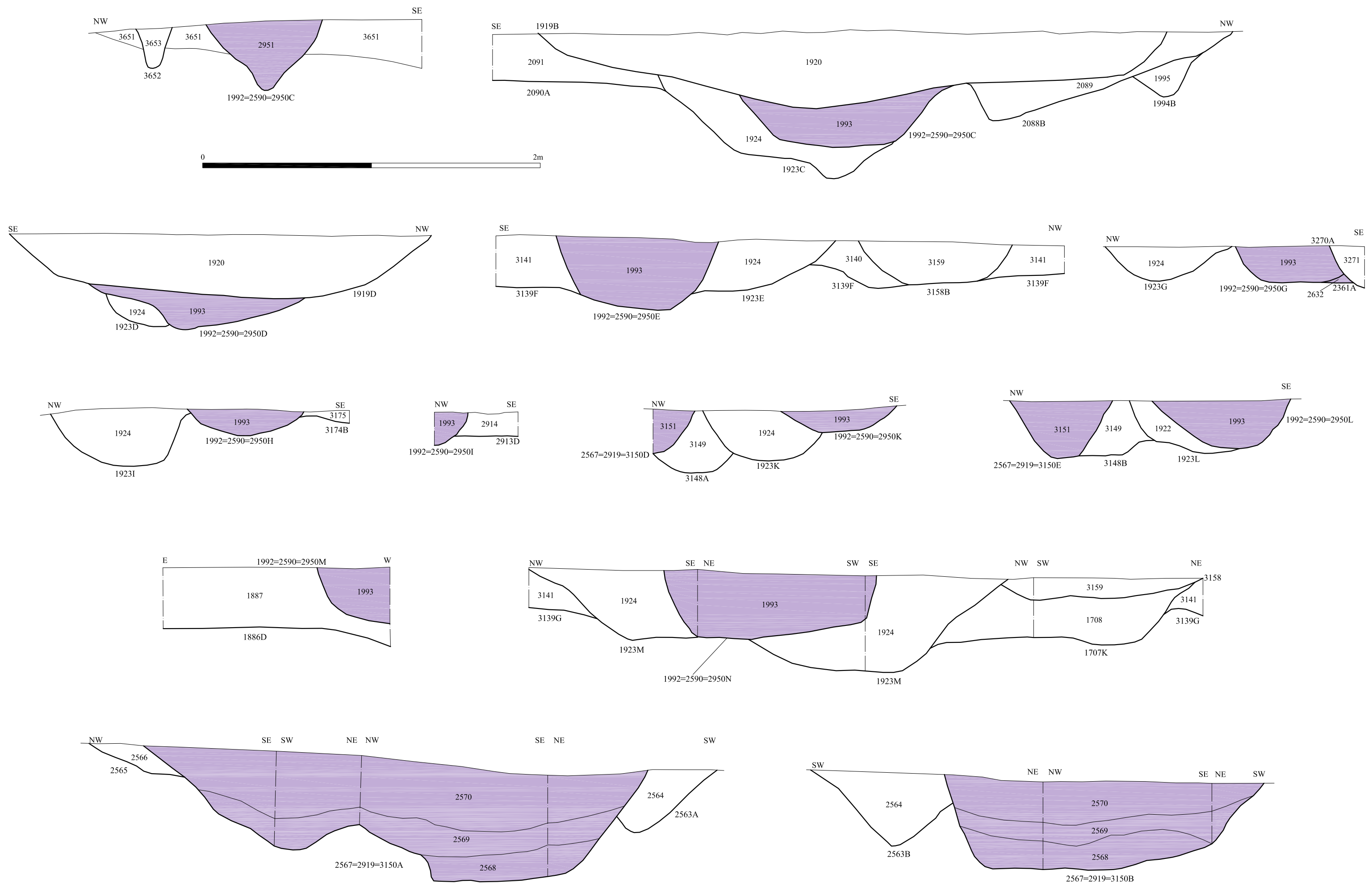
Archaeological Solutions Ltd
Fig. 97 Sections
Scale 1:20 at A3

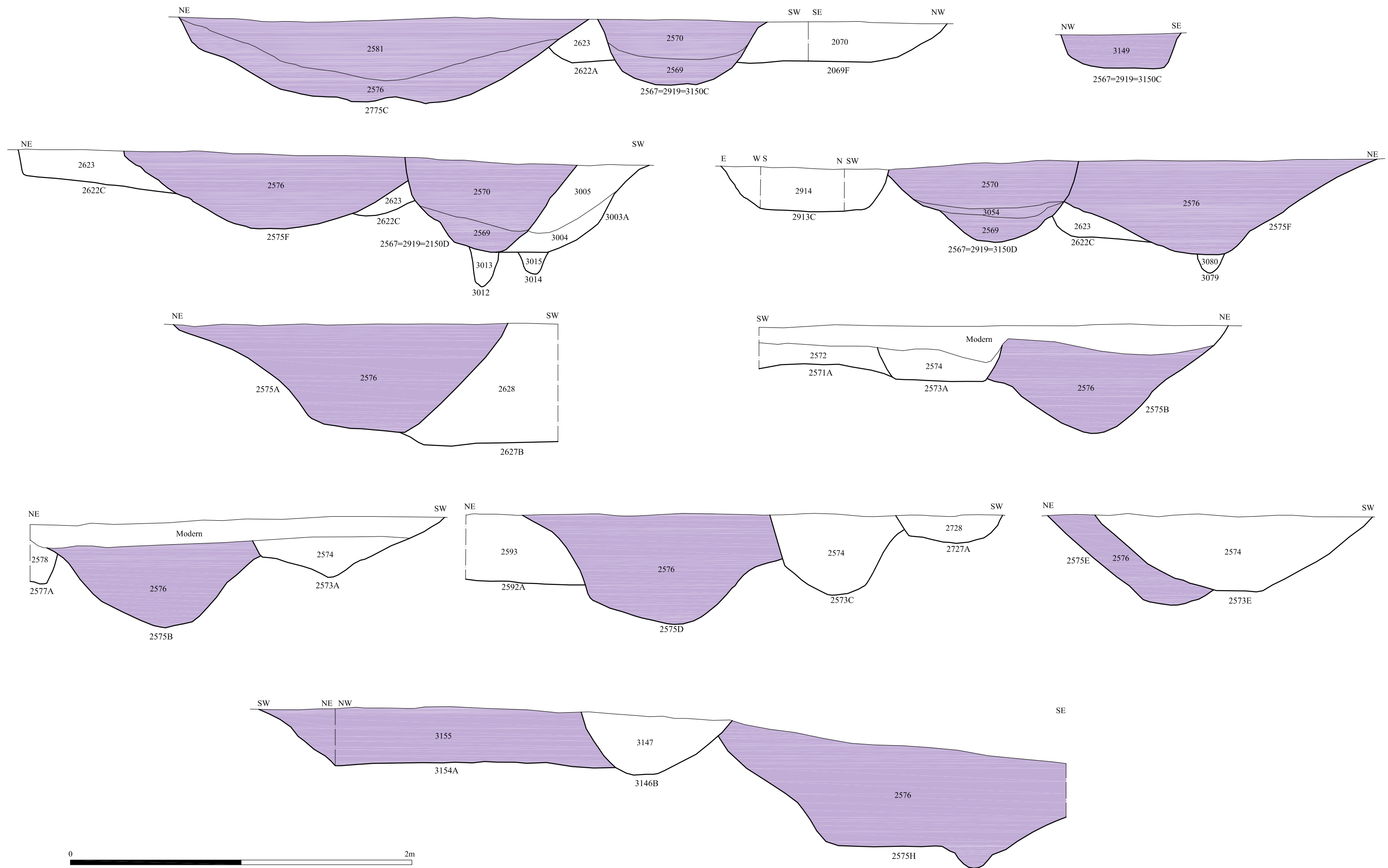


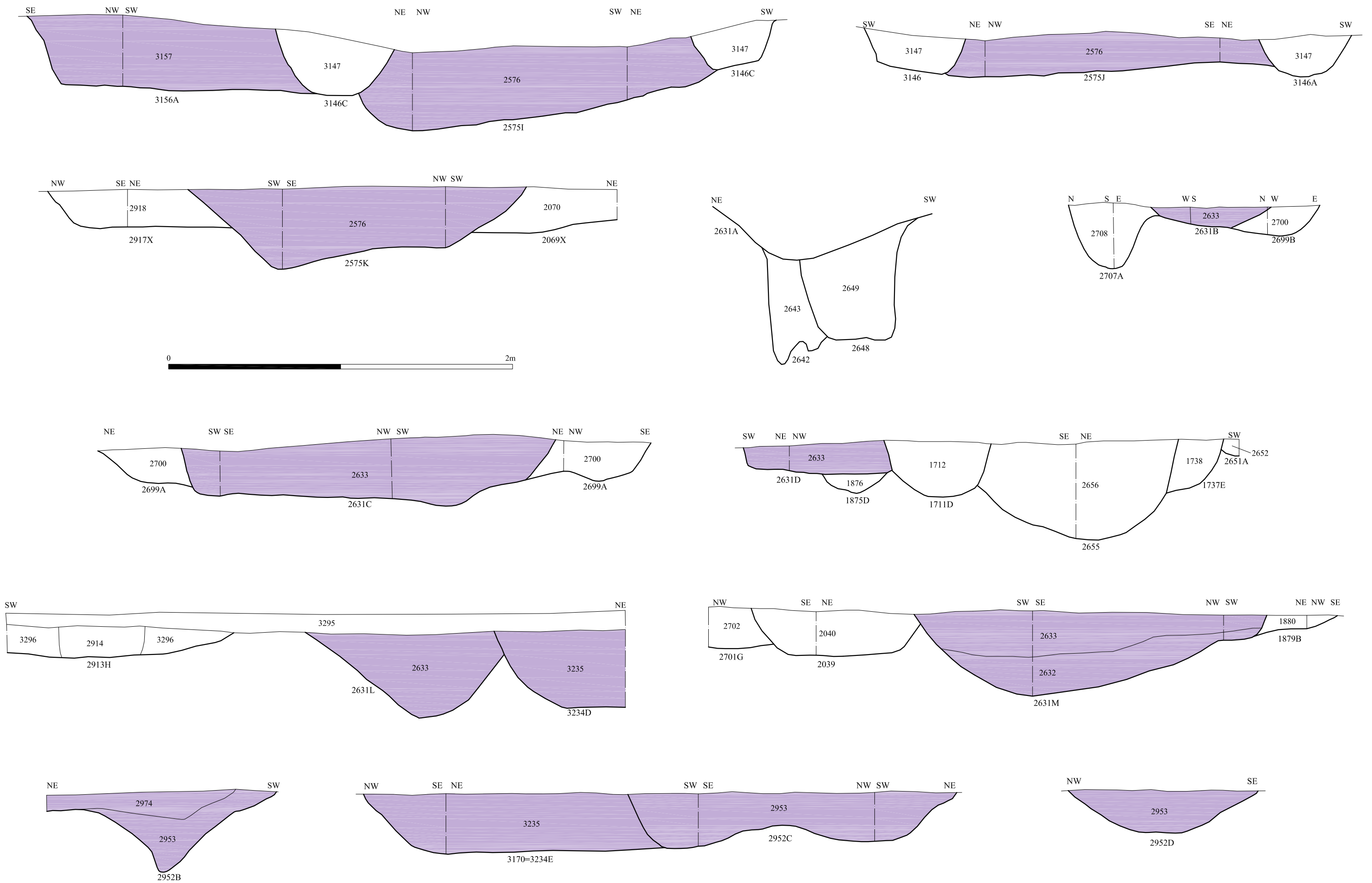


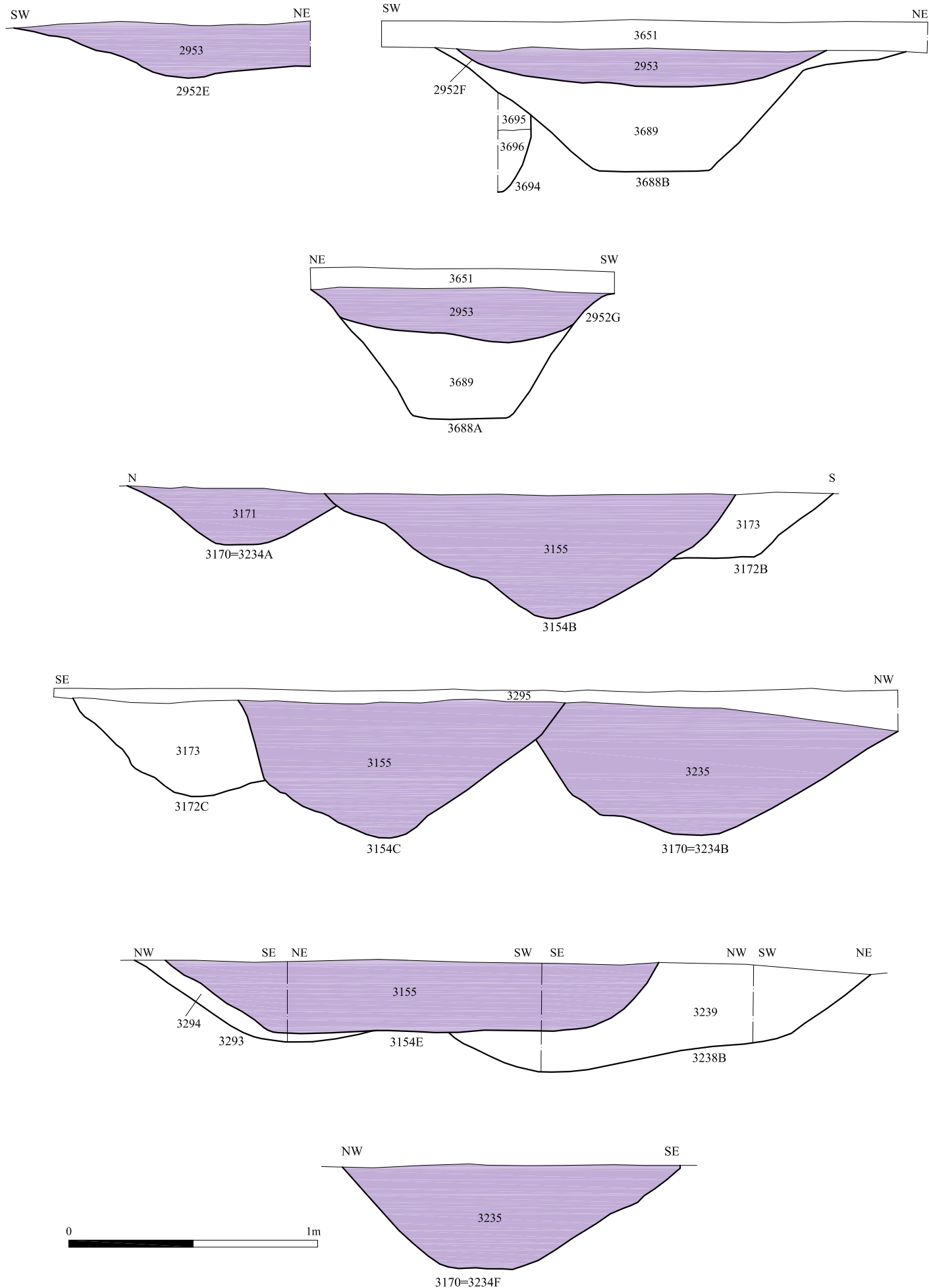




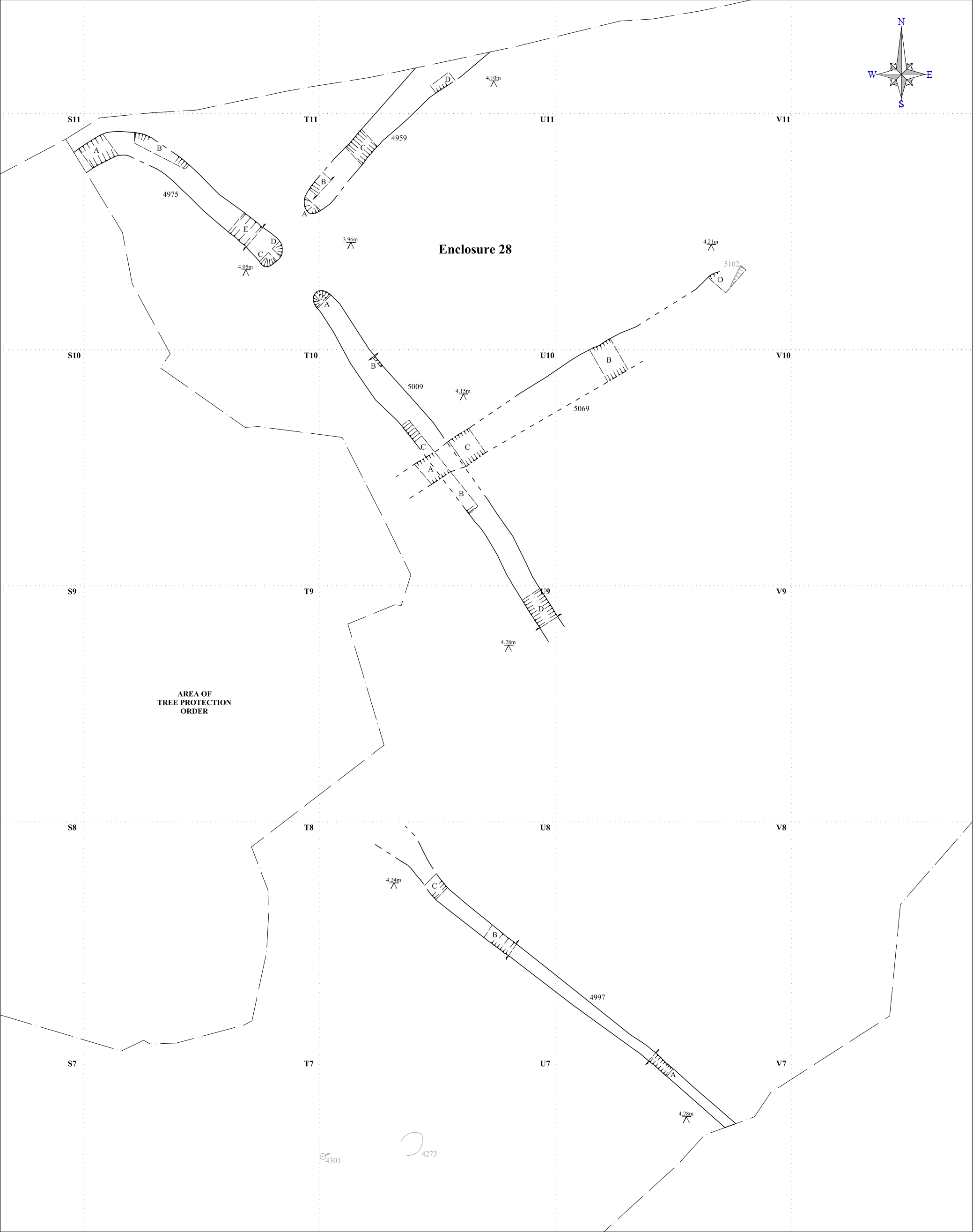




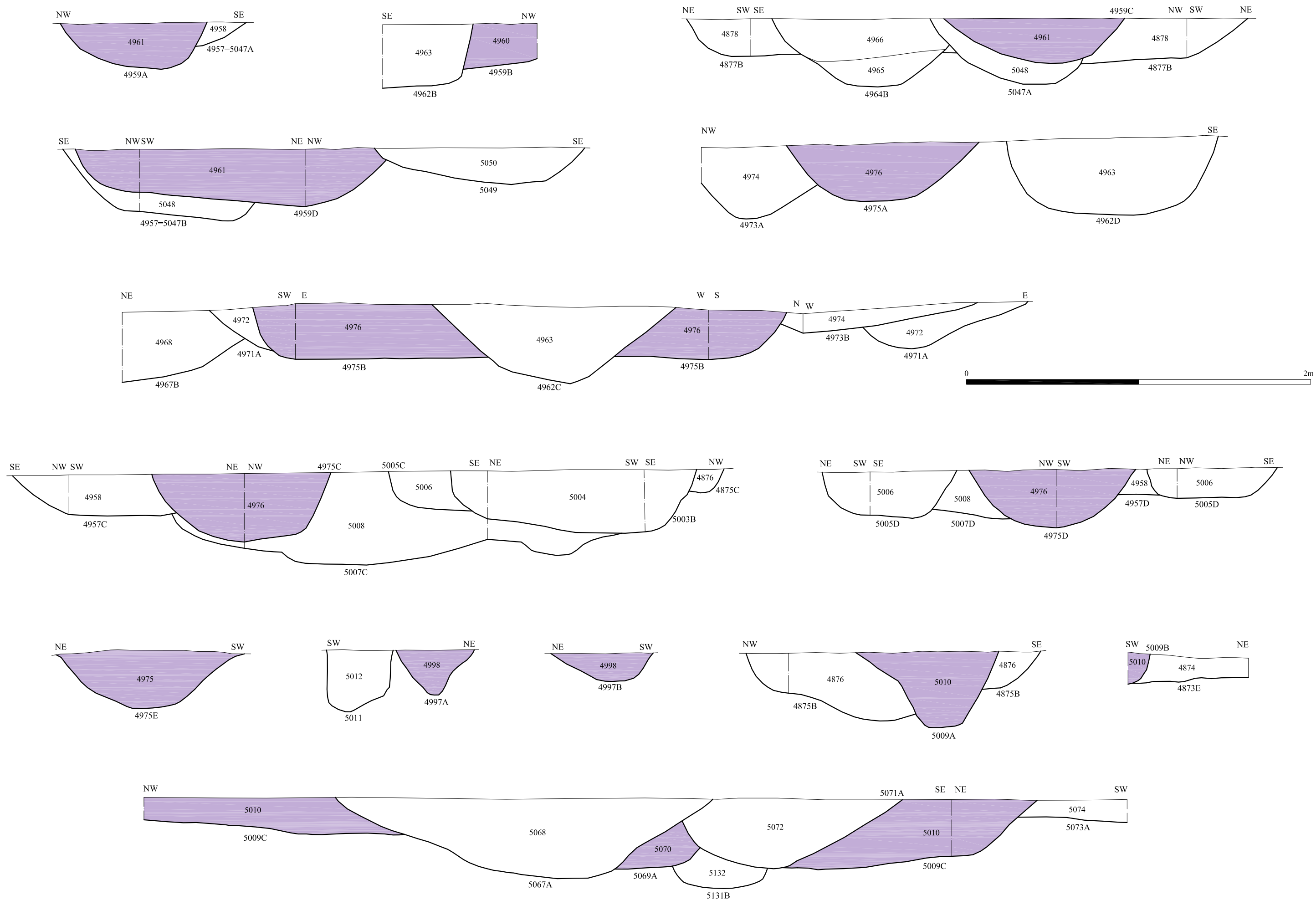


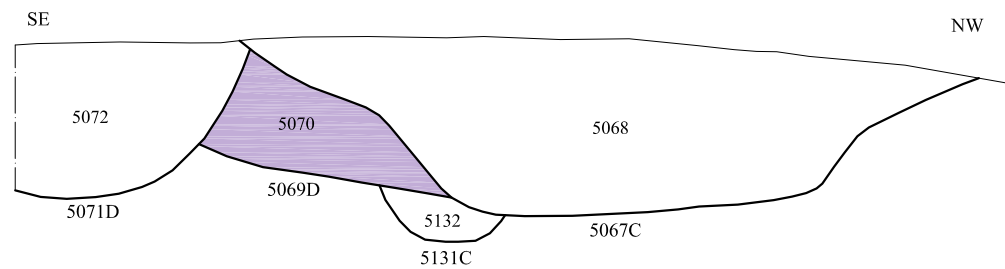
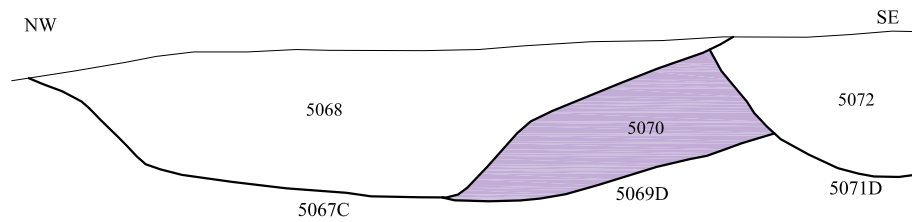
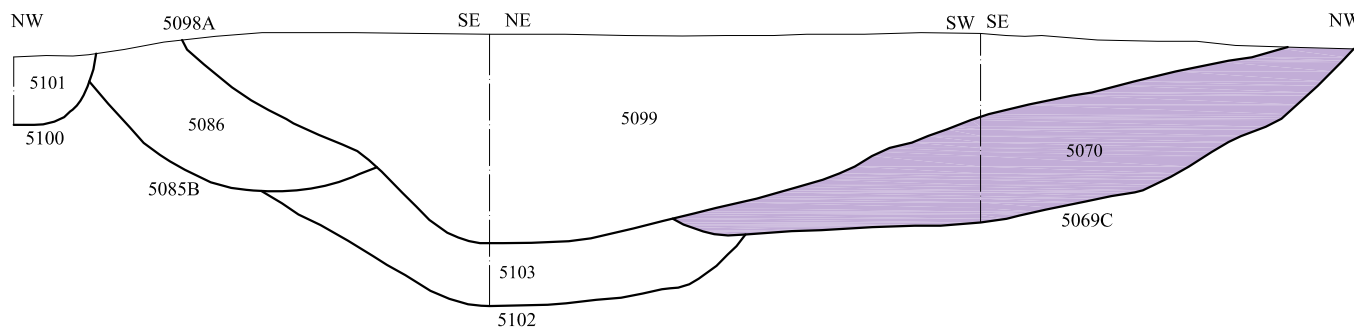
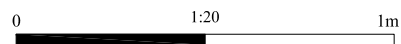
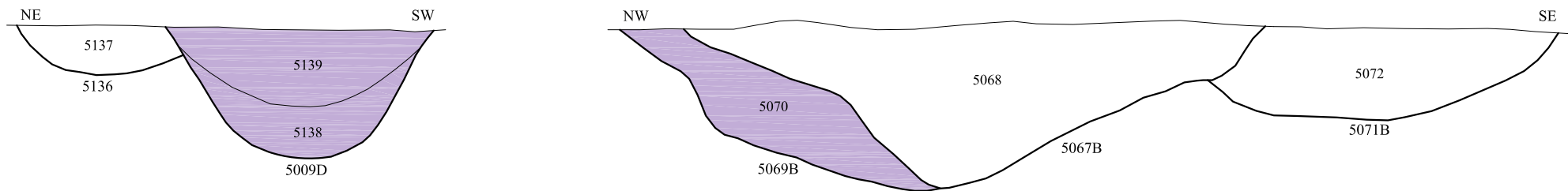


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Fig. 106 Sections
Scale 1:20 at A4



Associated Roman Sub-Phase 4 ditches (south-eastern quadrant)

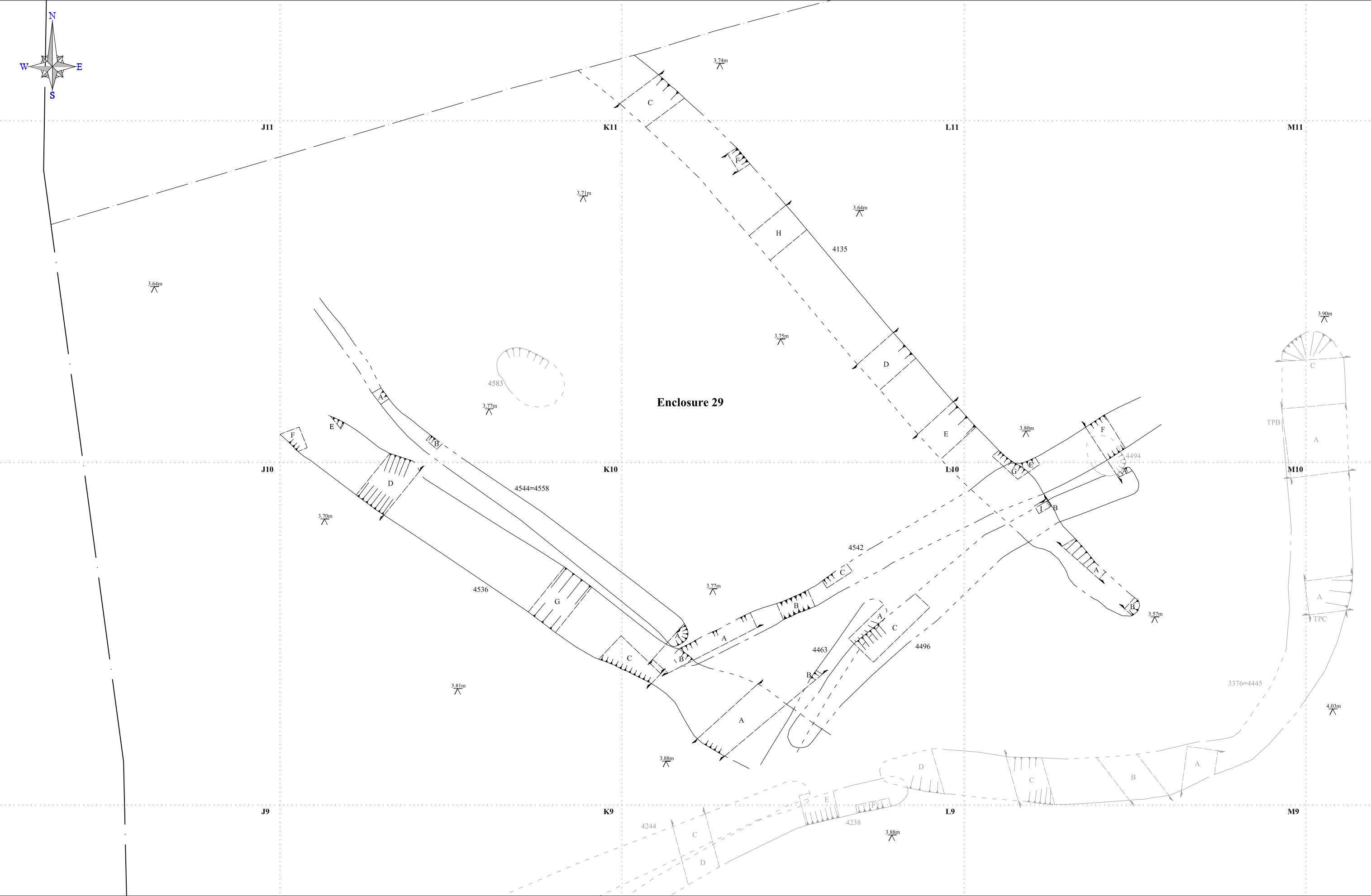




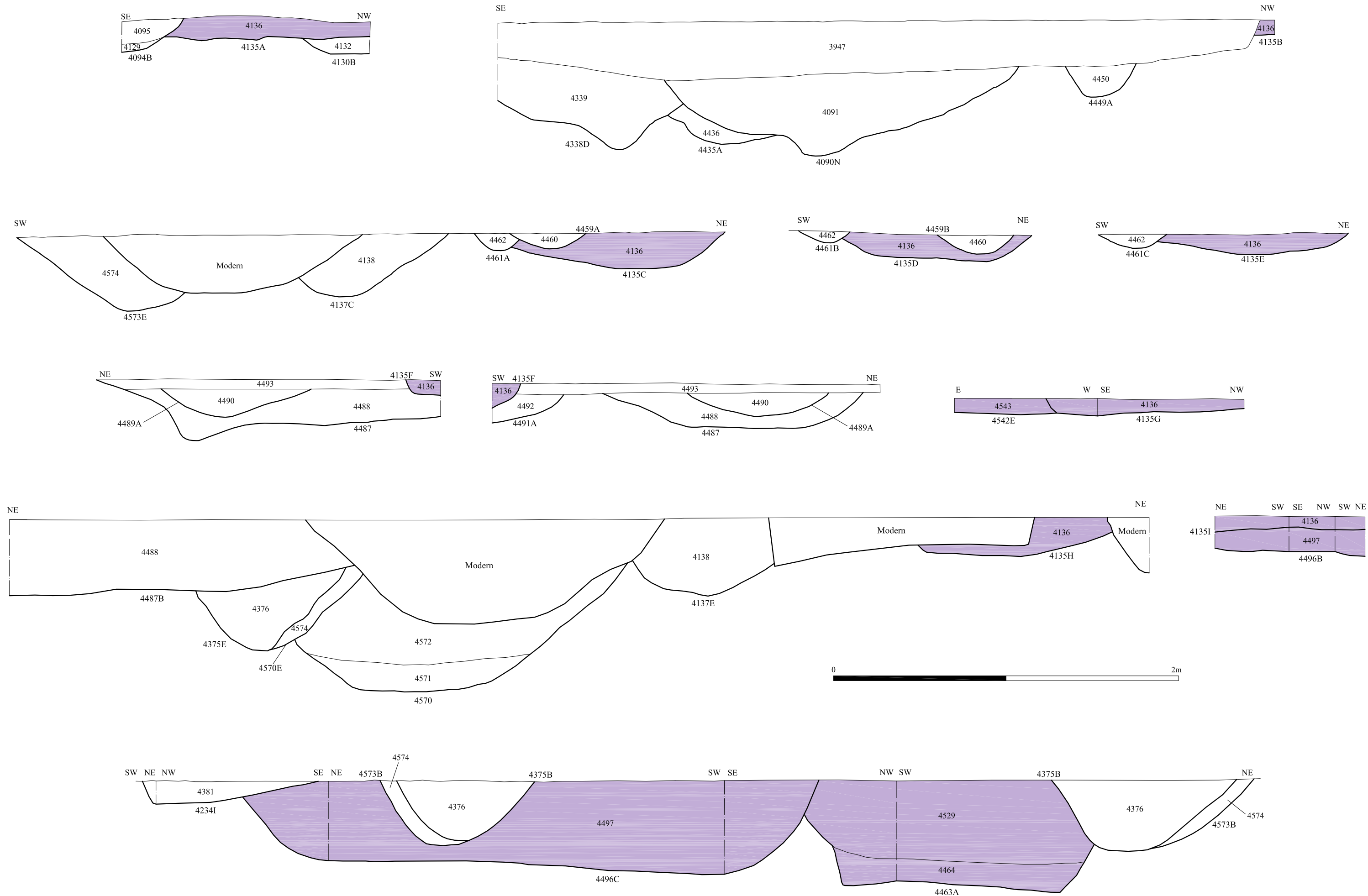
Archaeological Solutions Ltd

Fig. 109 Sections

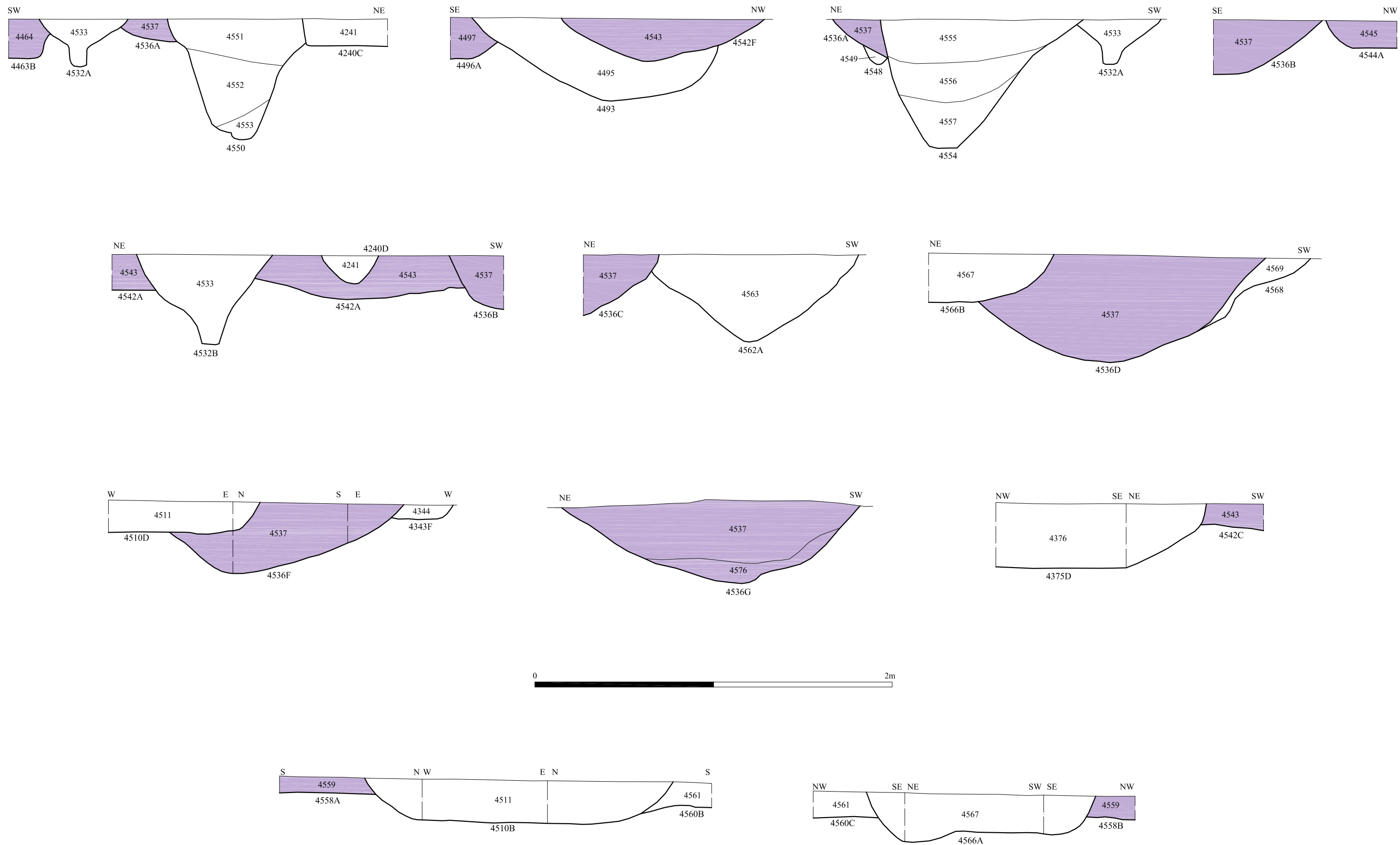
Scale 1:20 at A4



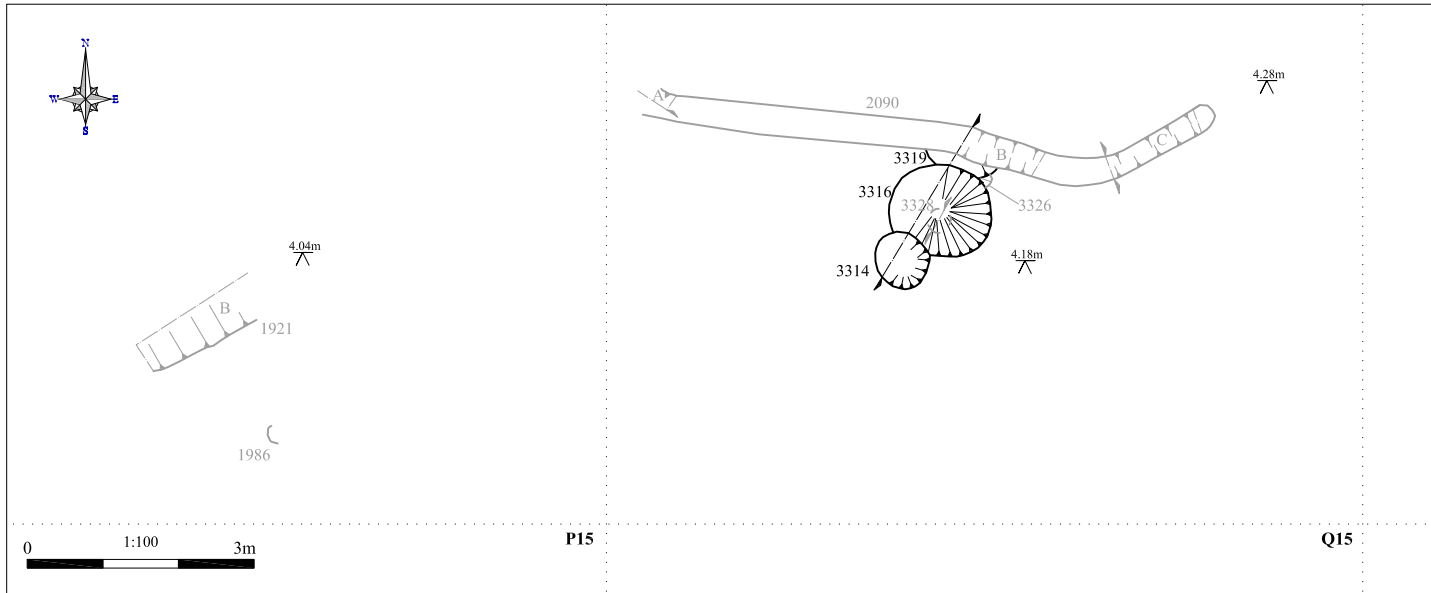
Roman Sub-Phase 4 Enclosure 29 (south-western quadrant)



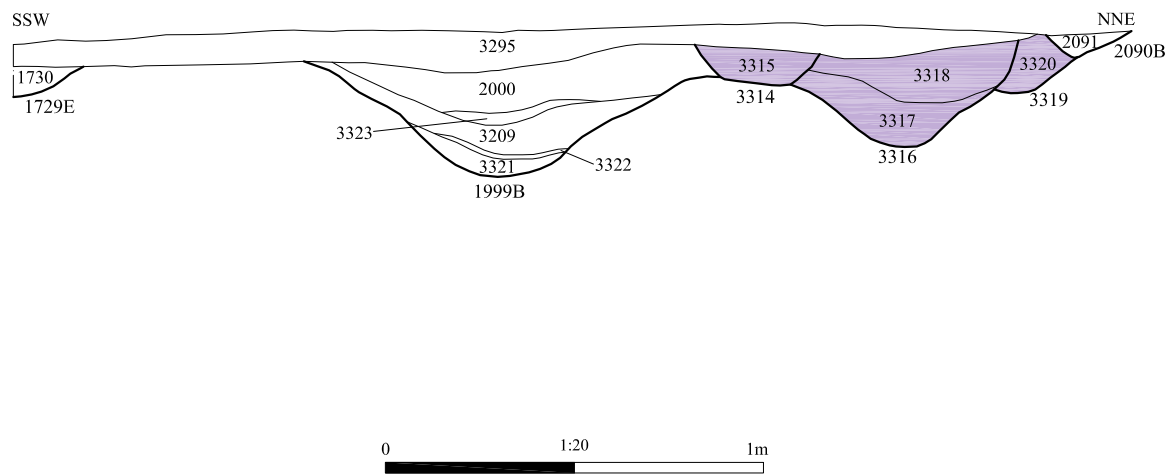
Archaeological Solutions Ltd
Fig. 111 Sections
Scale 1:20 at A3

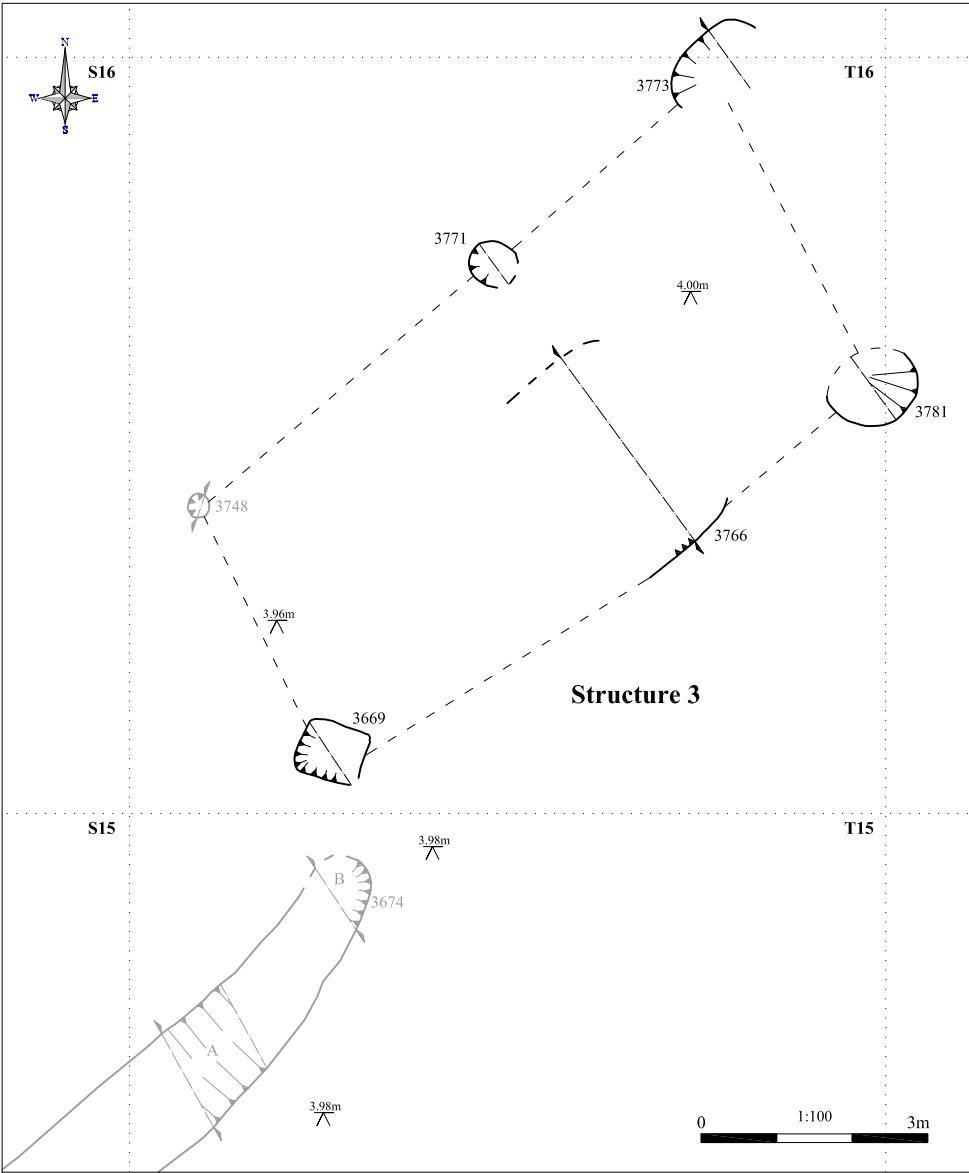


Archaeological Solutions Ltd
Fig. 112 Sections
 Scale 1:20 at A3

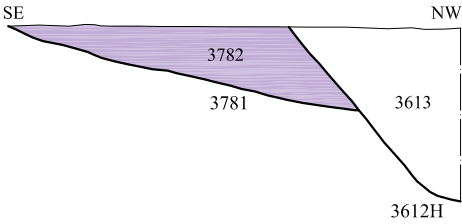
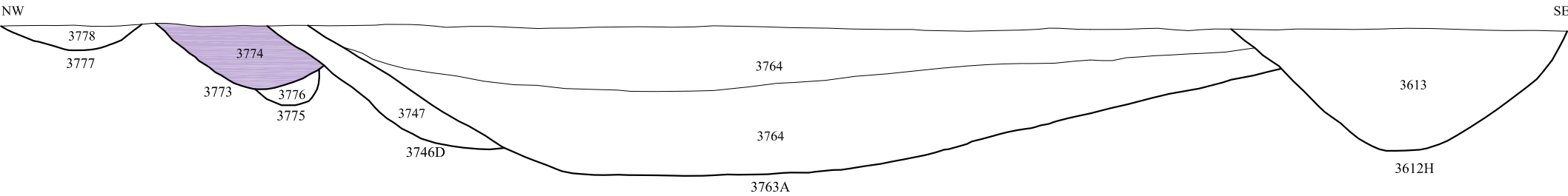
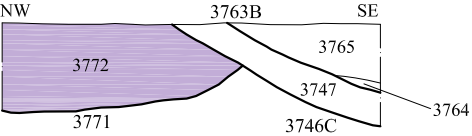
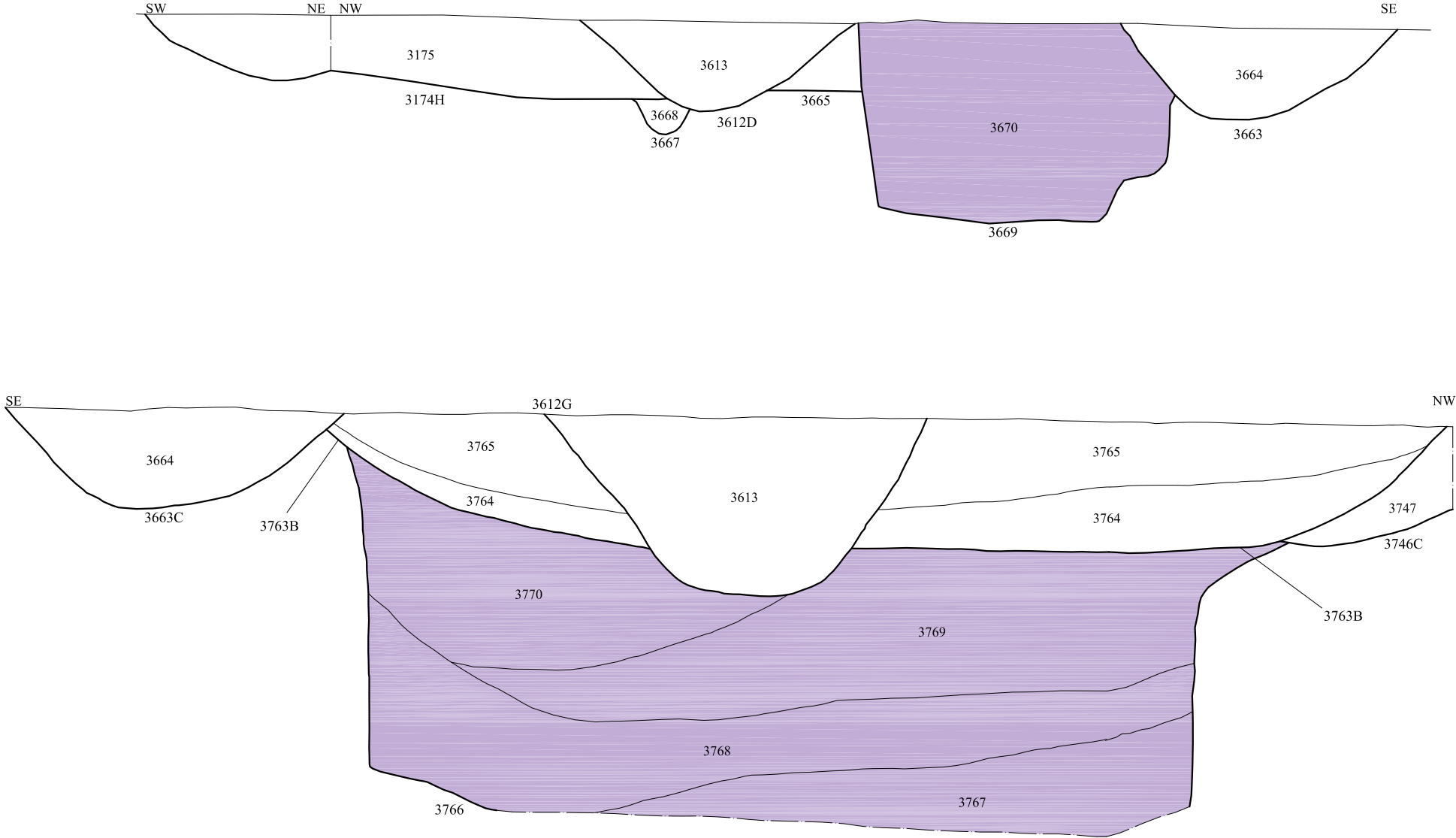


Roman Sub-Phase 4 pit cluster (1/2)



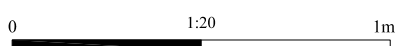
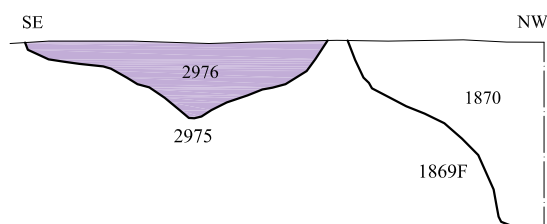
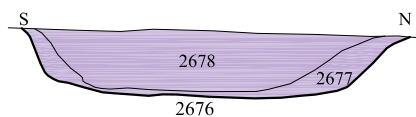


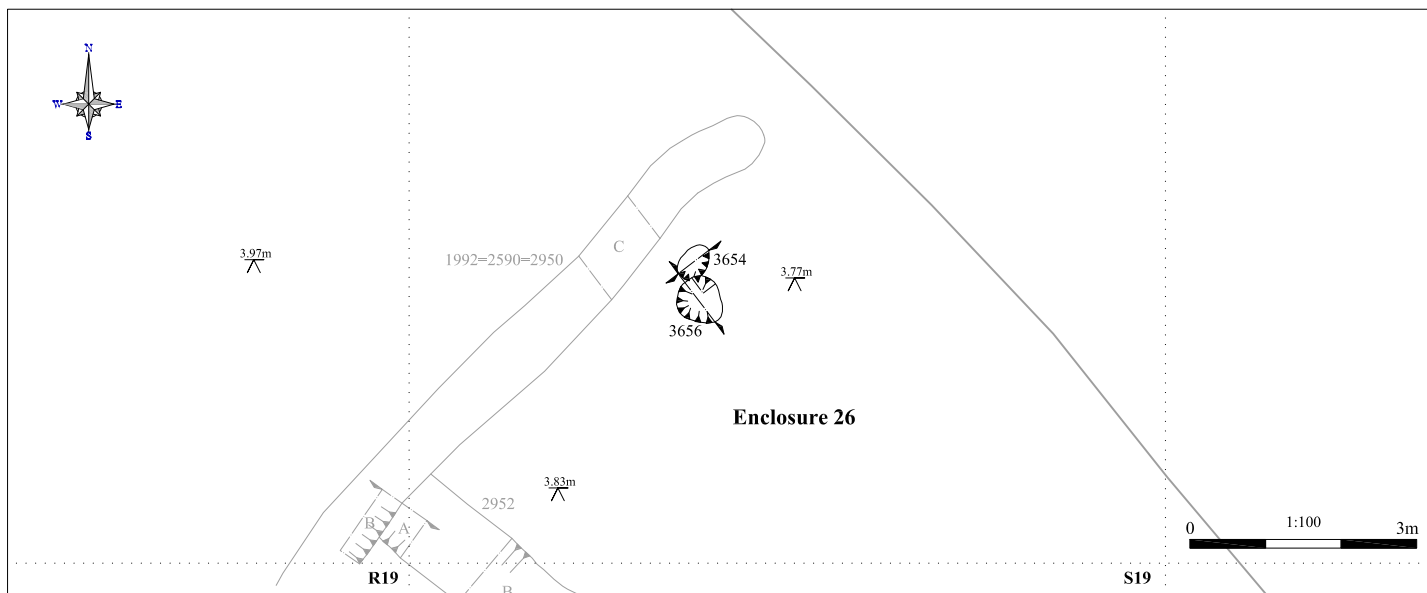
Roman Sub-Phase 4 pit cluster (2/2)



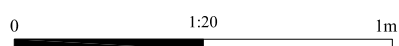
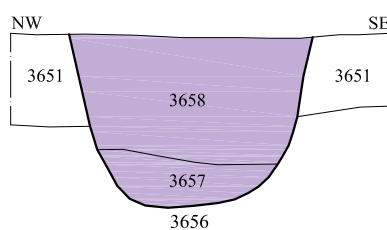
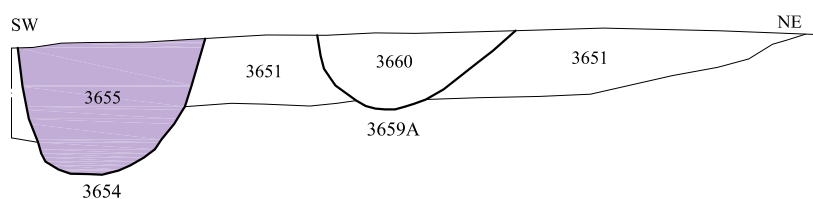


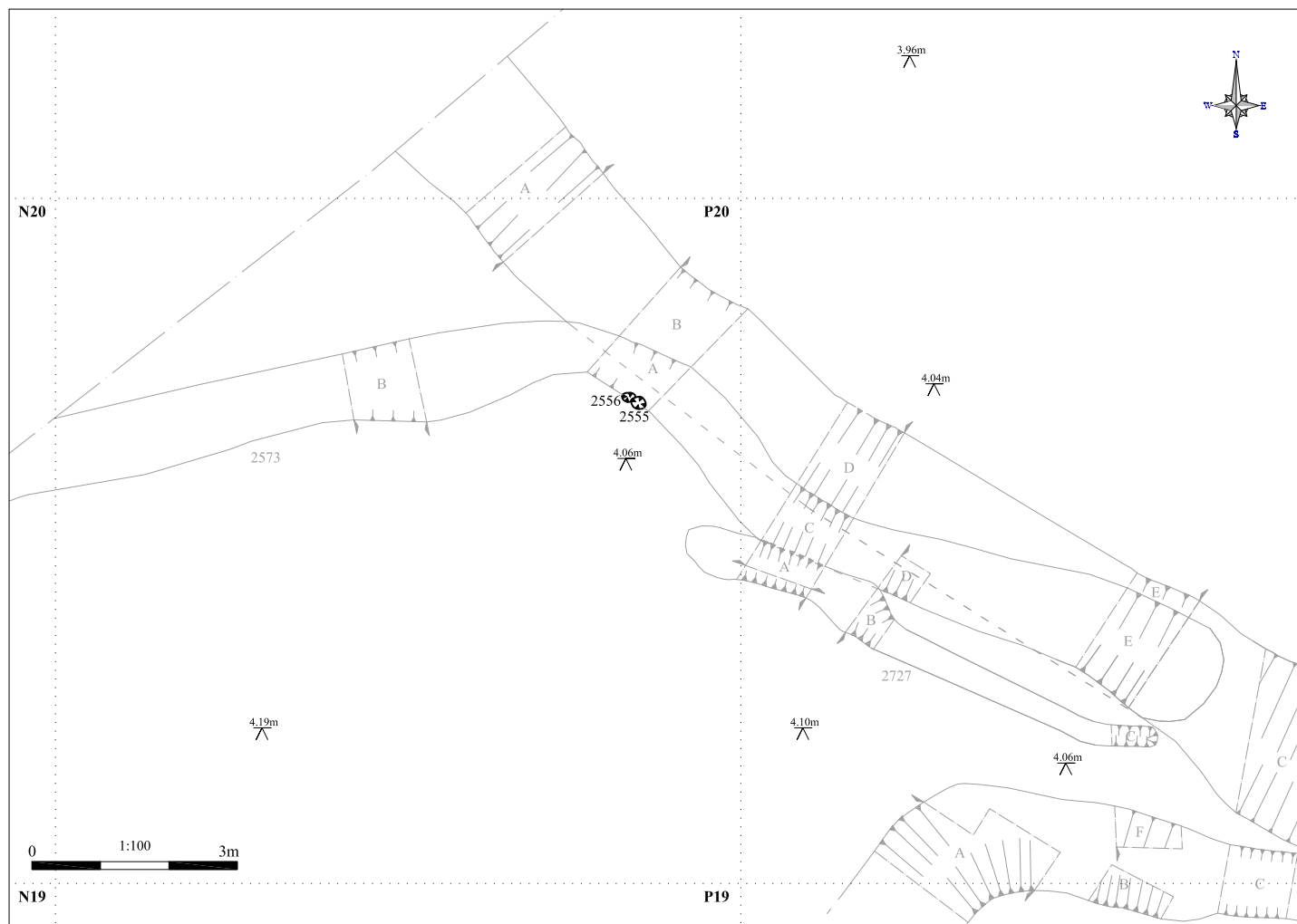
Roman Sub-Phase 4 pit pair (1/2)



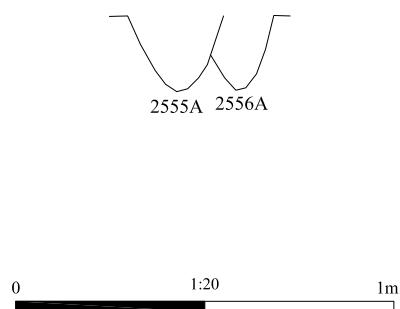


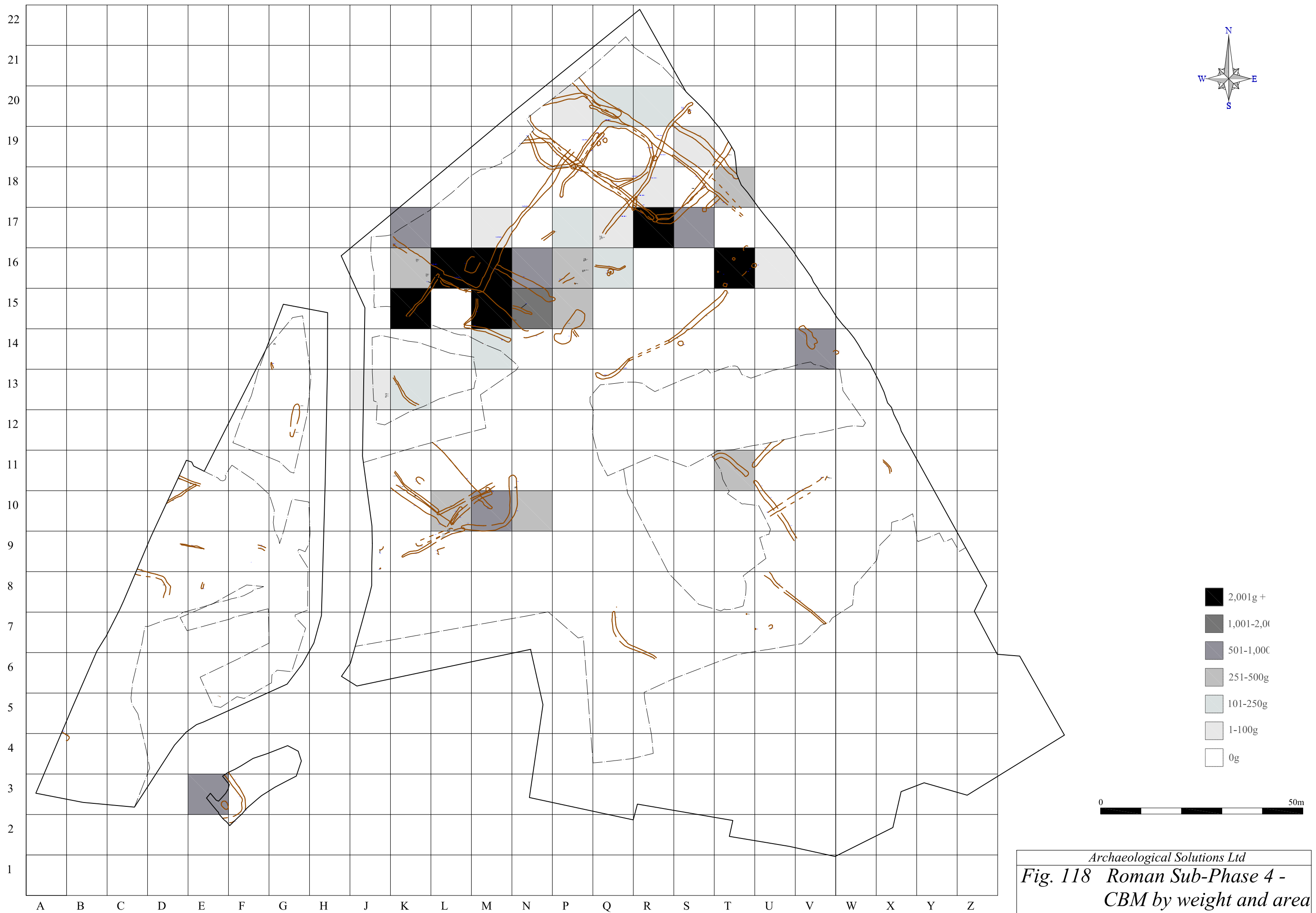
Roman Sub-Phase 4 pit pair (2/2)



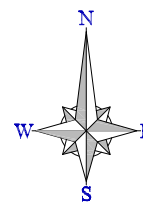
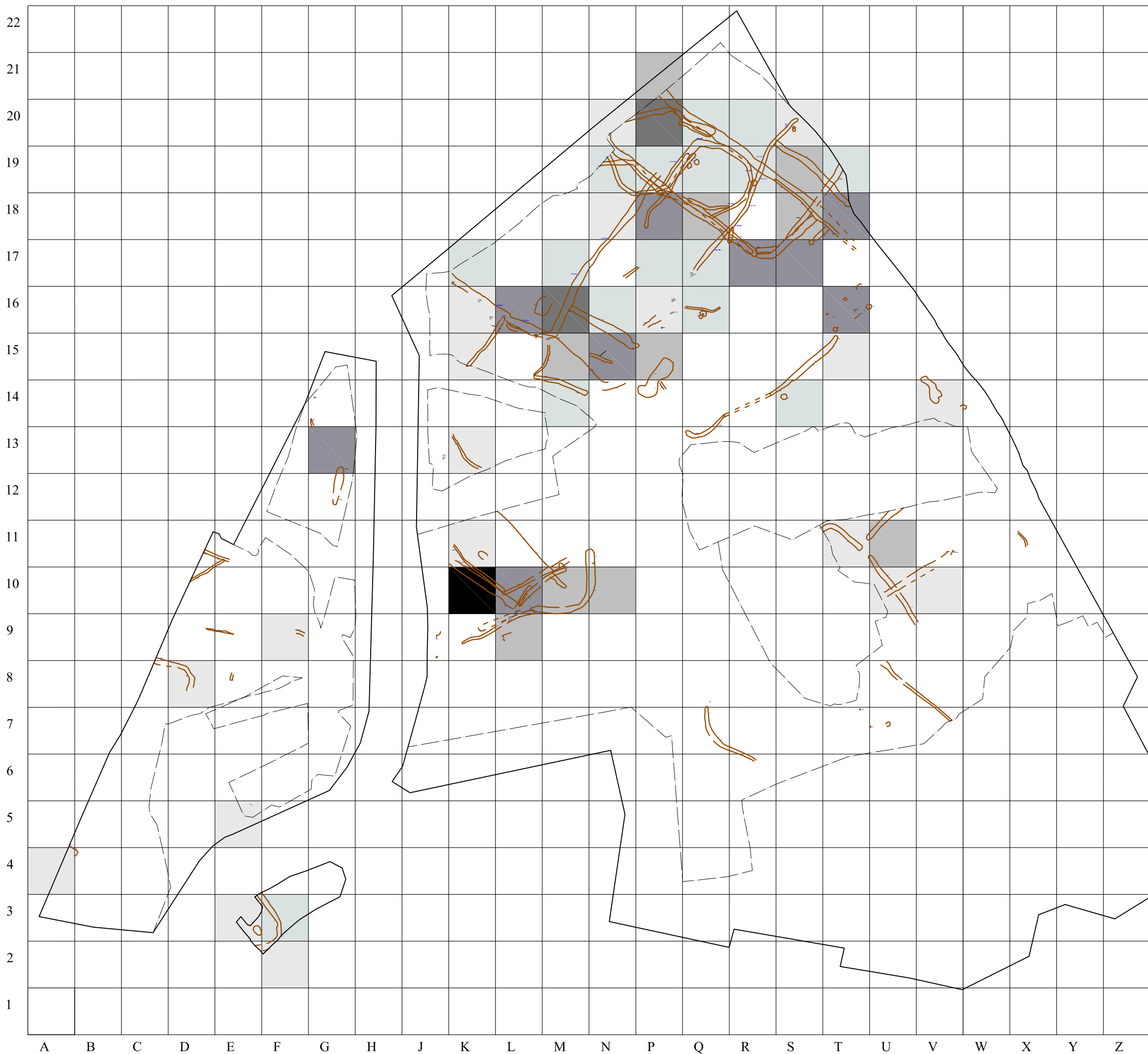


Possible Roman Sub-Phase 4 cremations

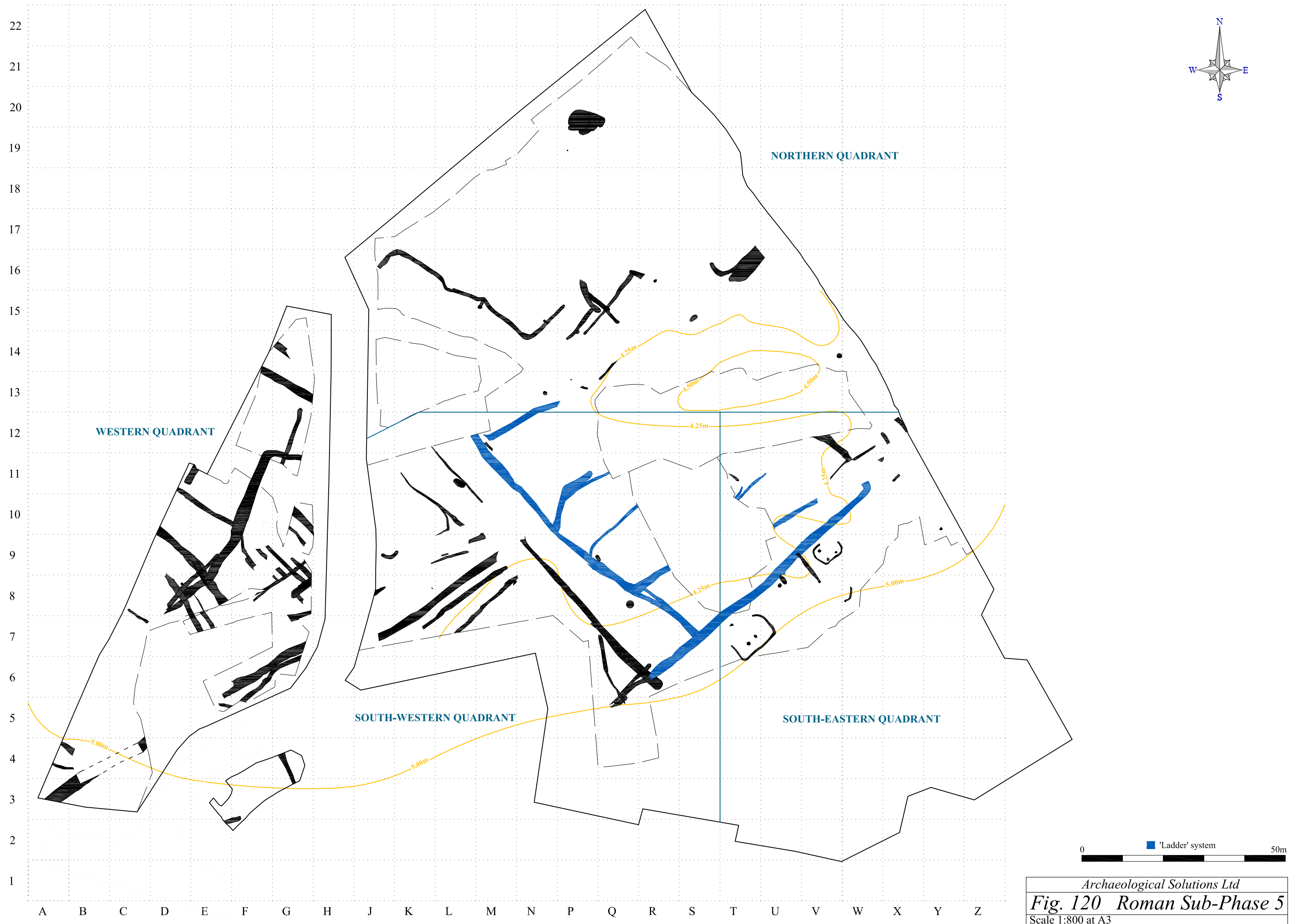


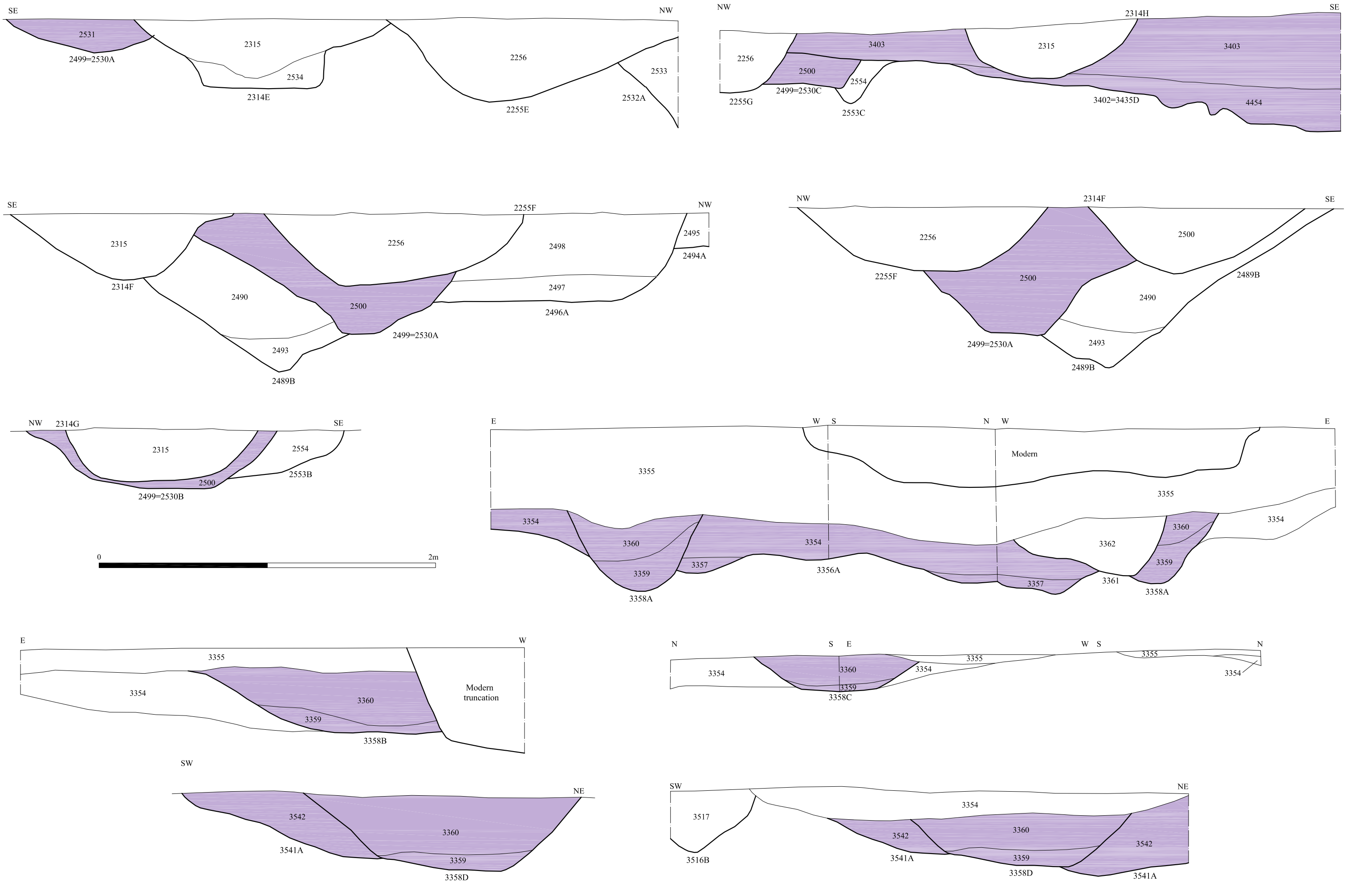


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**Fig. 118 Roman Sub-Phase 4 -
CBM by weight and area**
Scale 1:800 at A3

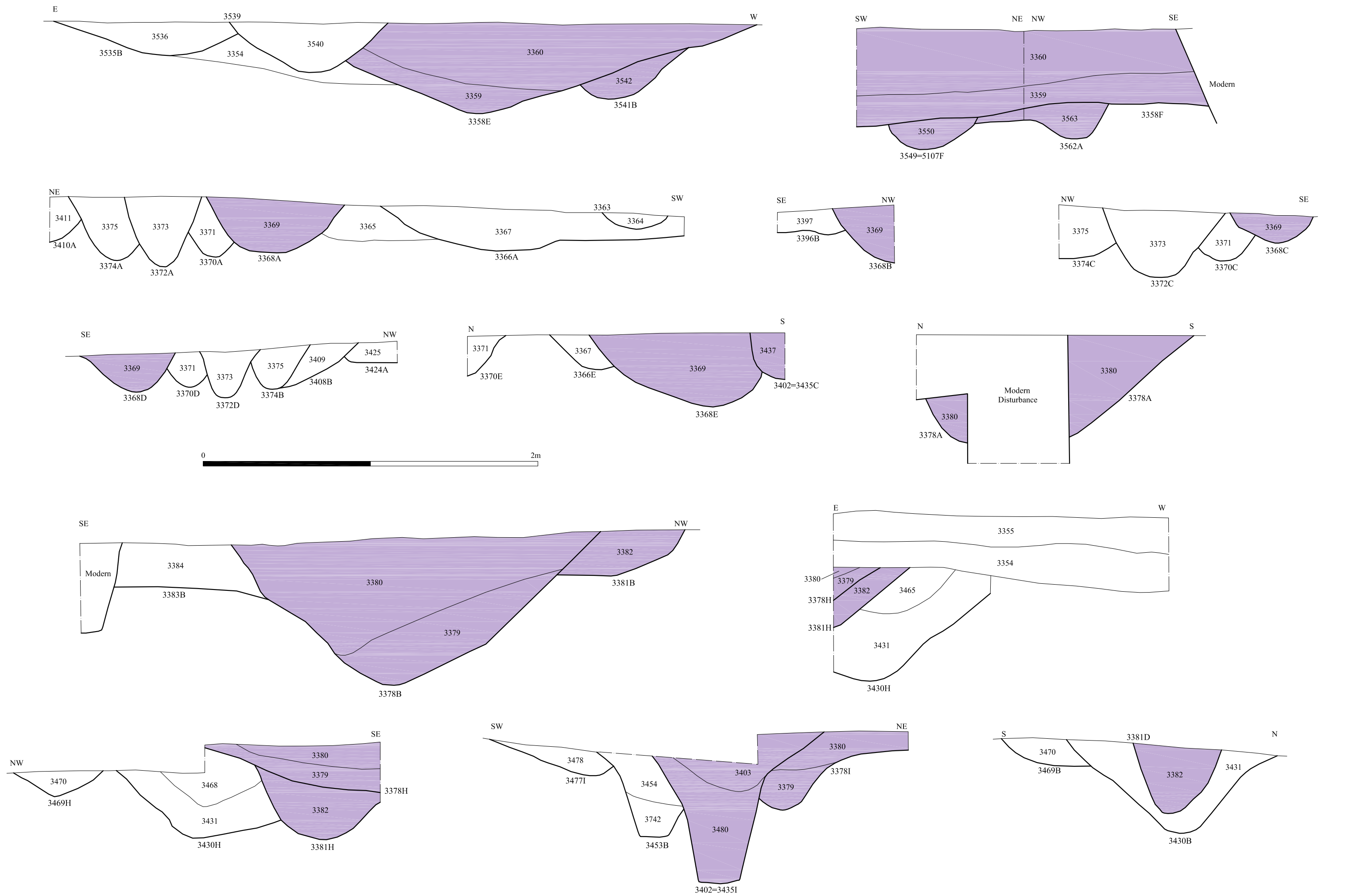


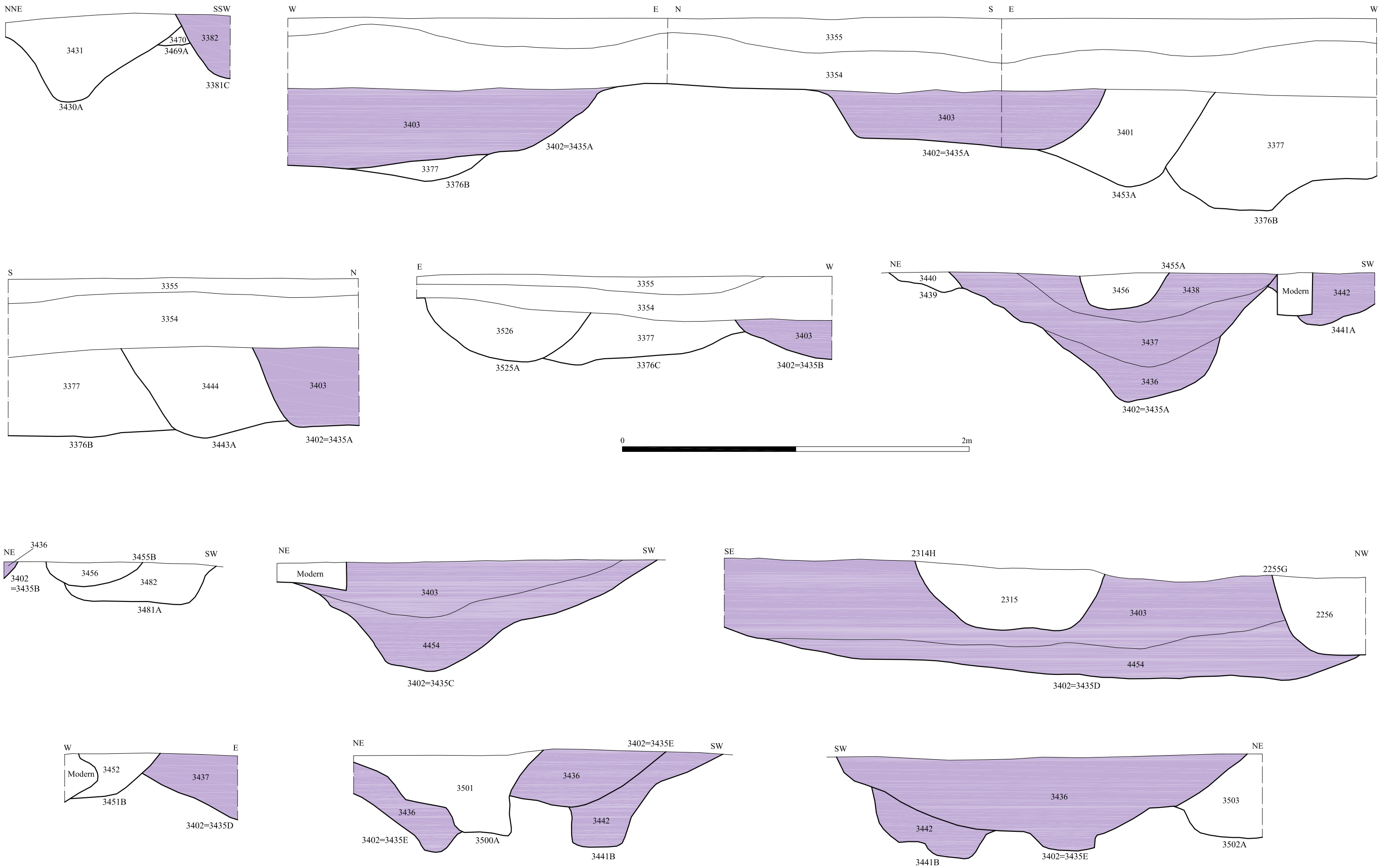
Archaeological Solutions Ltd
**Fig. 119 Roman Sub-Phase 4 -
Pottery by Weight and Area**
Scale 1:800 at A3



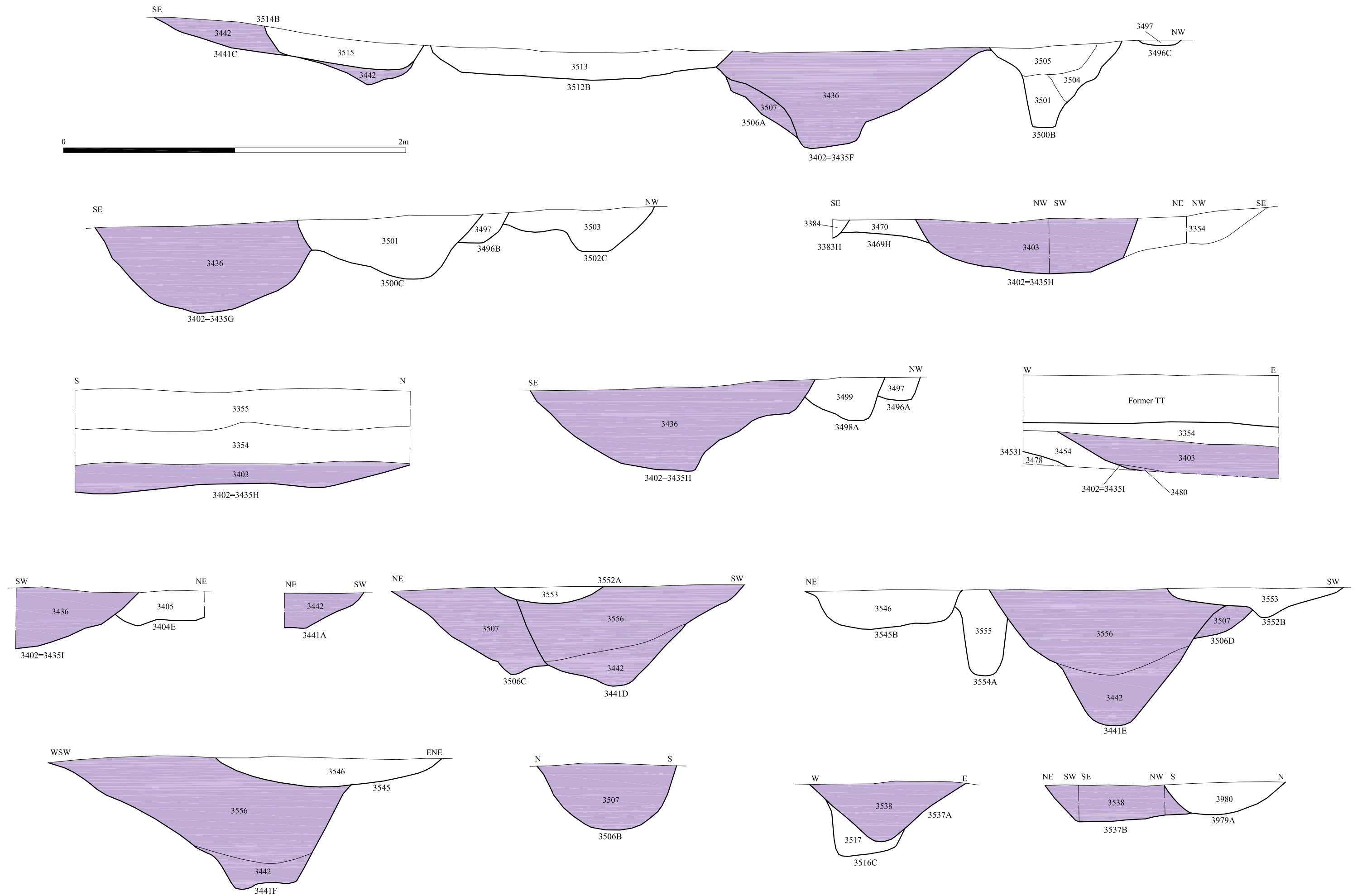


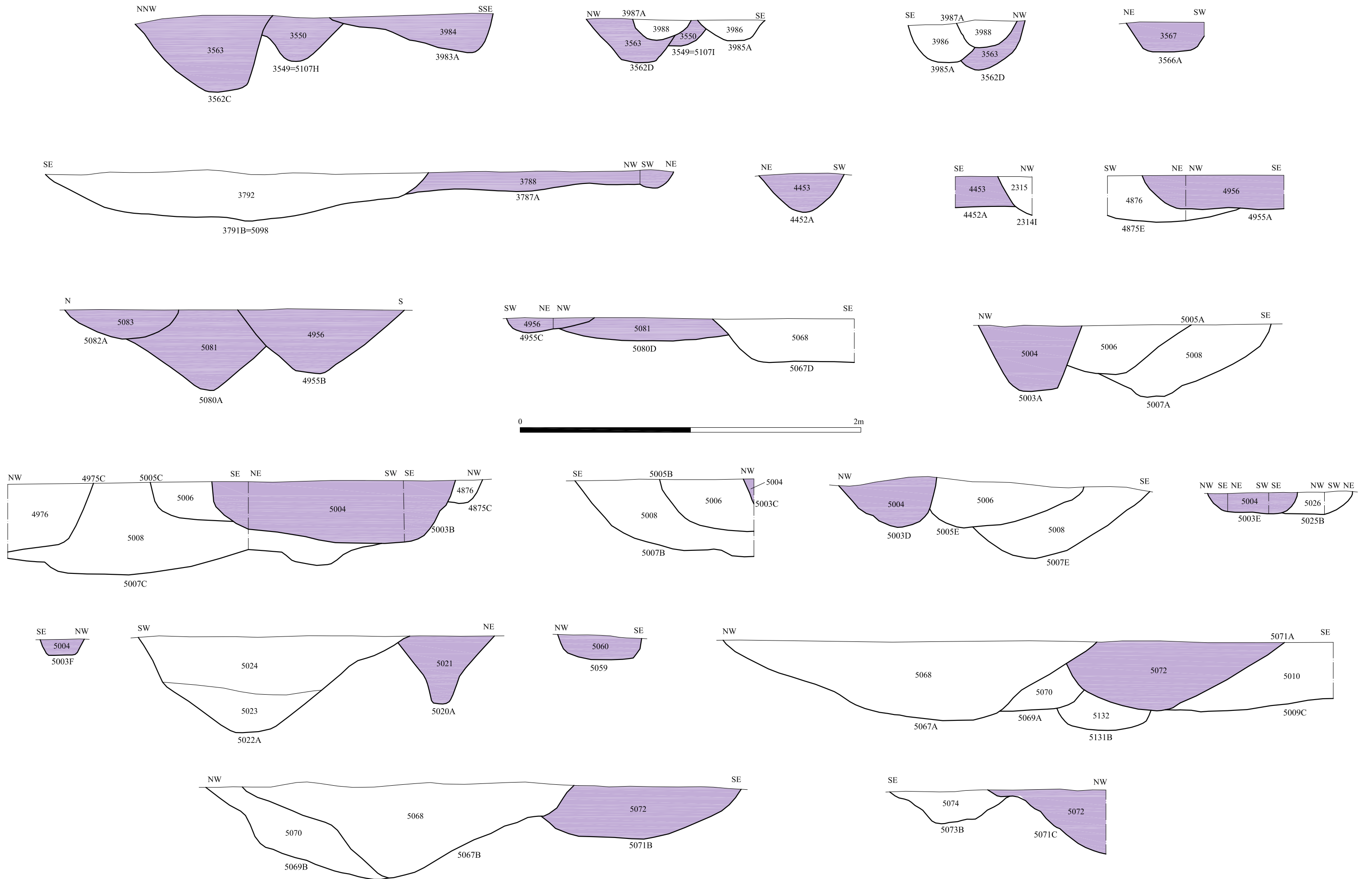
Archaeological Solutions Ltd
Fig. 122 Sections
 Scale 1:20 at A3

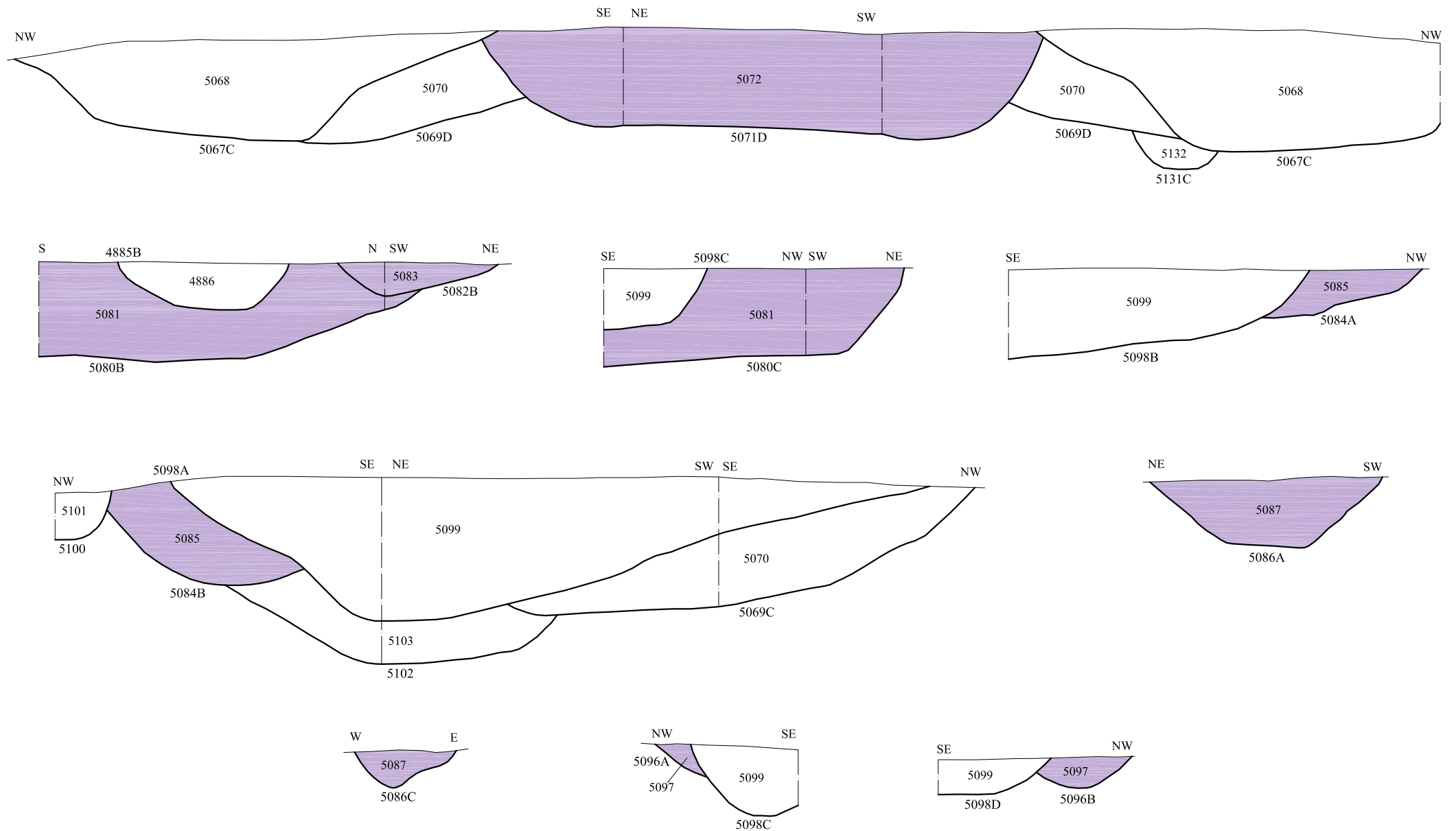




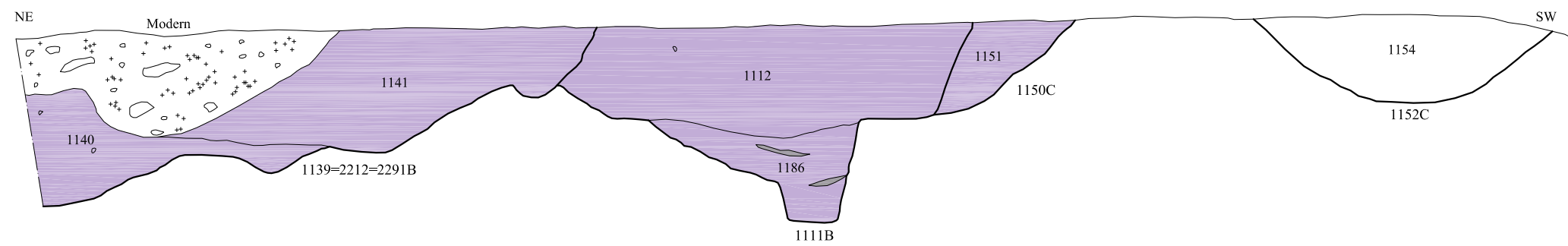
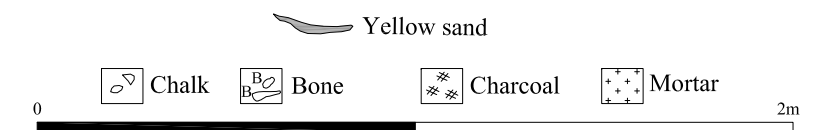
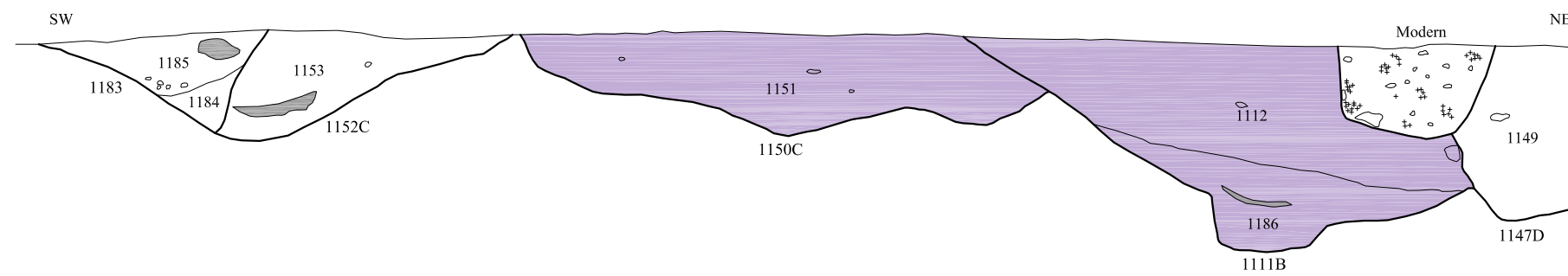
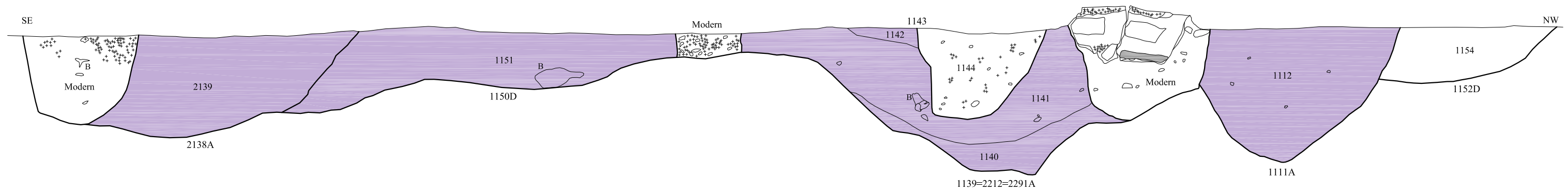
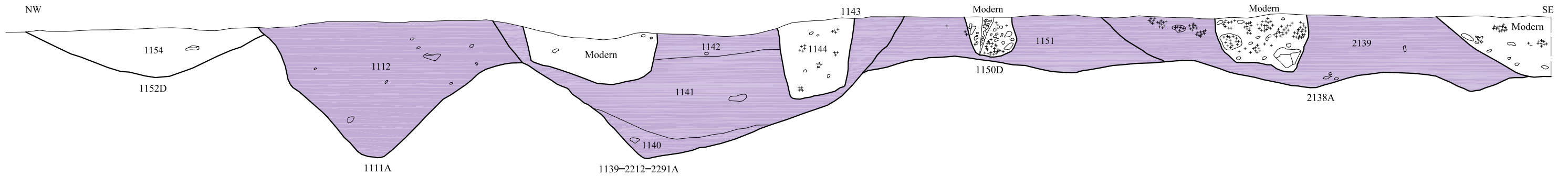
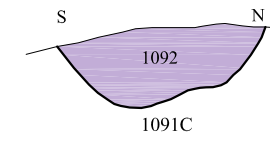
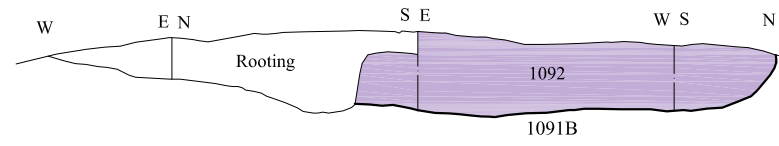
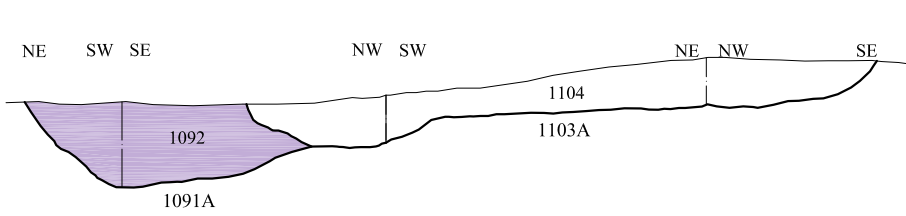
Archaeological Solutions Ltd
Fig. 124 Sections
 Scale 1:20 at A3

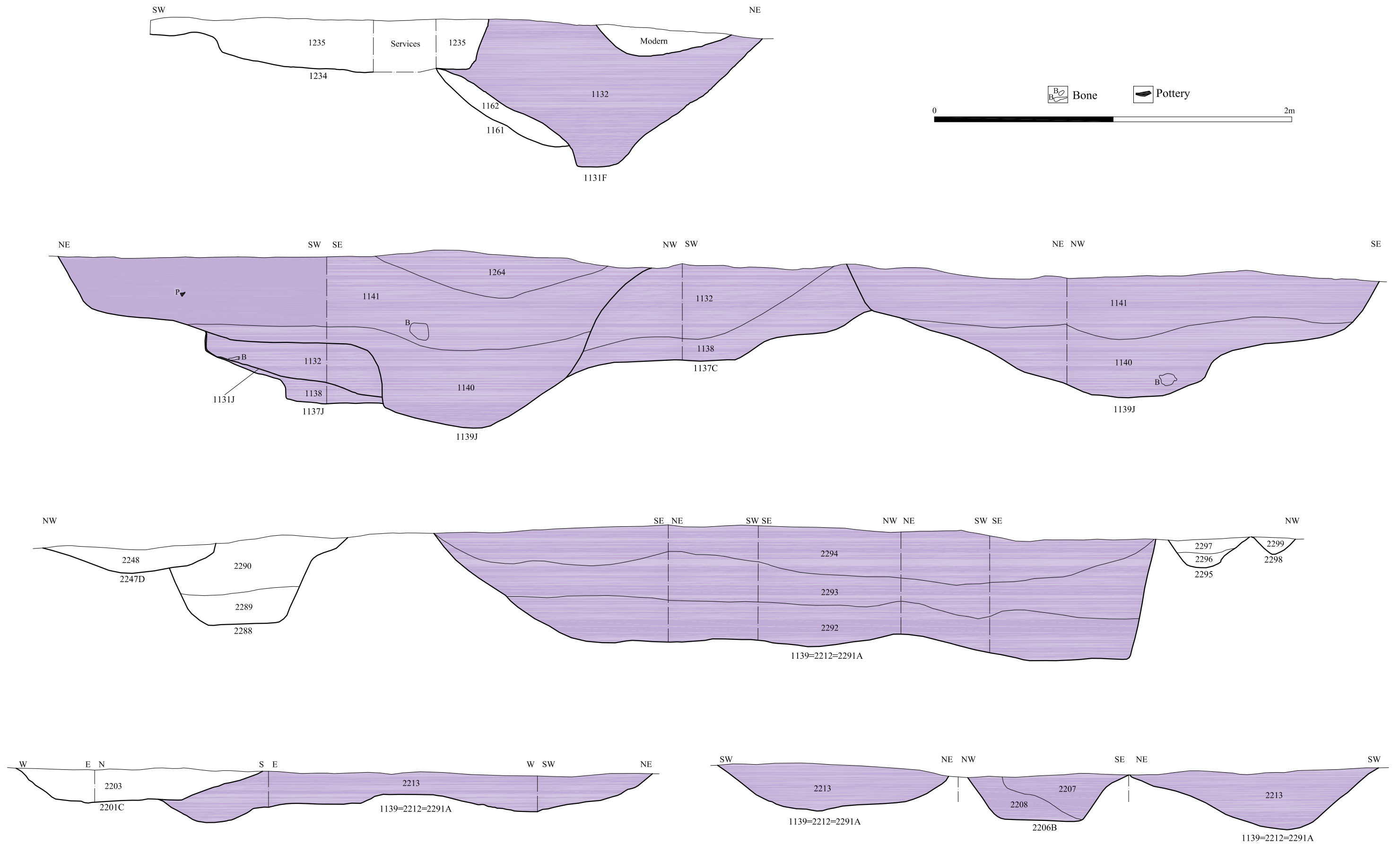


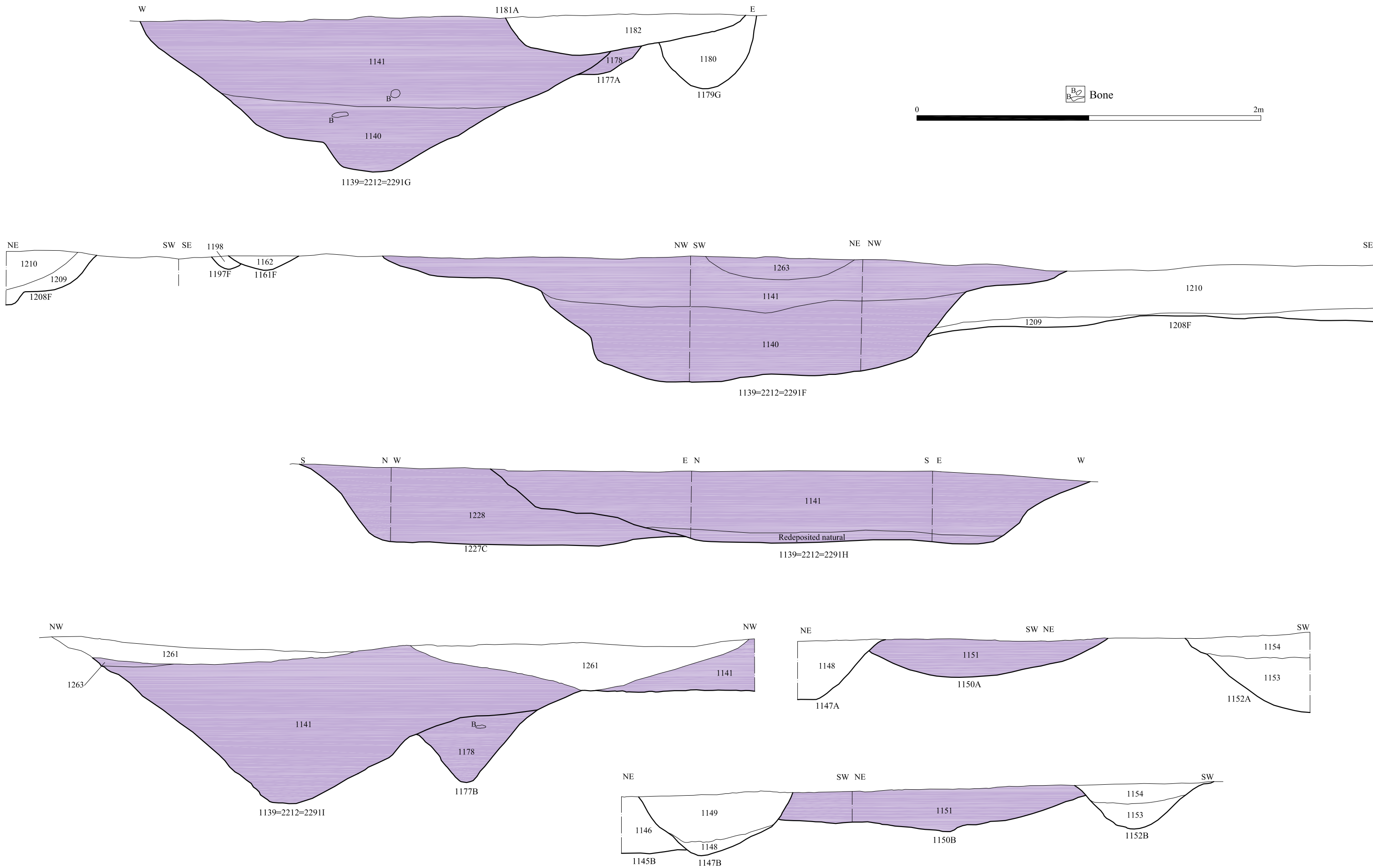




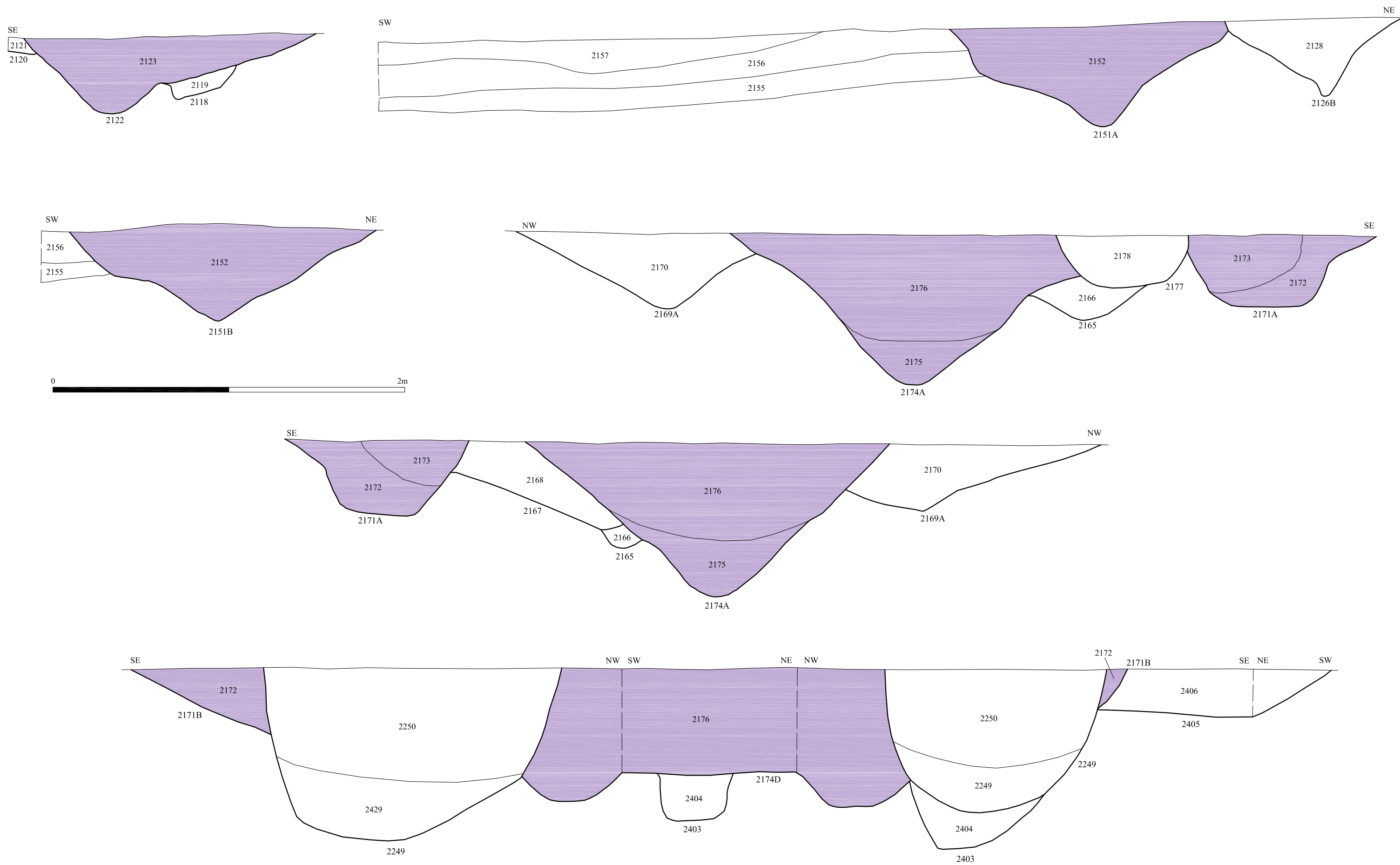
0 2m

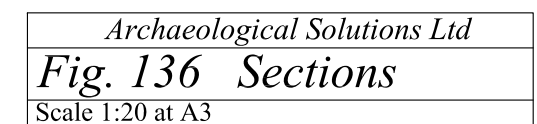
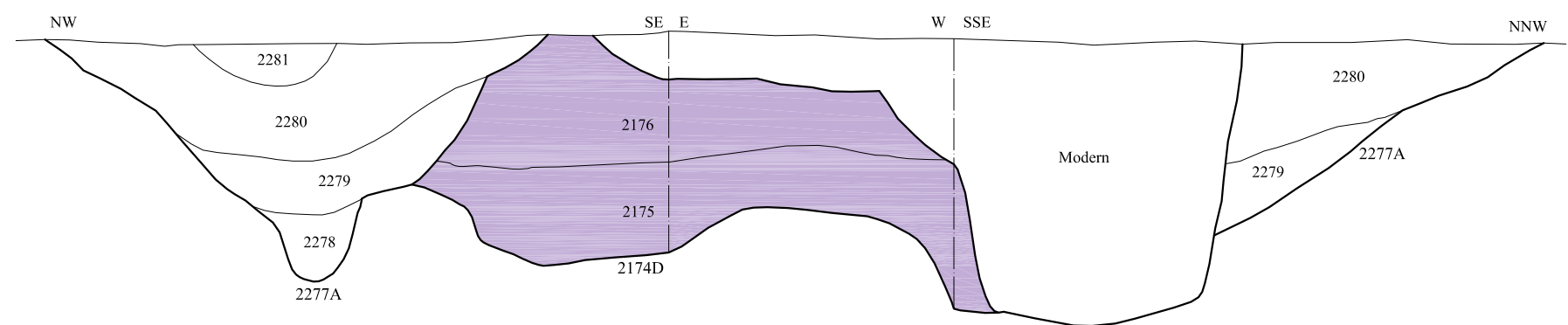
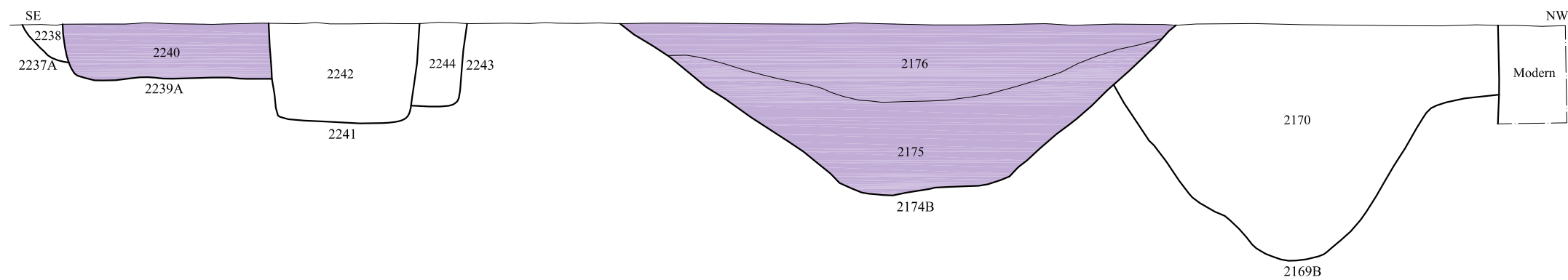


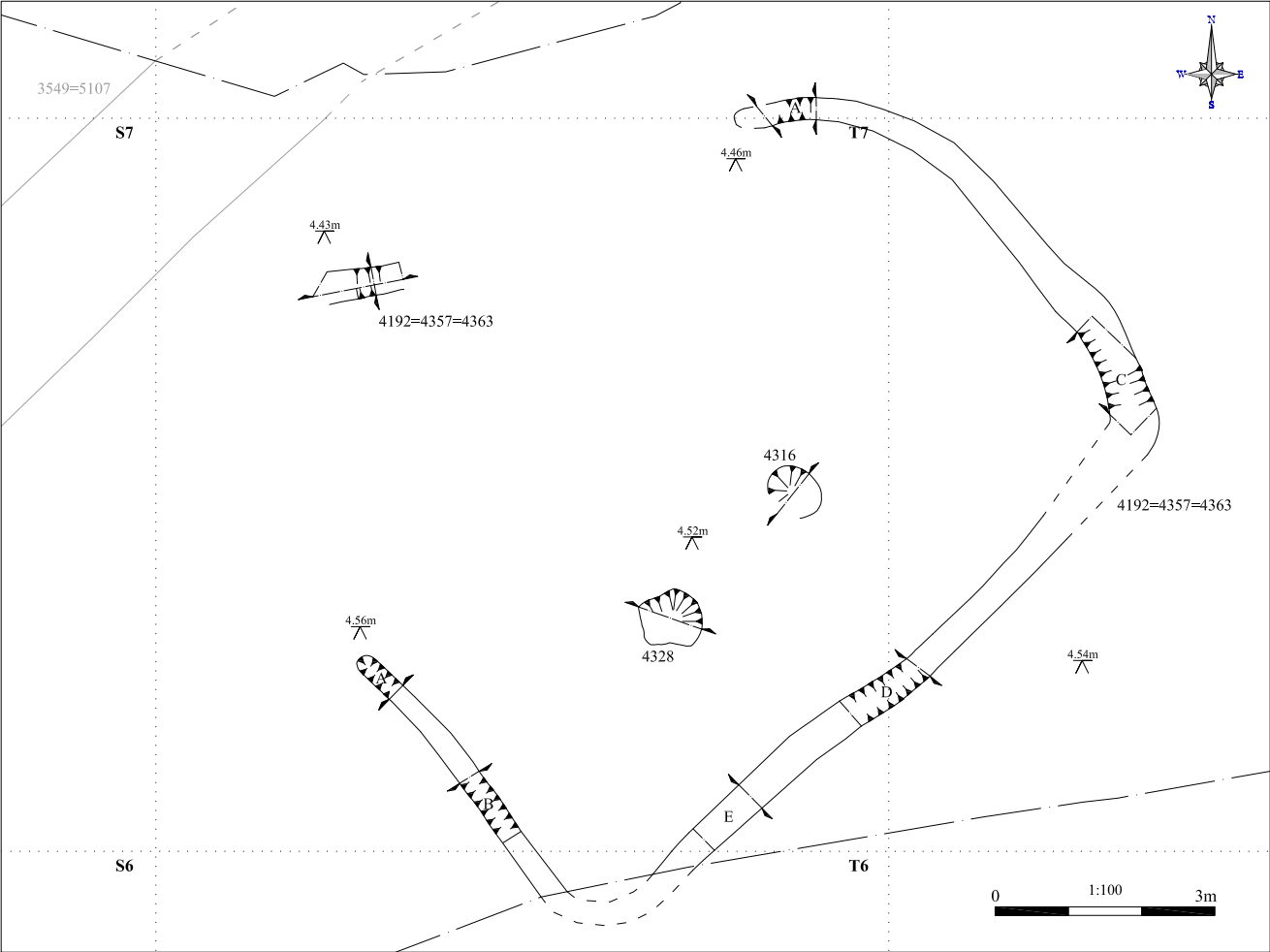




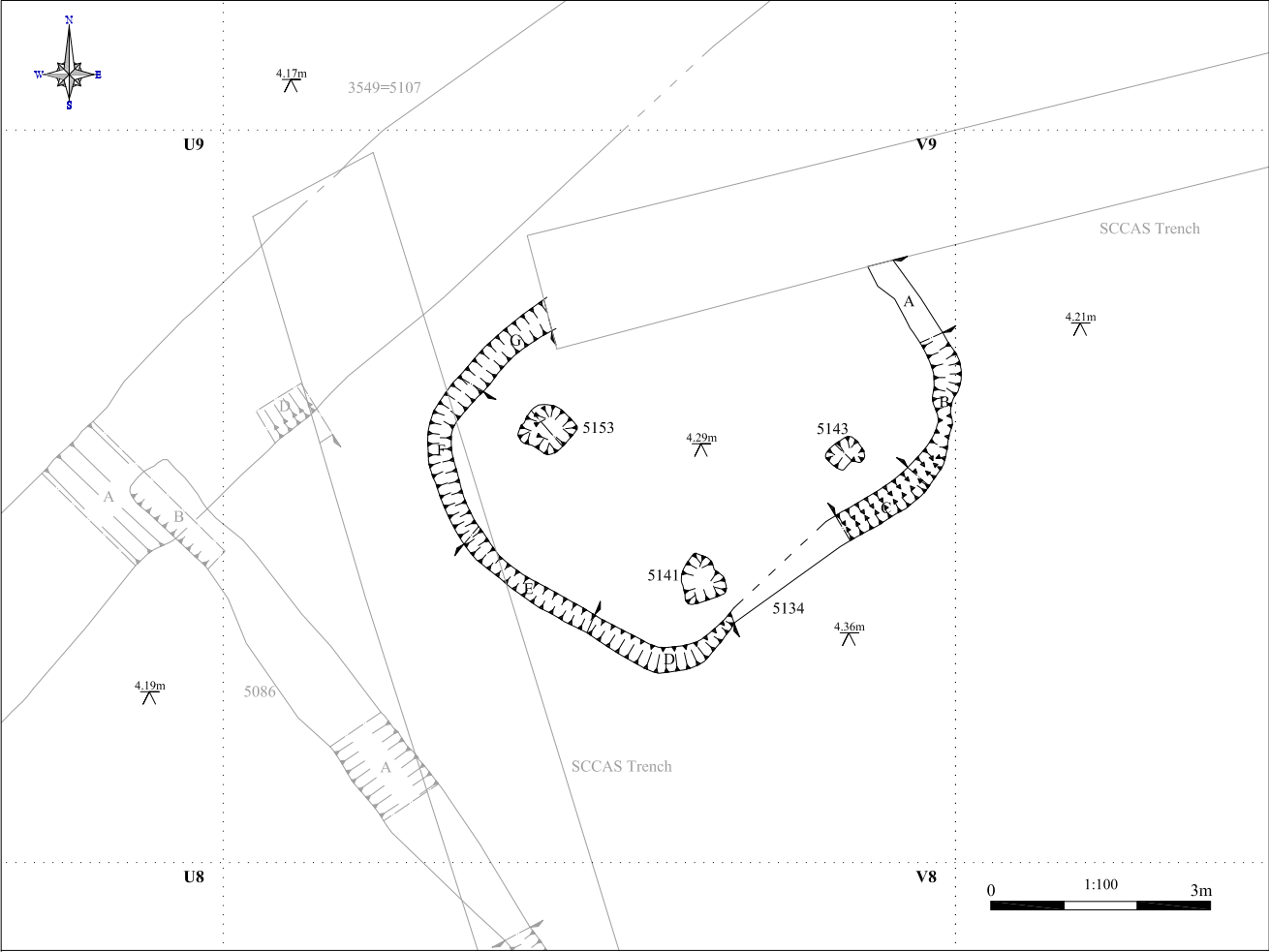
Archaeological Solutions Ltd
Fig. 133 Sections
Scale 1:20 at A3



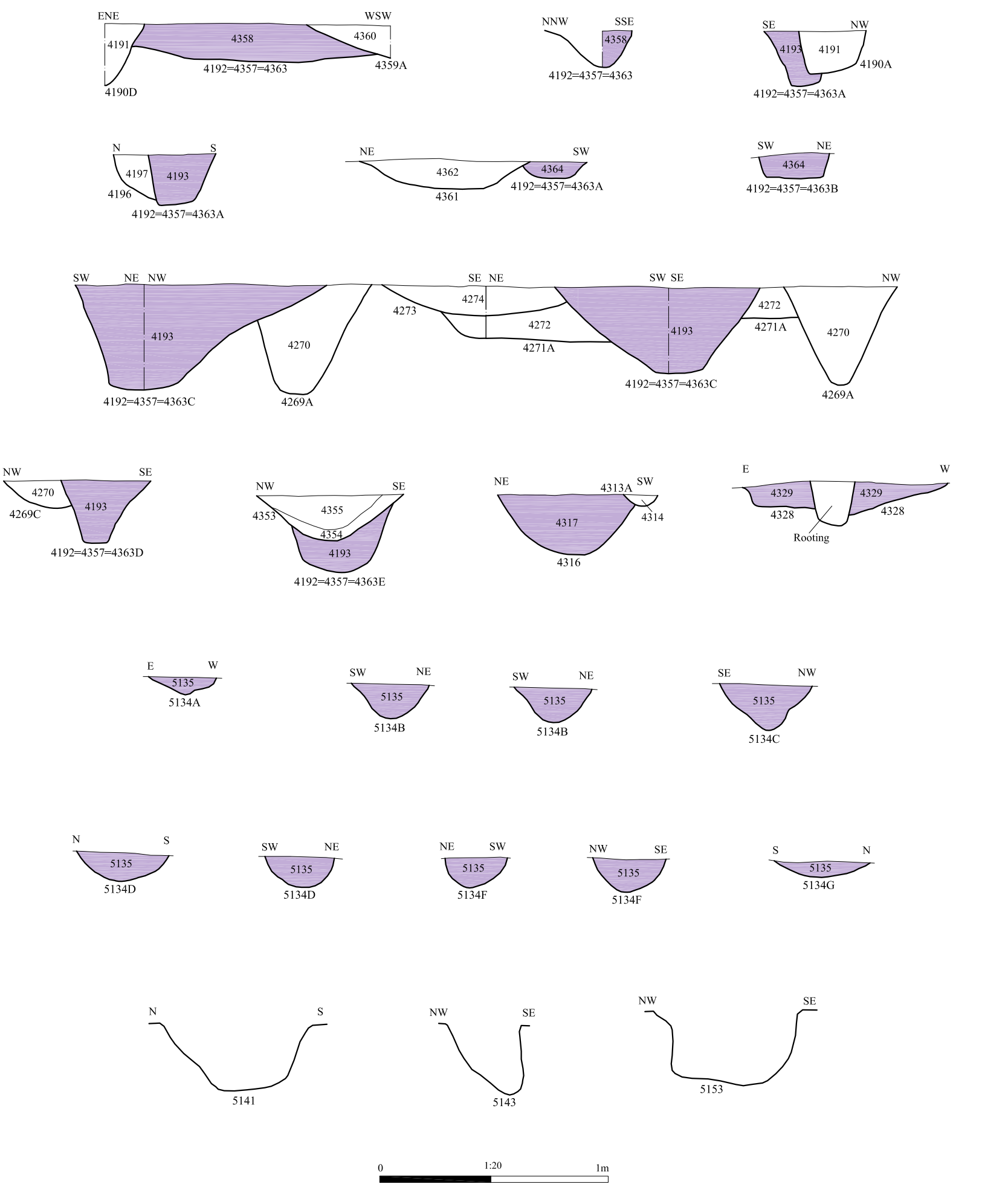


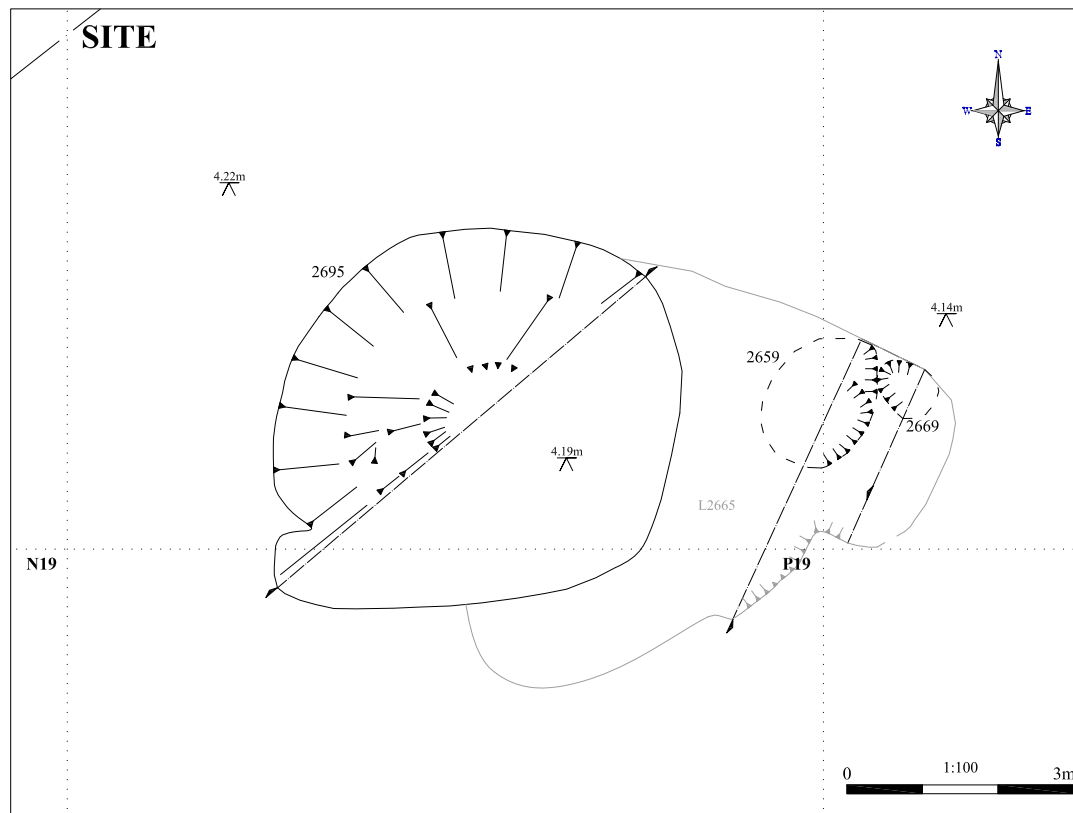


Roman Sub-Phase 5 Structure 4

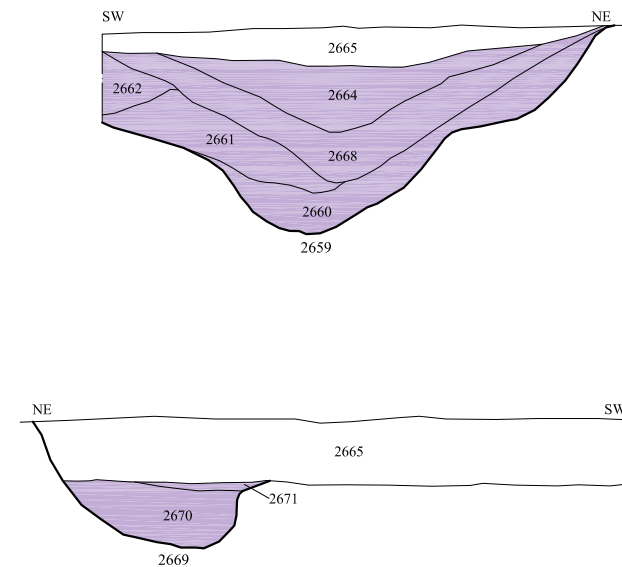


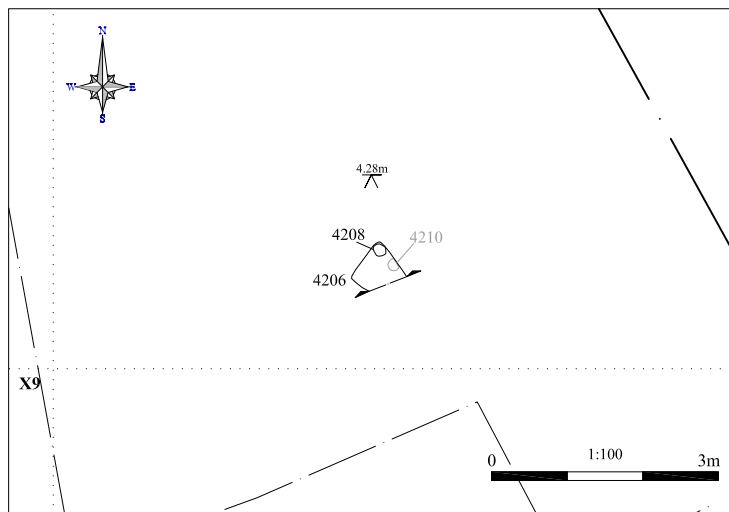
Roman Sub-Phase 5 Structure 5



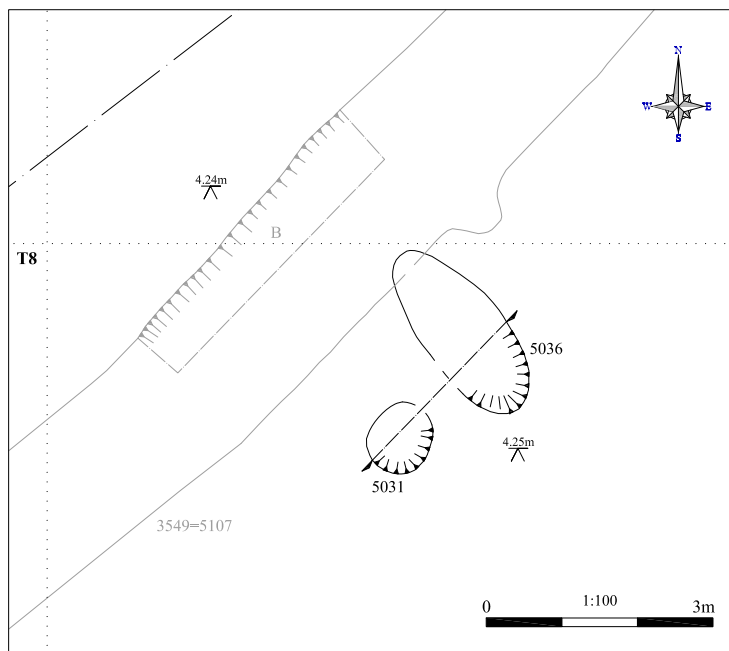


Roman Sub-Phase 5 pit cluster

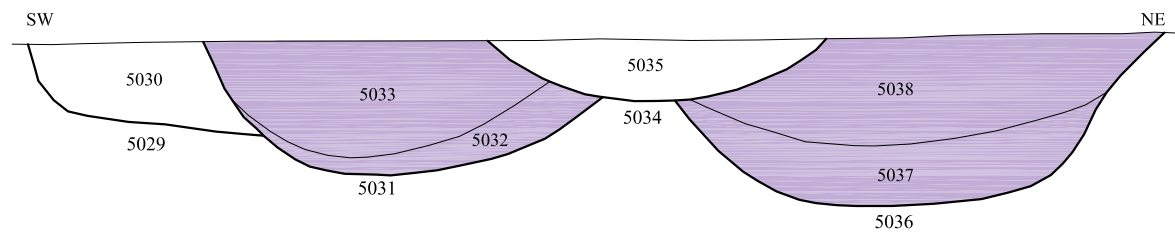
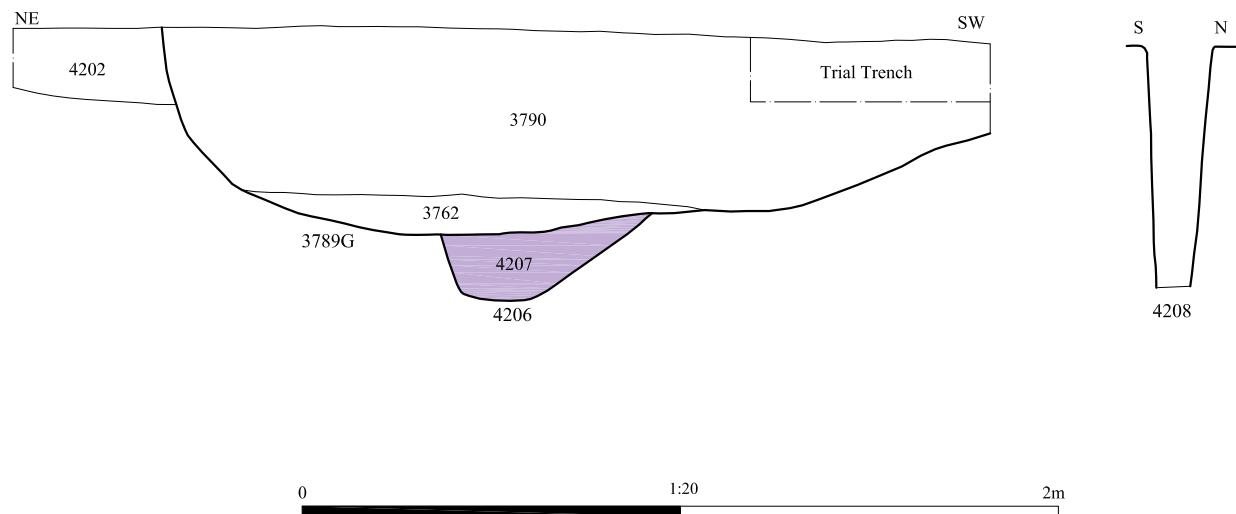


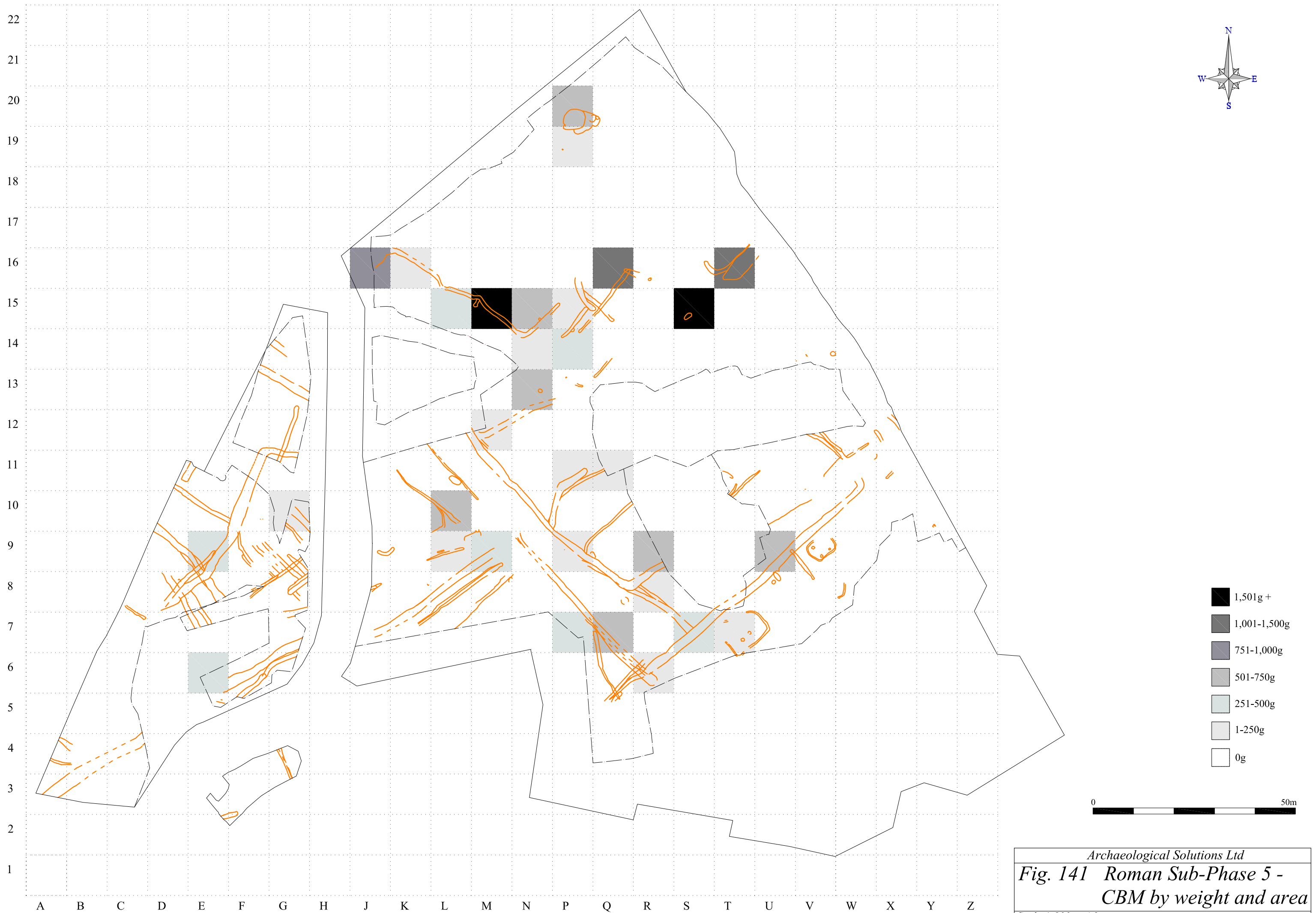


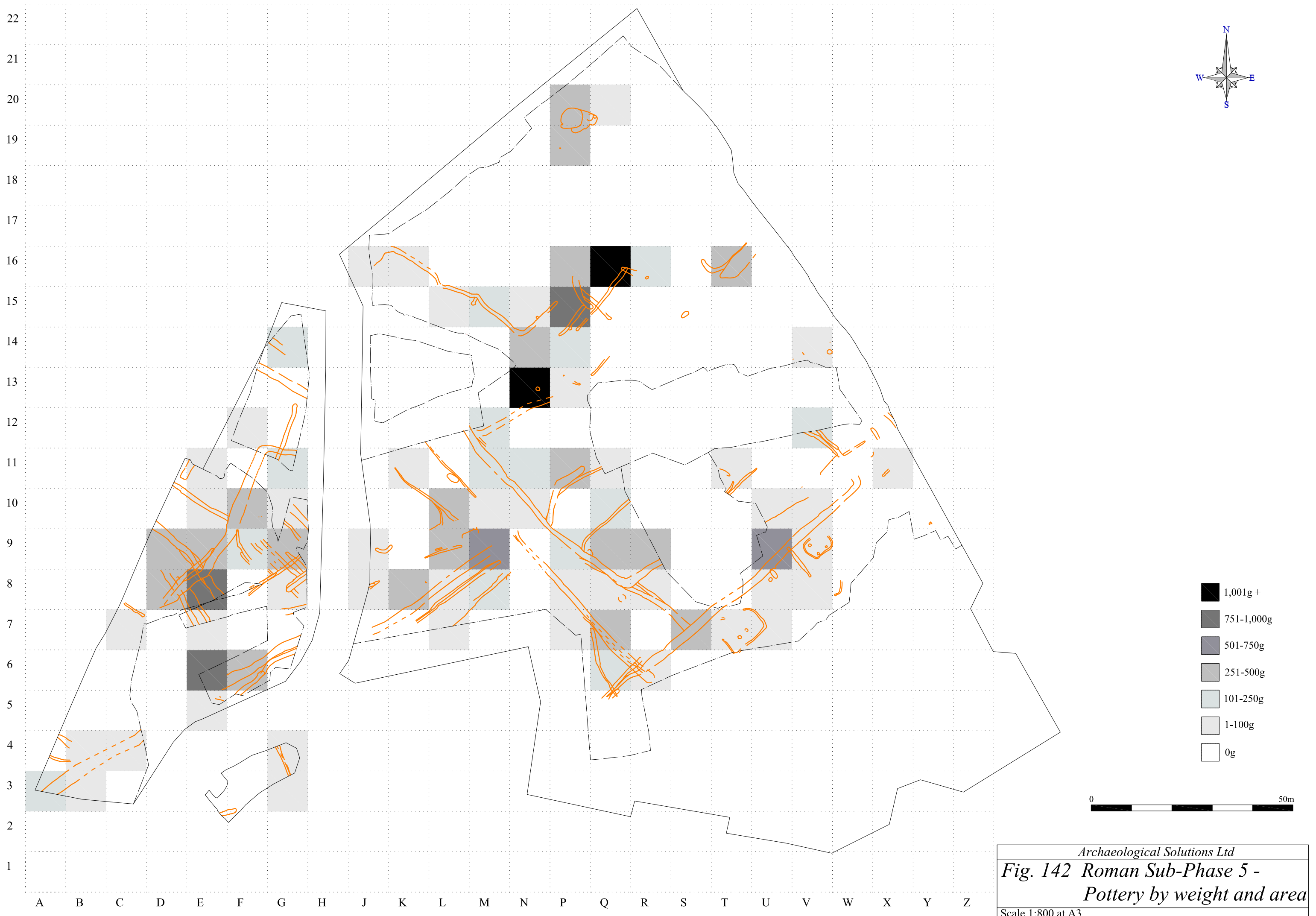
Roman Sub-Phase 5 pit pair (1/2)



Roman Sub-Phase 5 pit pair (2/2)

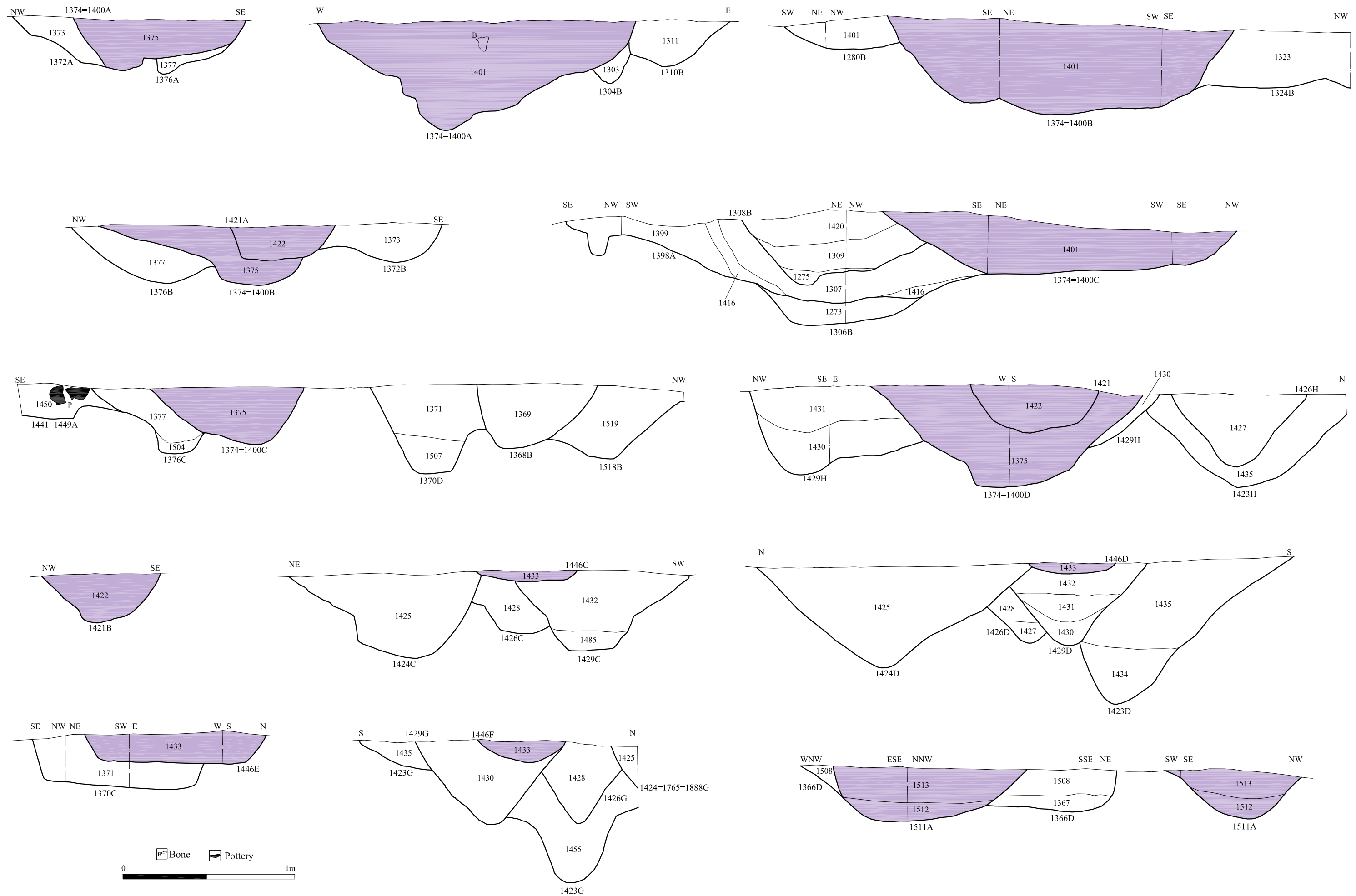


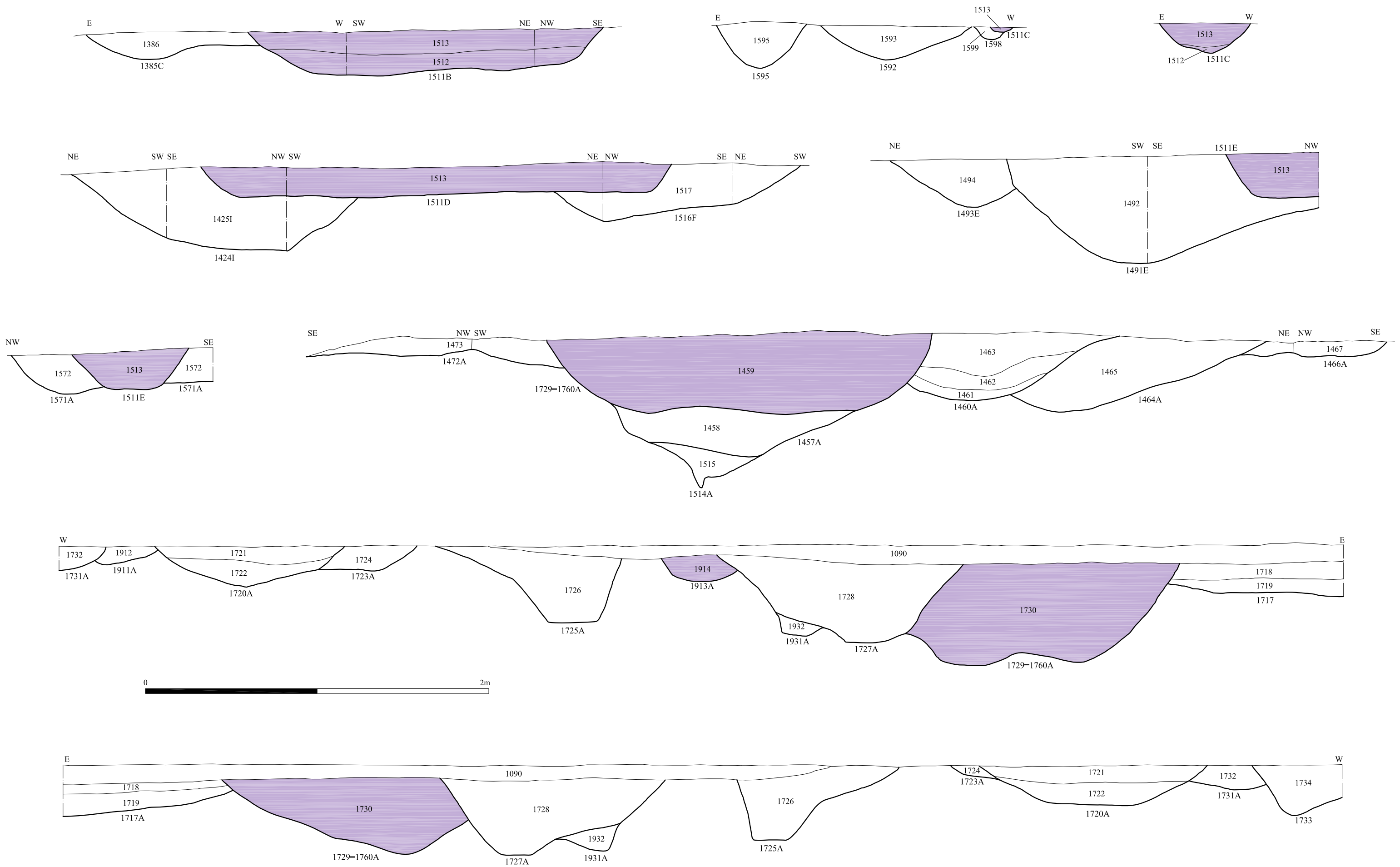


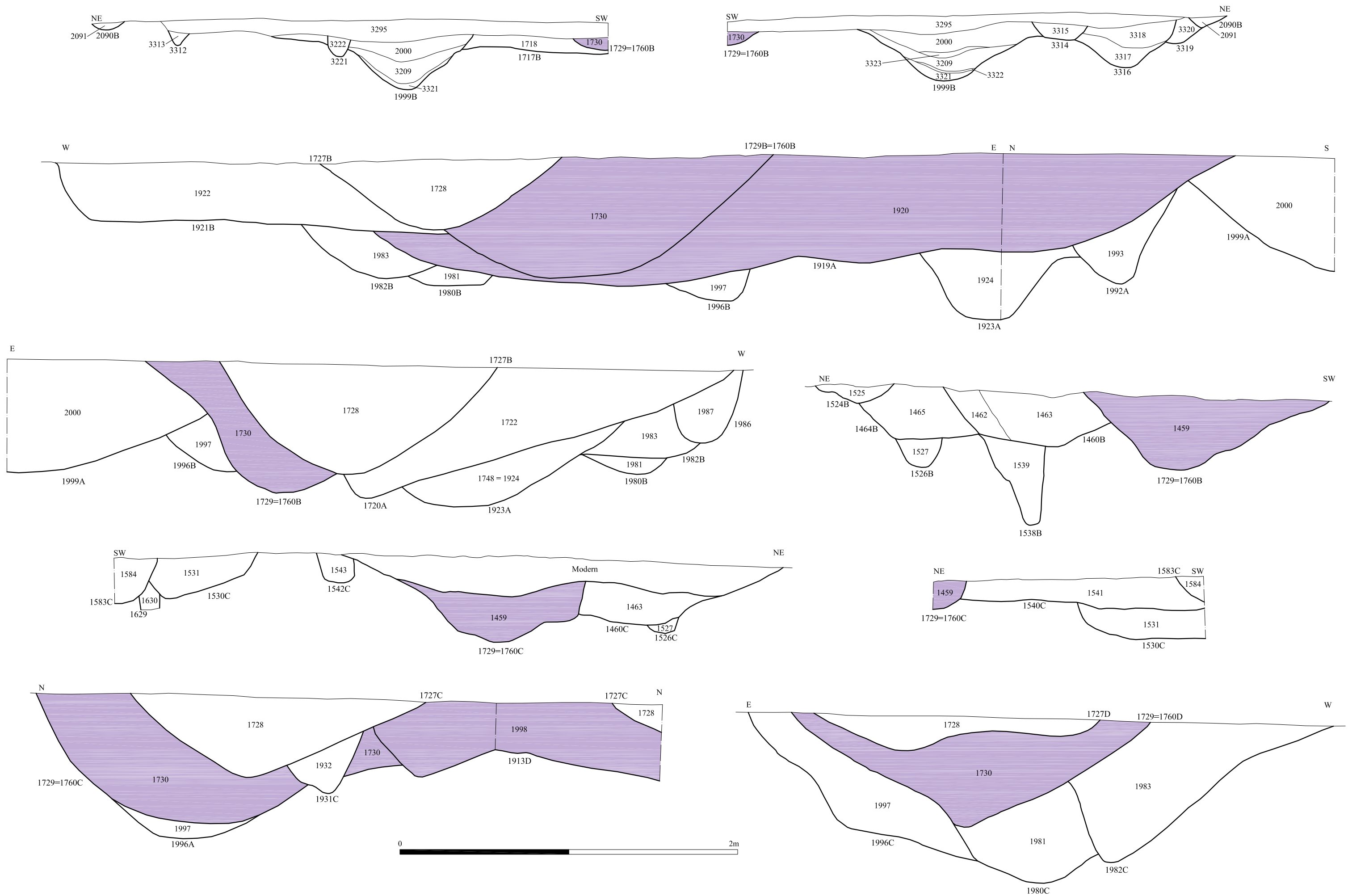


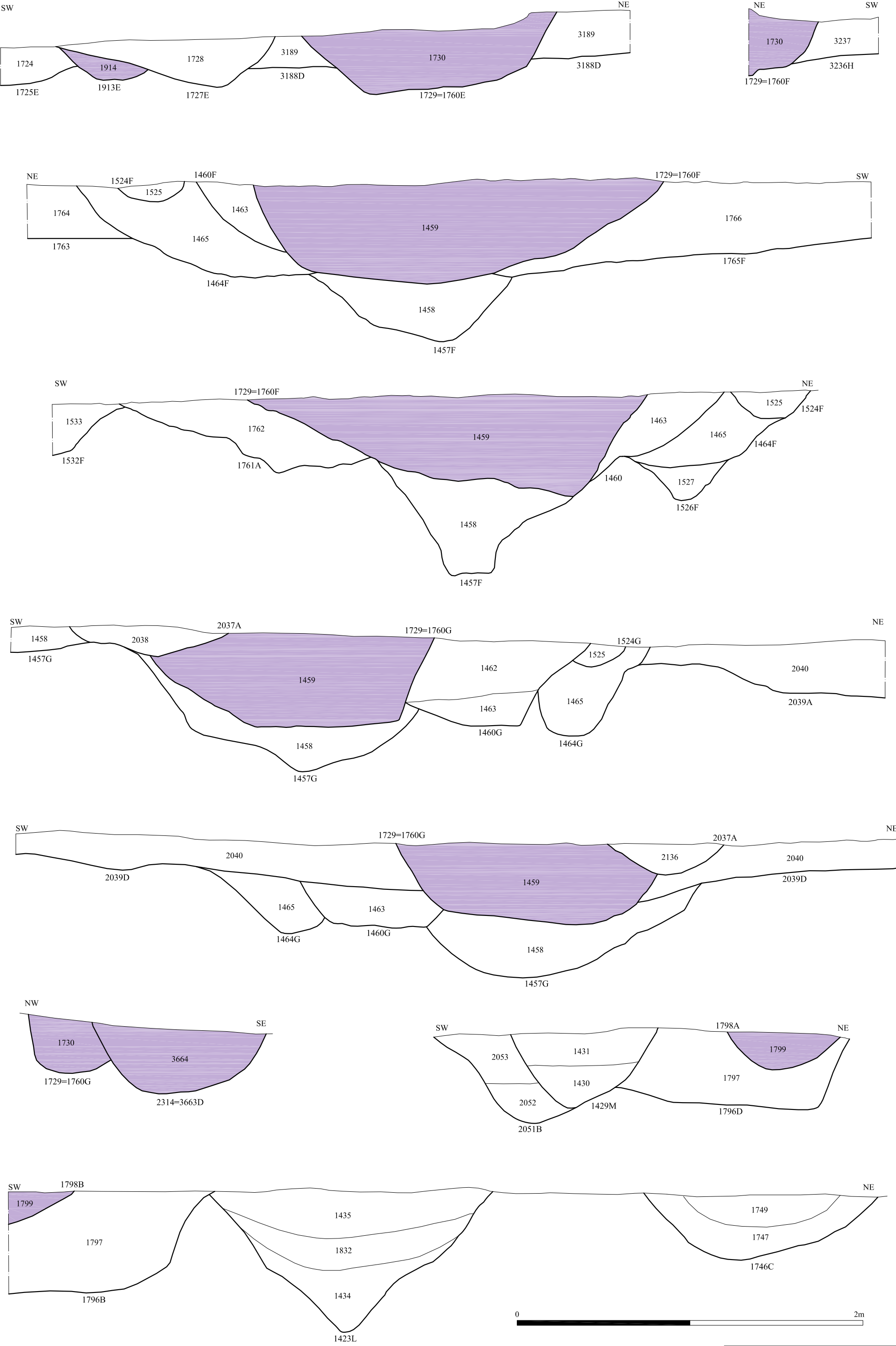


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Fig. 143 Roman Sub-Phase 6
Scale 1:800 at A3

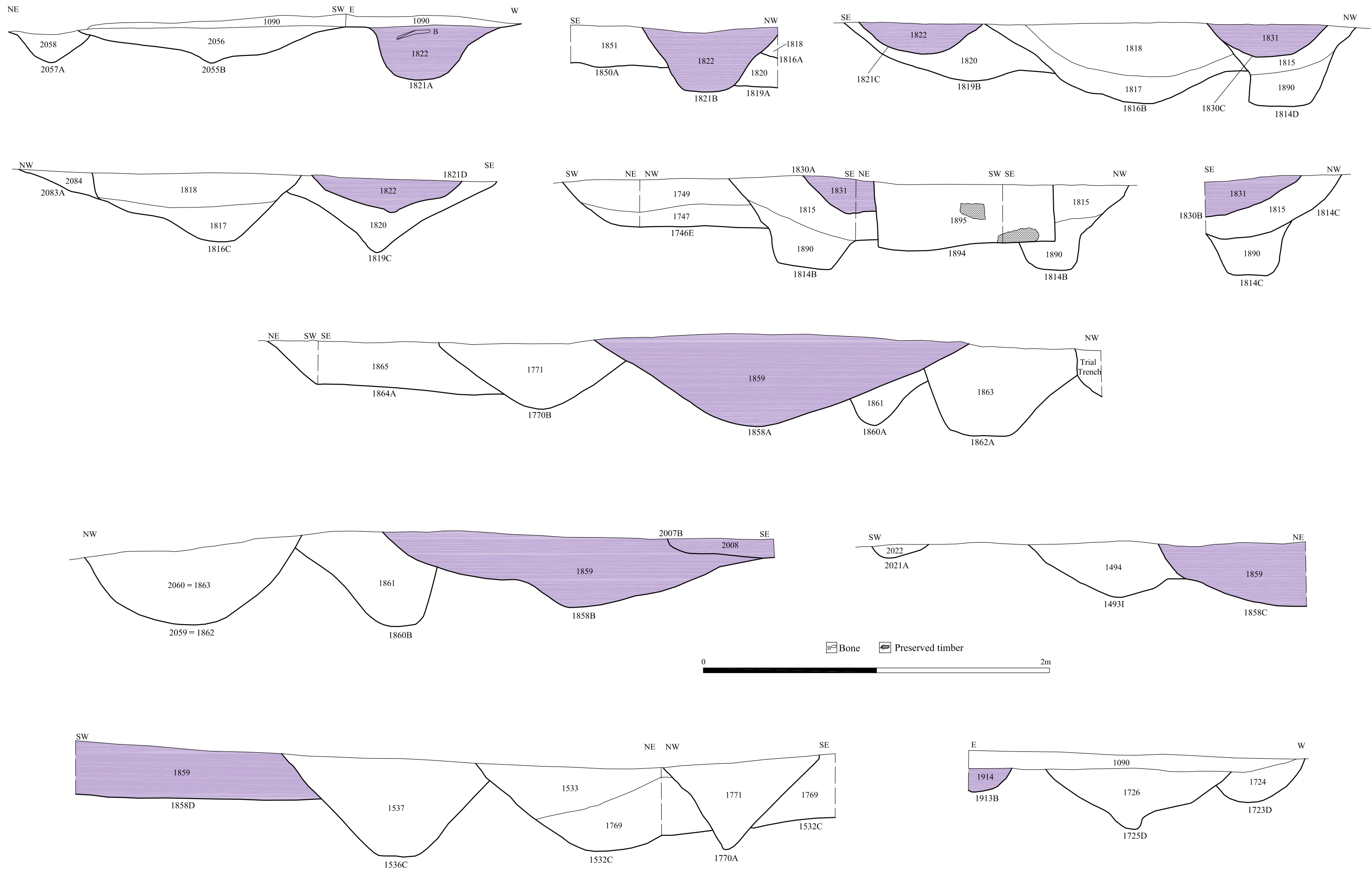




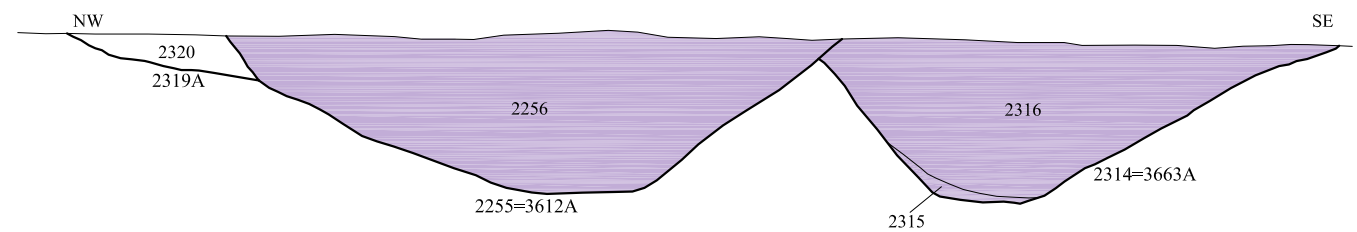
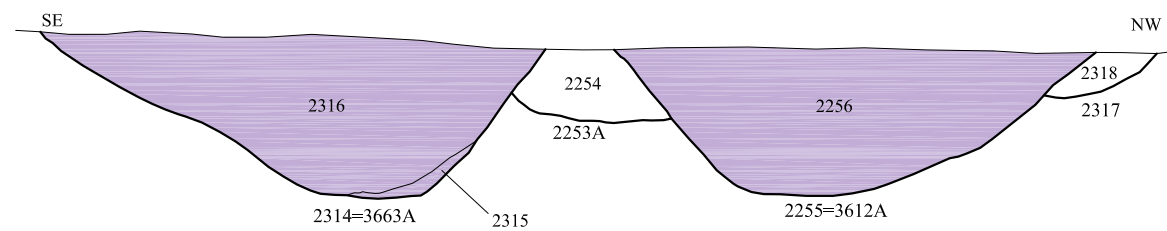
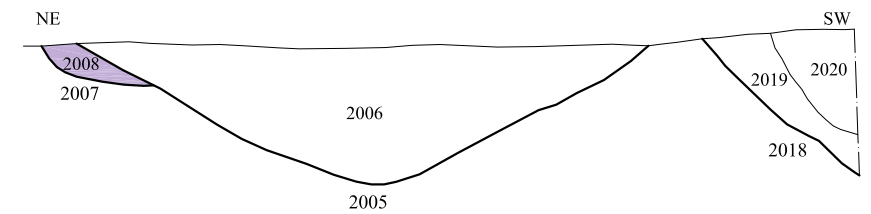
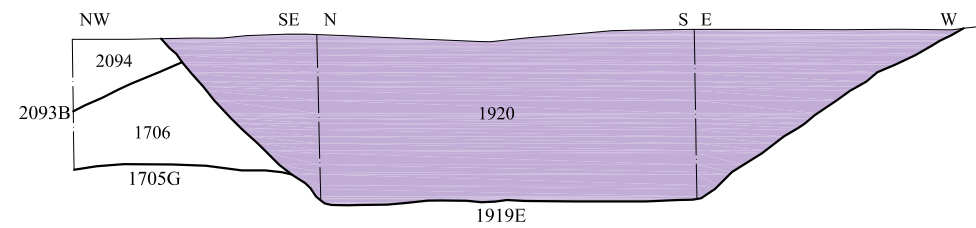
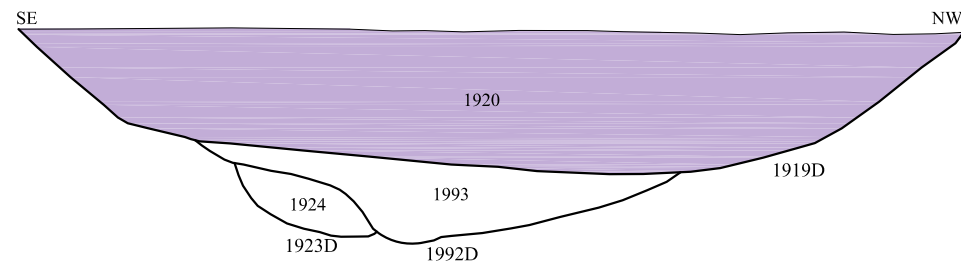
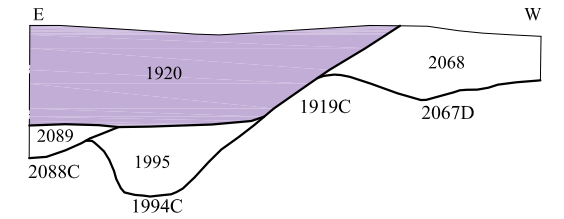
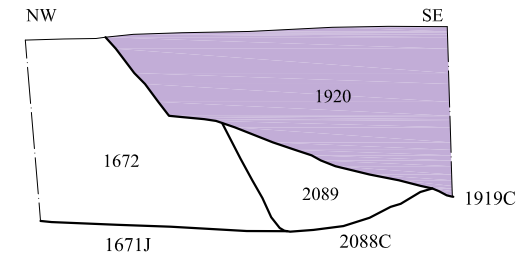
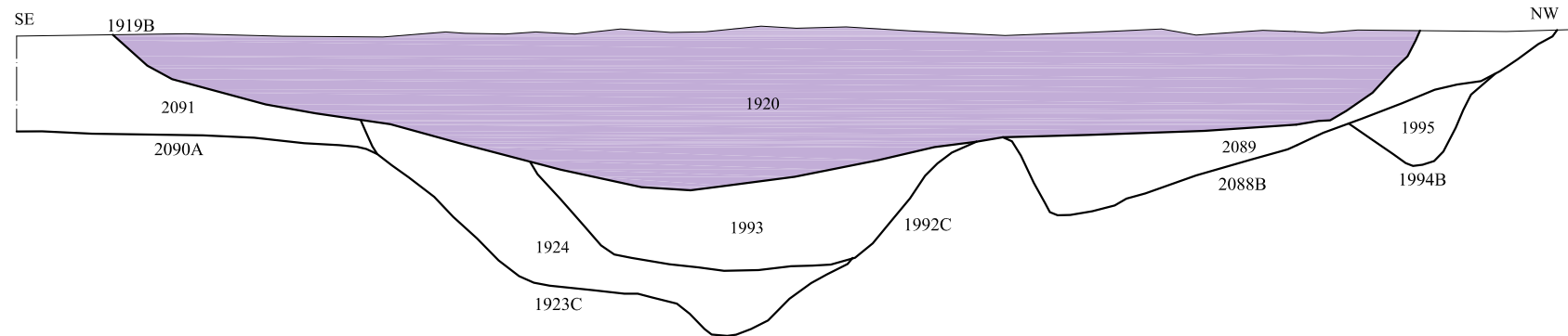
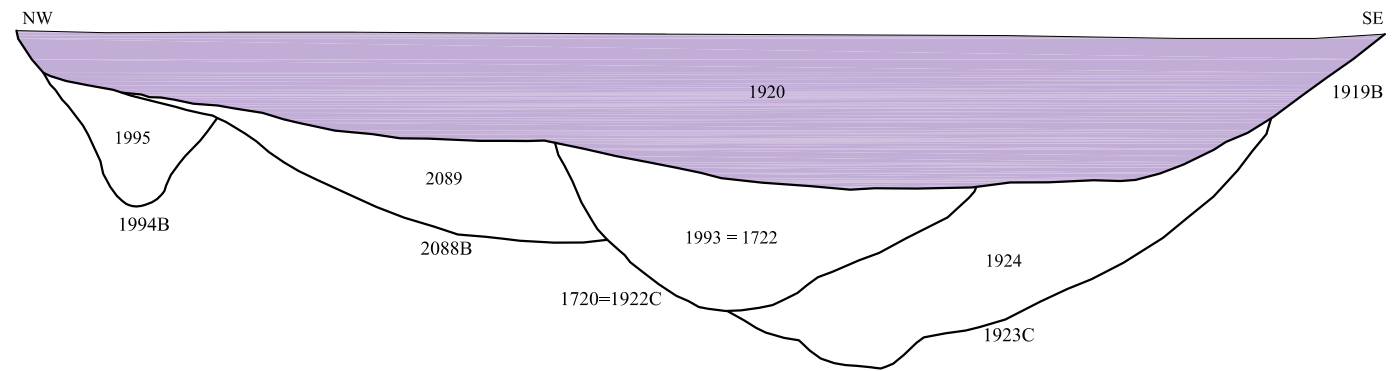
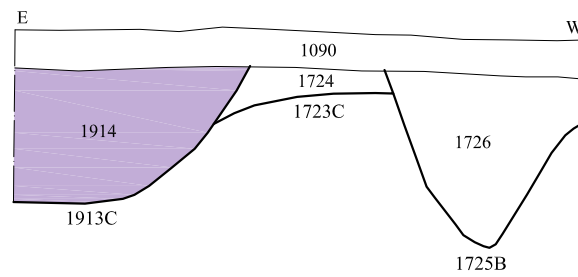


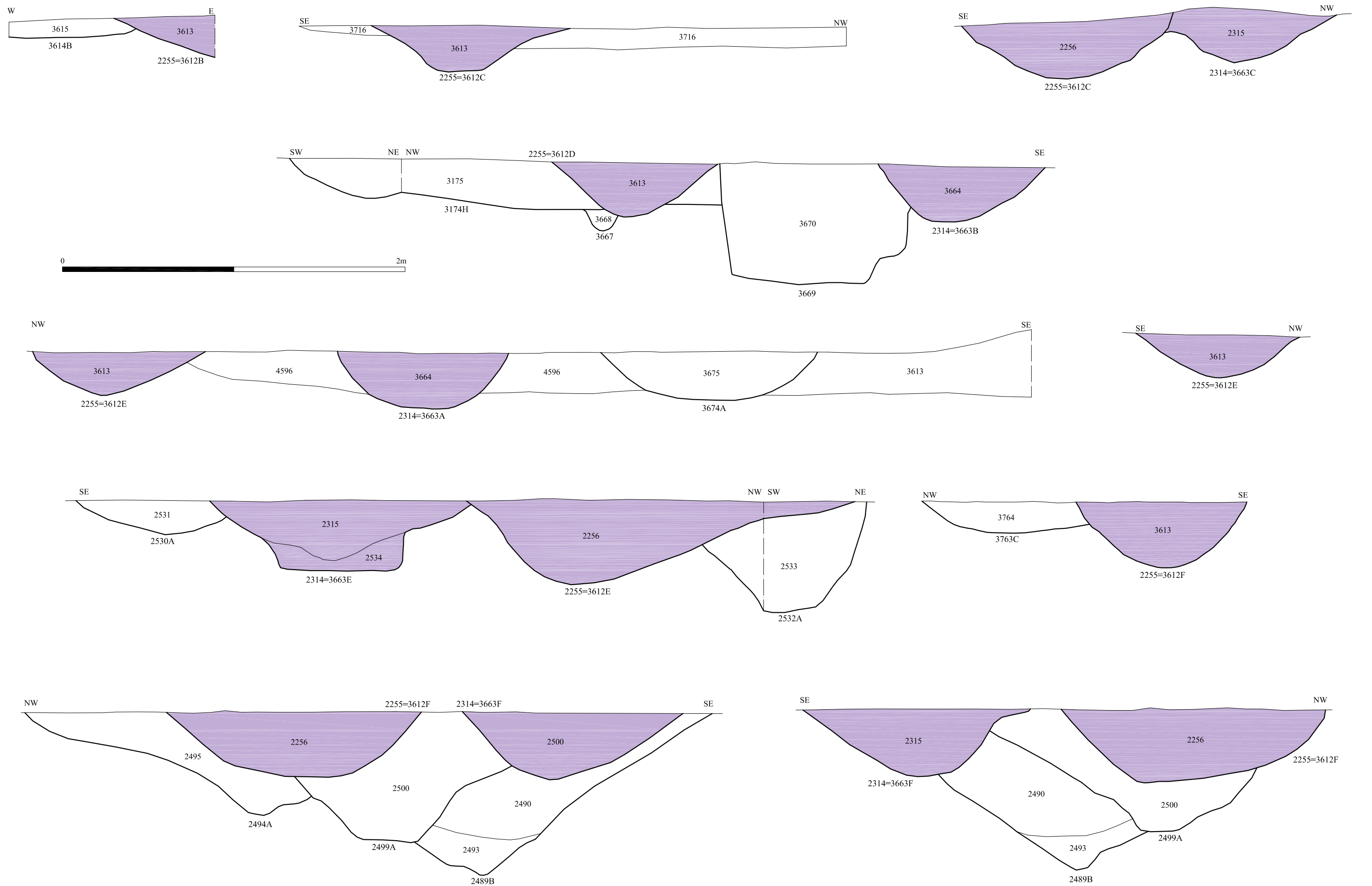


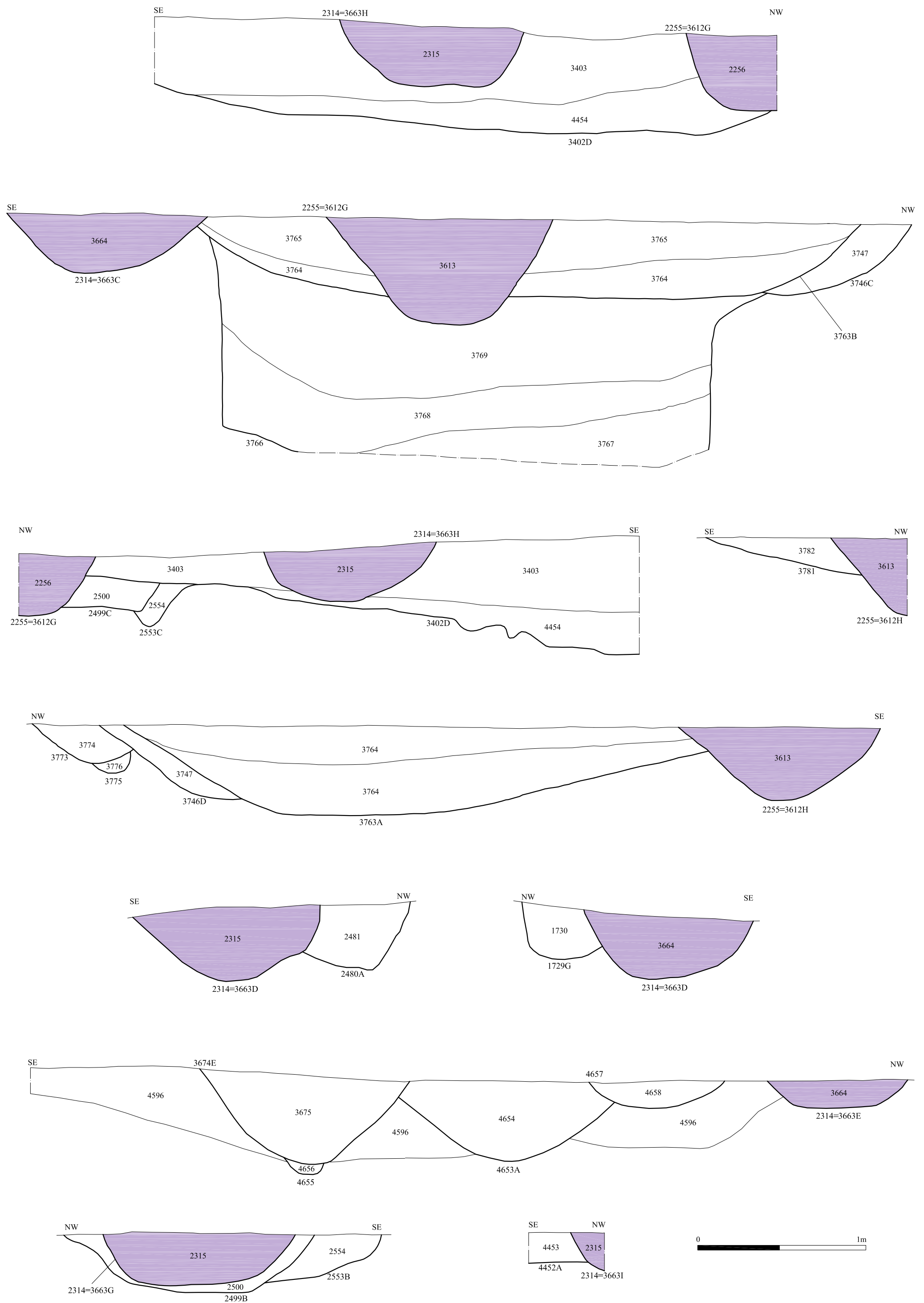
0 2m



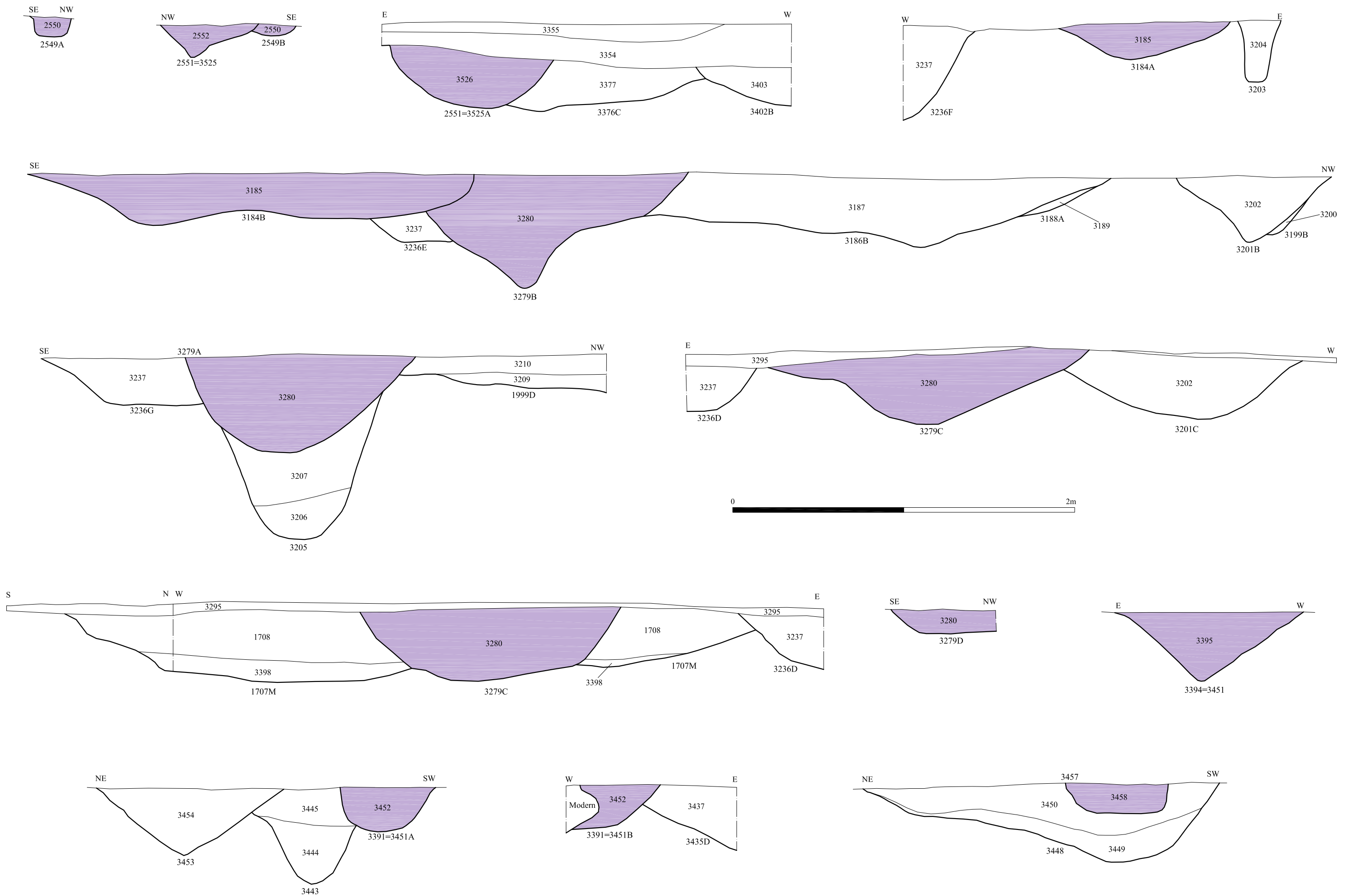
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Fig. 149 Sections
 Scale 1:20 at A3

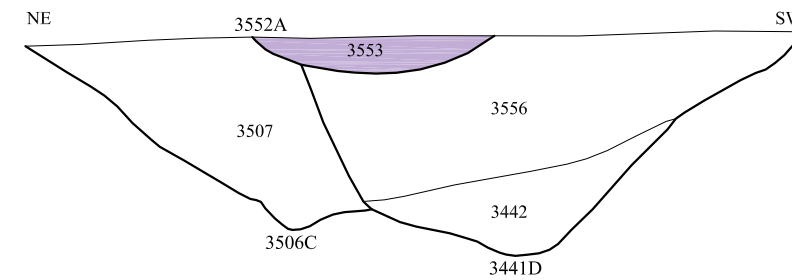
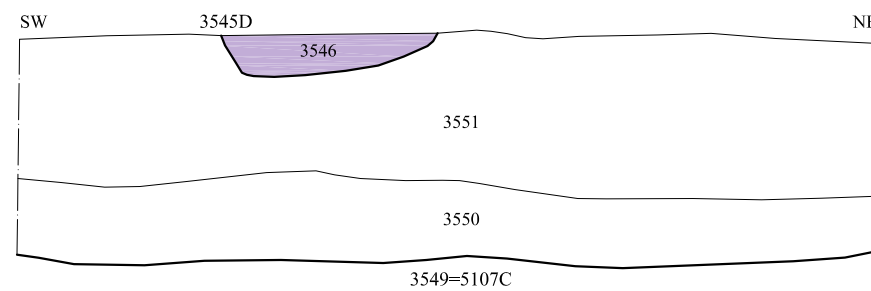
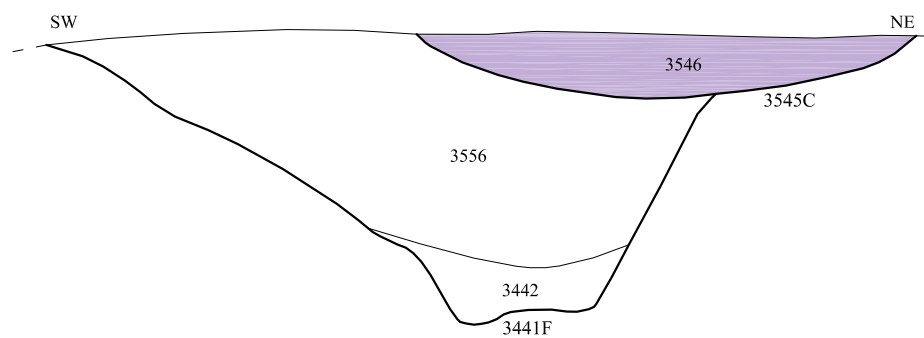
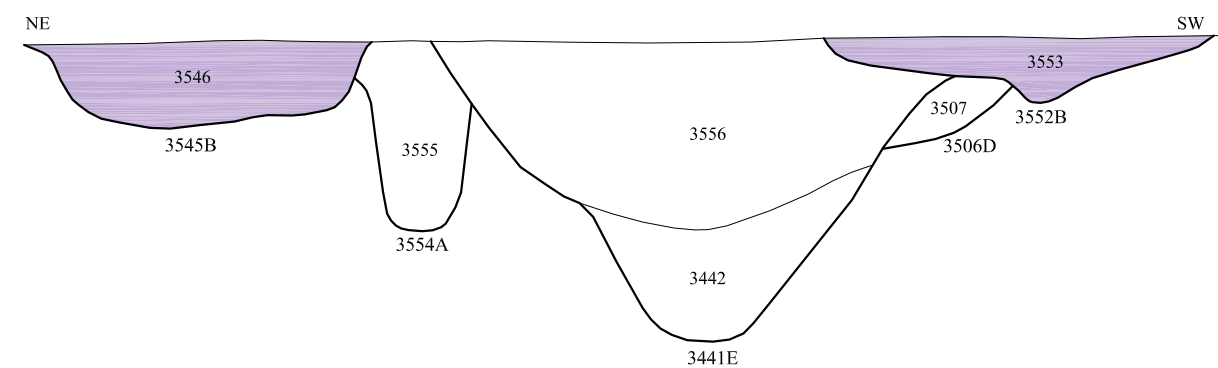
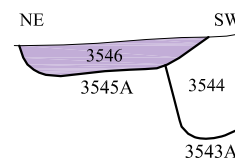
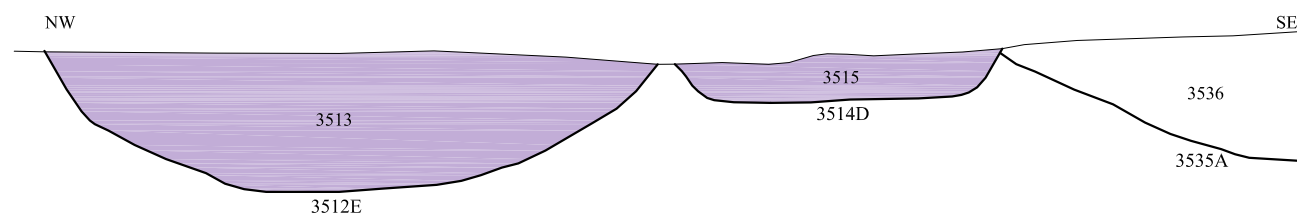
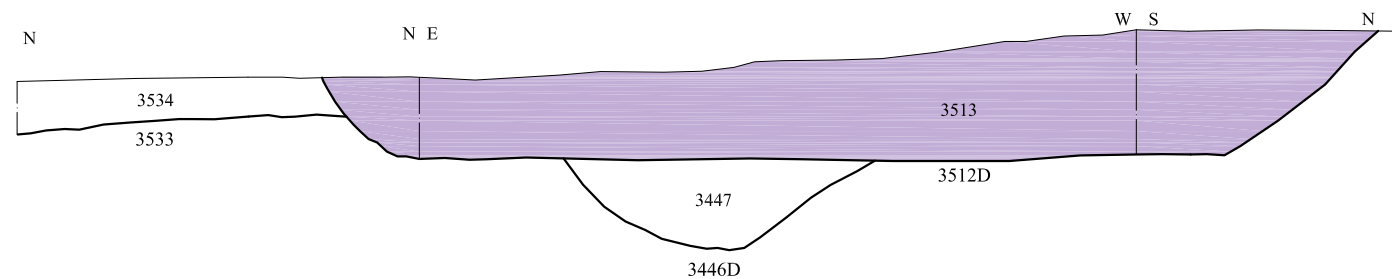
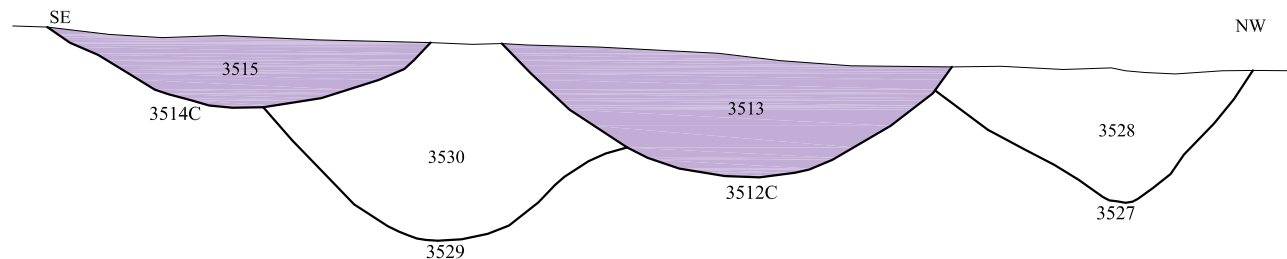
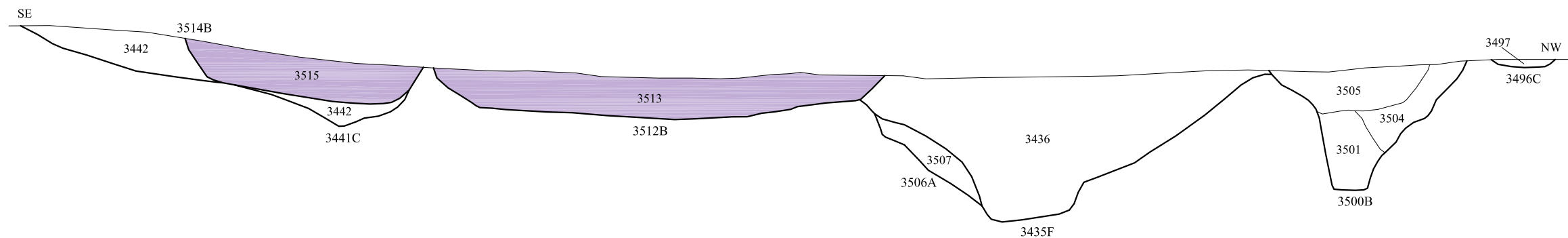
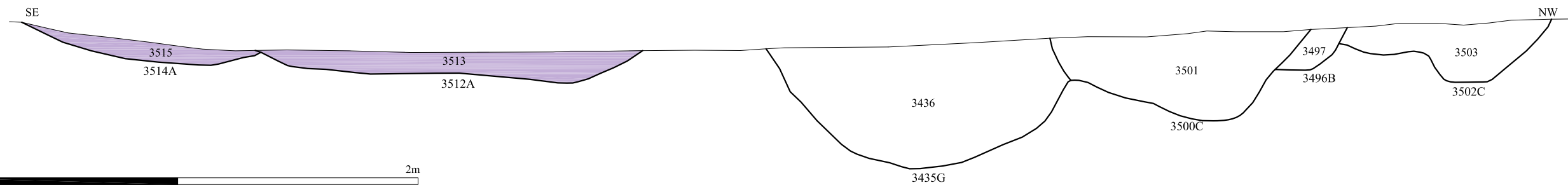






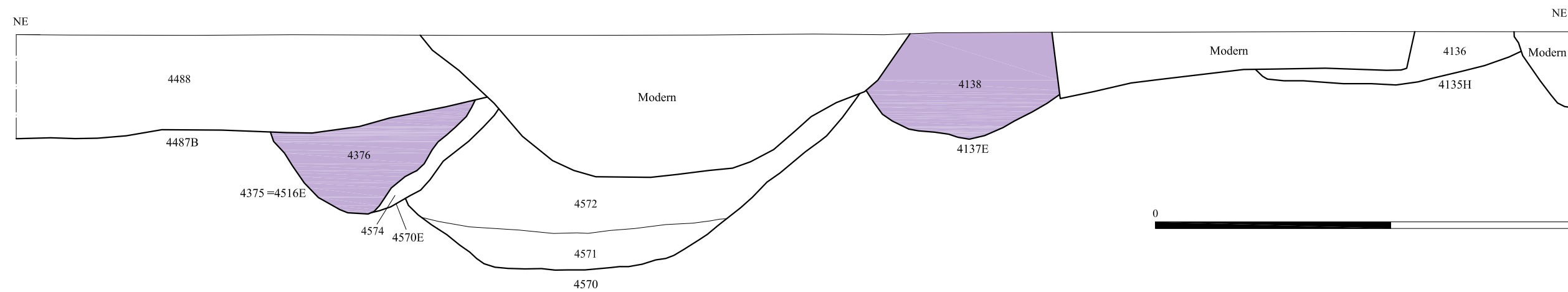
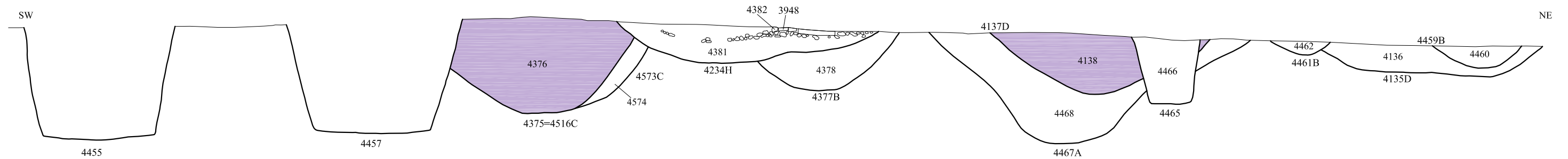
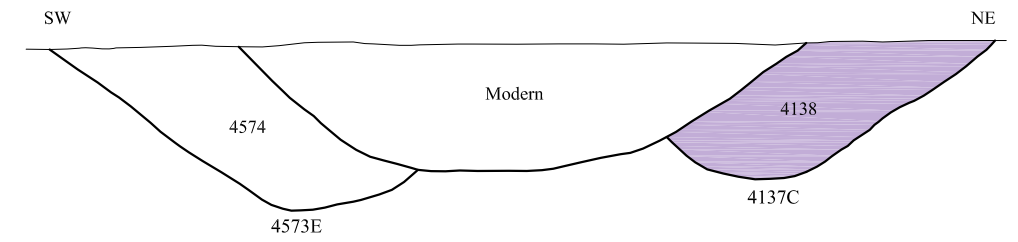
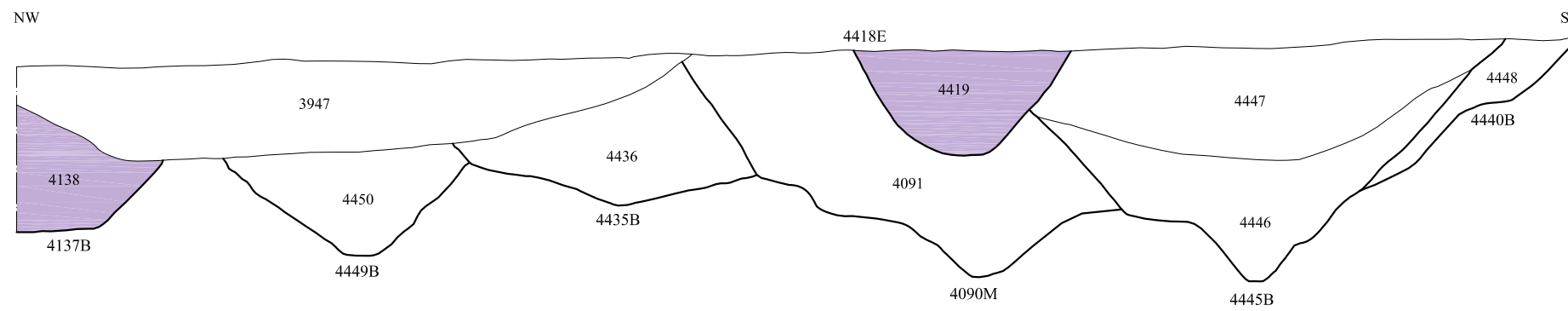
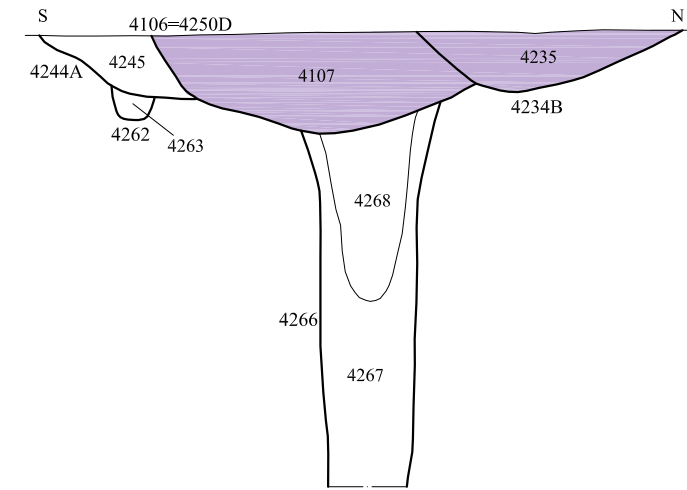
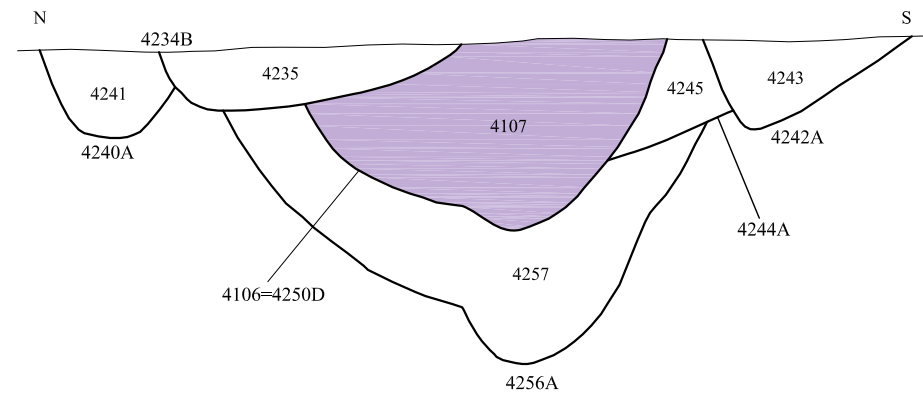
Archaeological Solutions Ltd
Fig. 152 Sections
 Scale 1:20 at A3

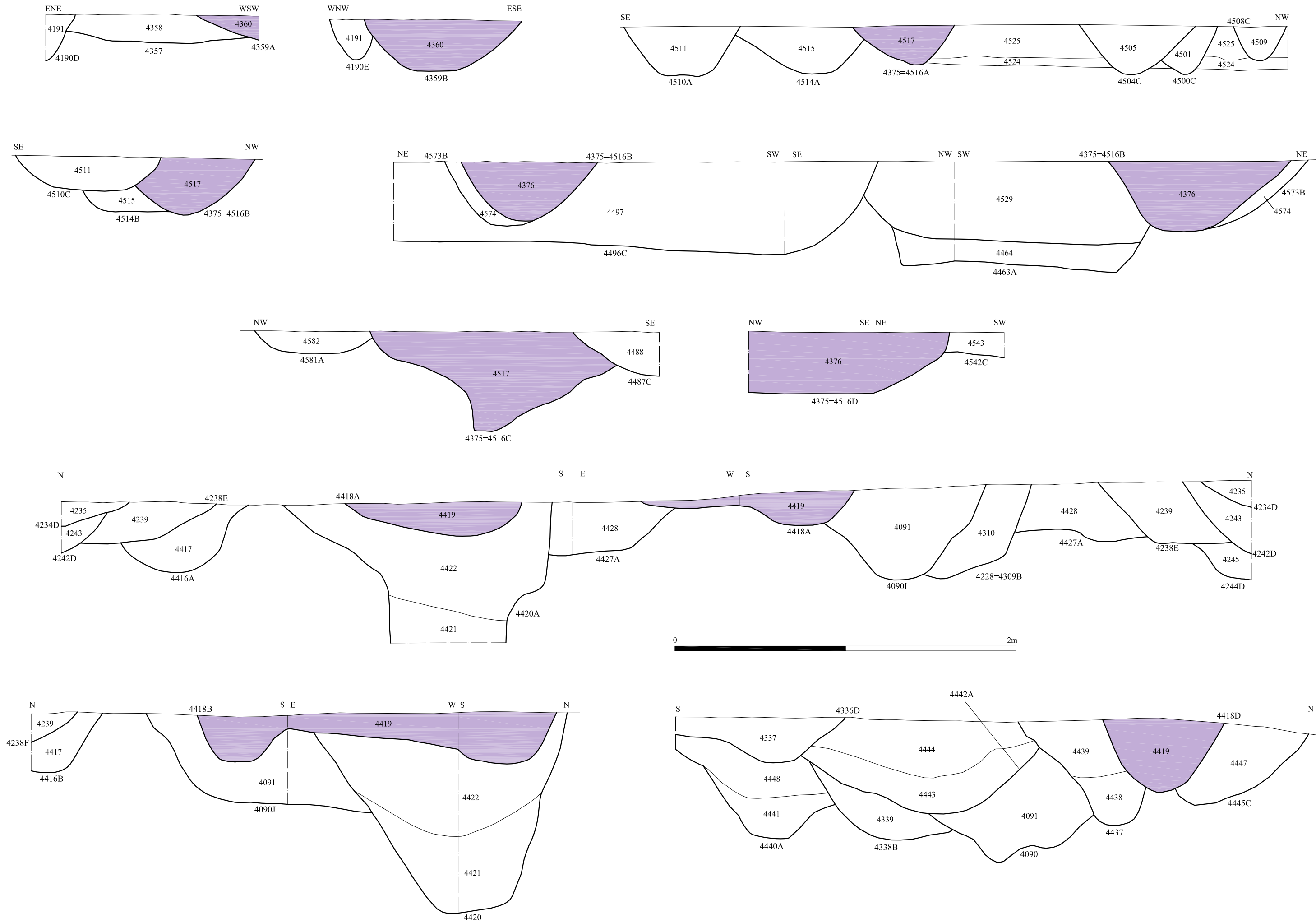




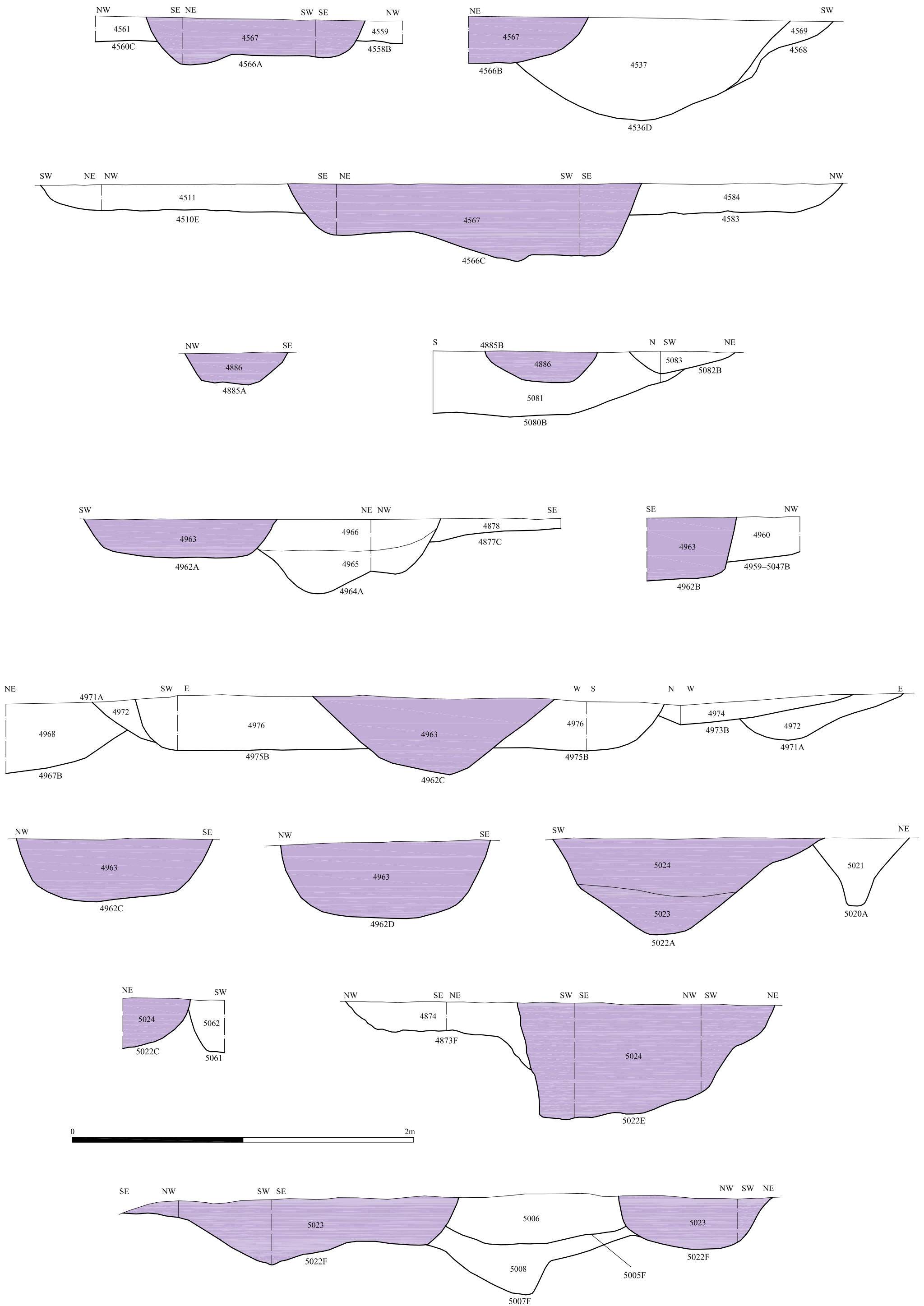


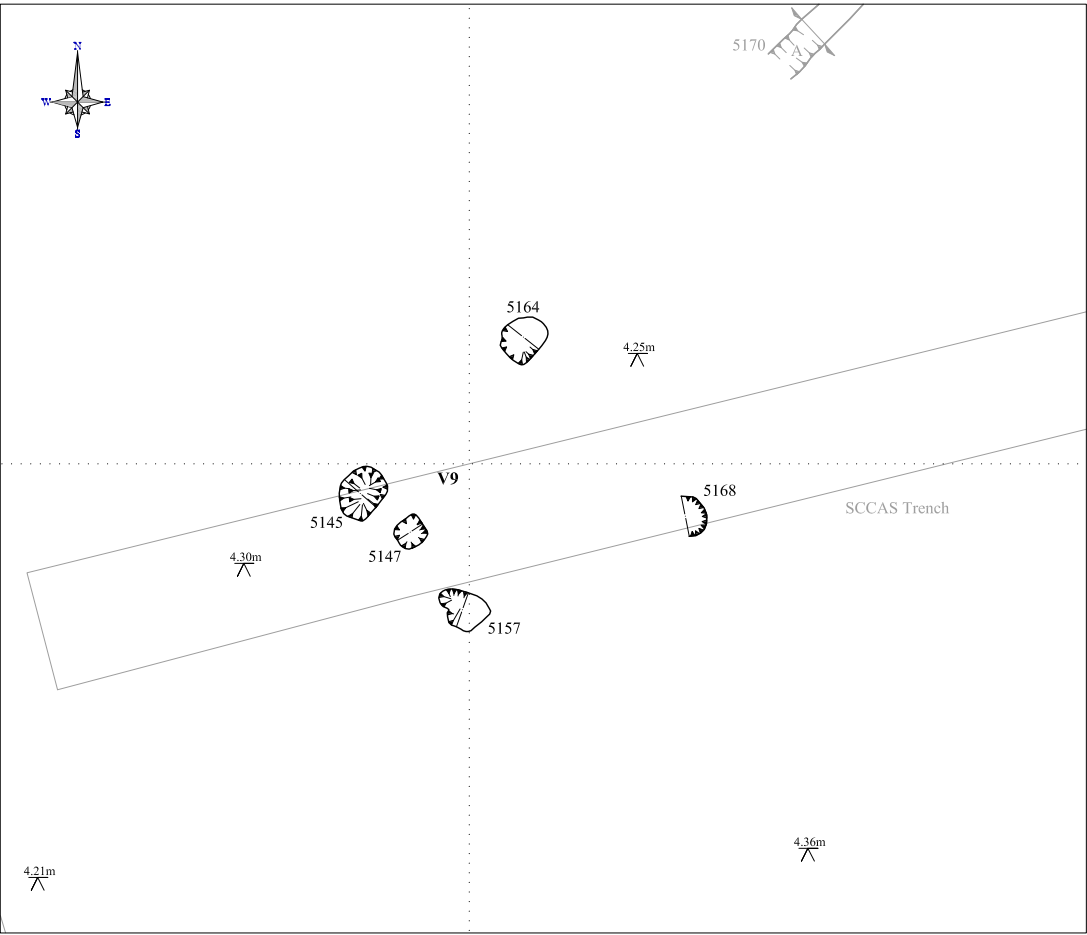
Archaeological Solutions Ltd
Fig. 155 Sections
 Scale 1:20 at A3



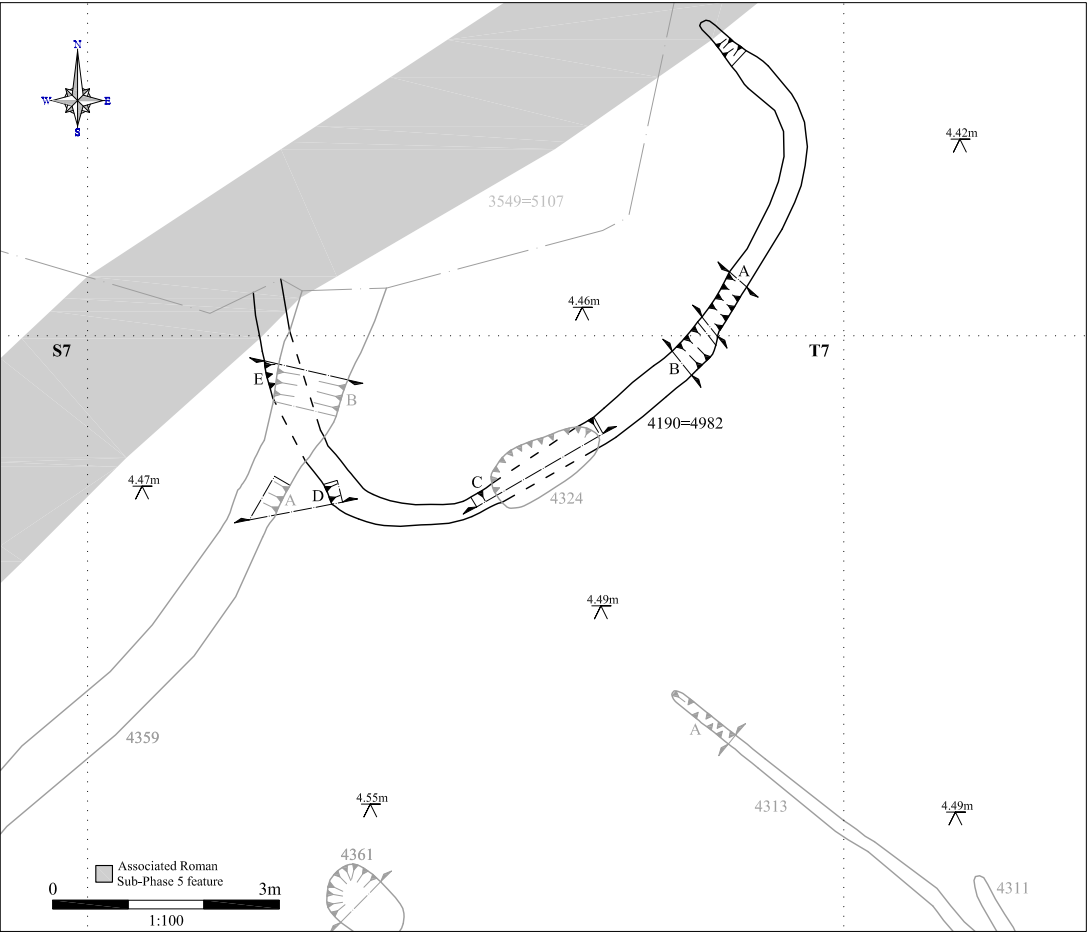
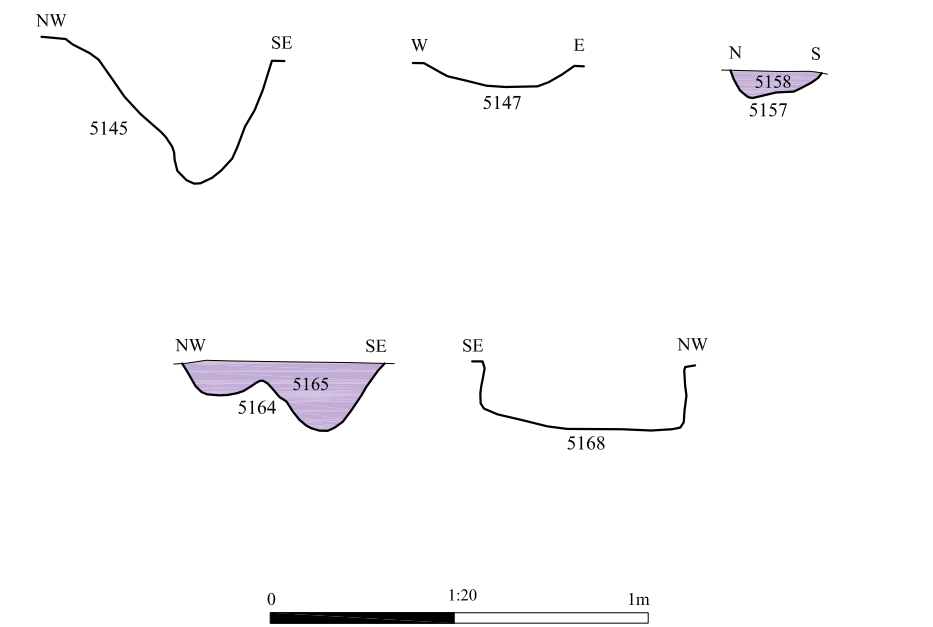


Archaeological Solutions Ltd
Fig. 158 Sections
Scale 1:20 at A3

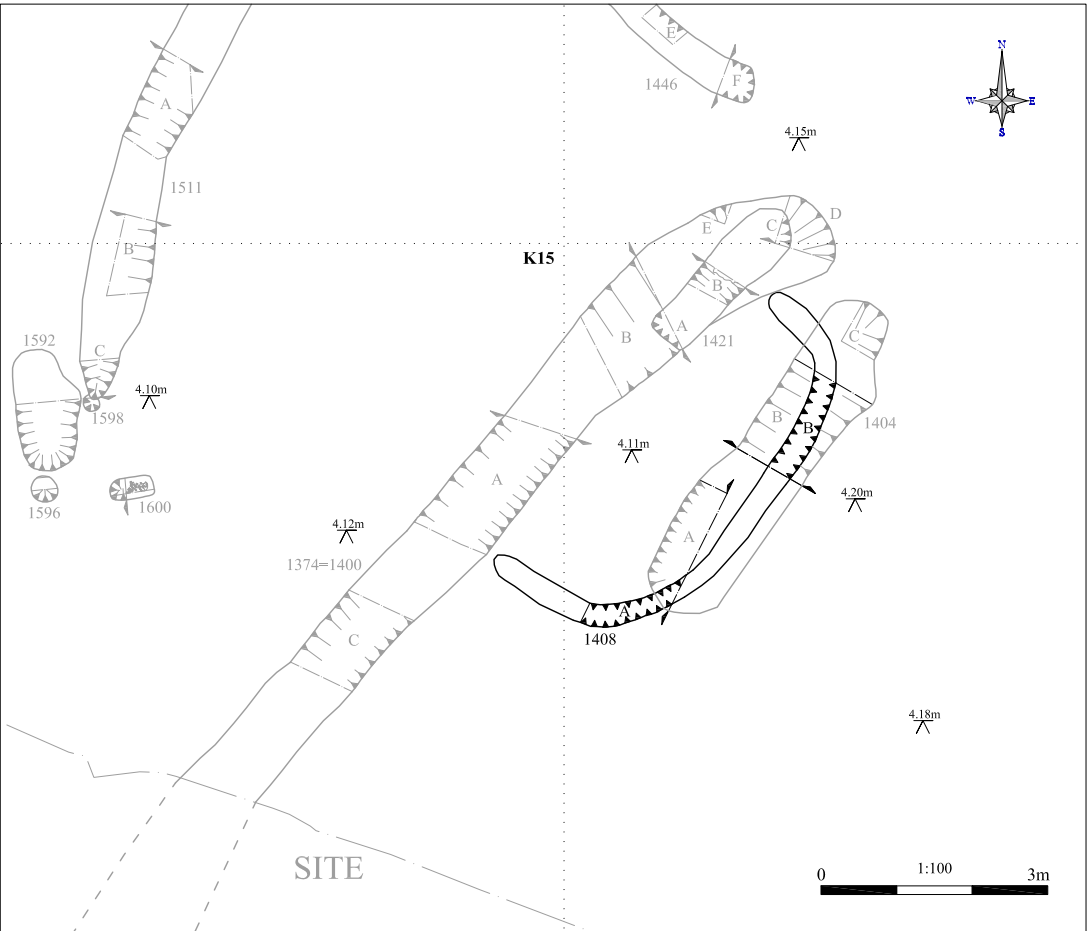
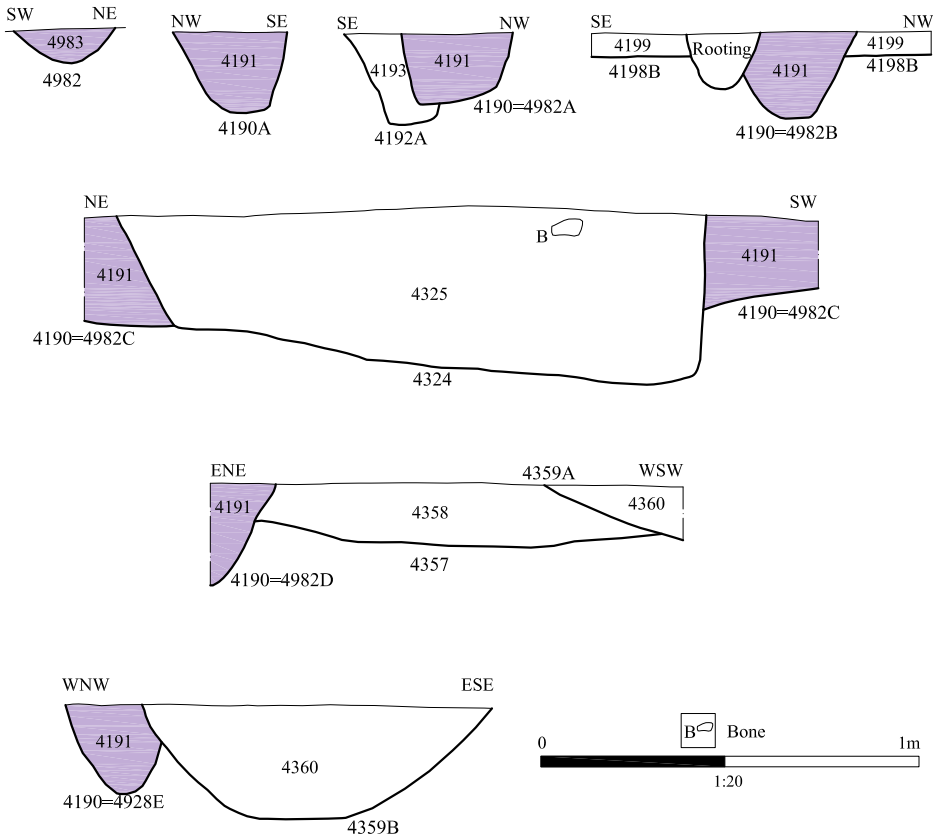




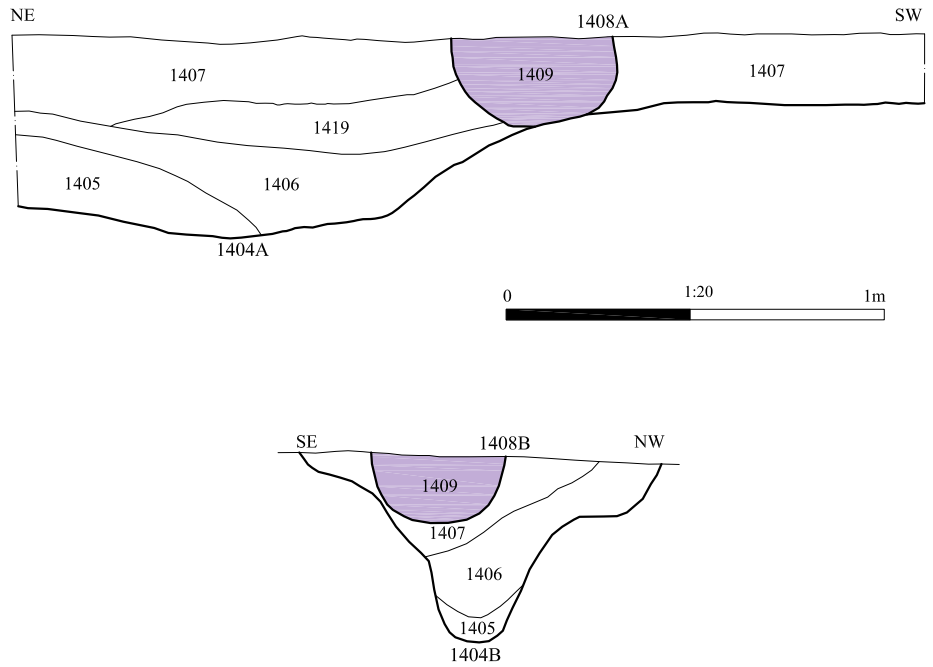
Roman Sub-Phase 6 structure 7



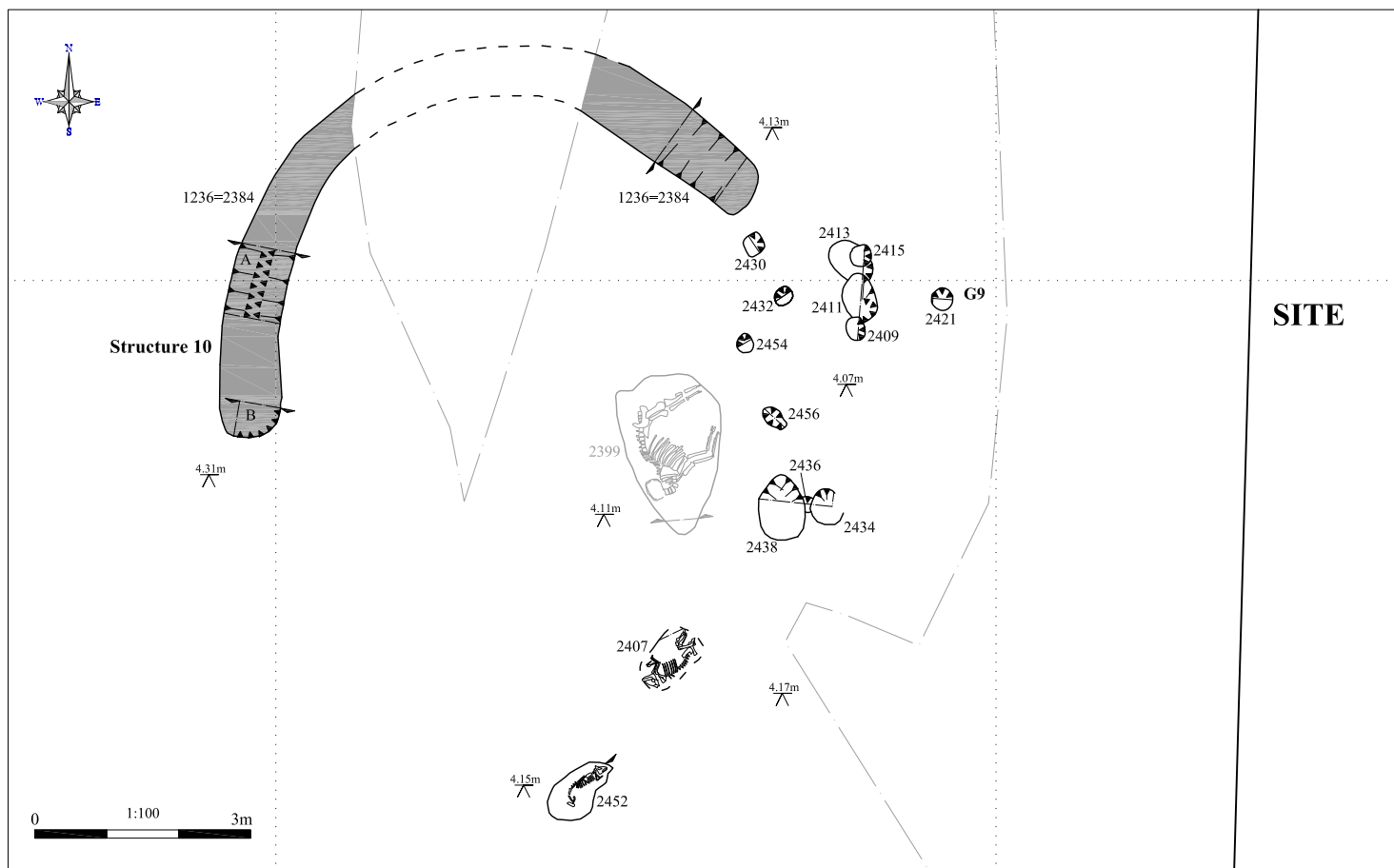
Roman Sub-Phase 6 Structure 8



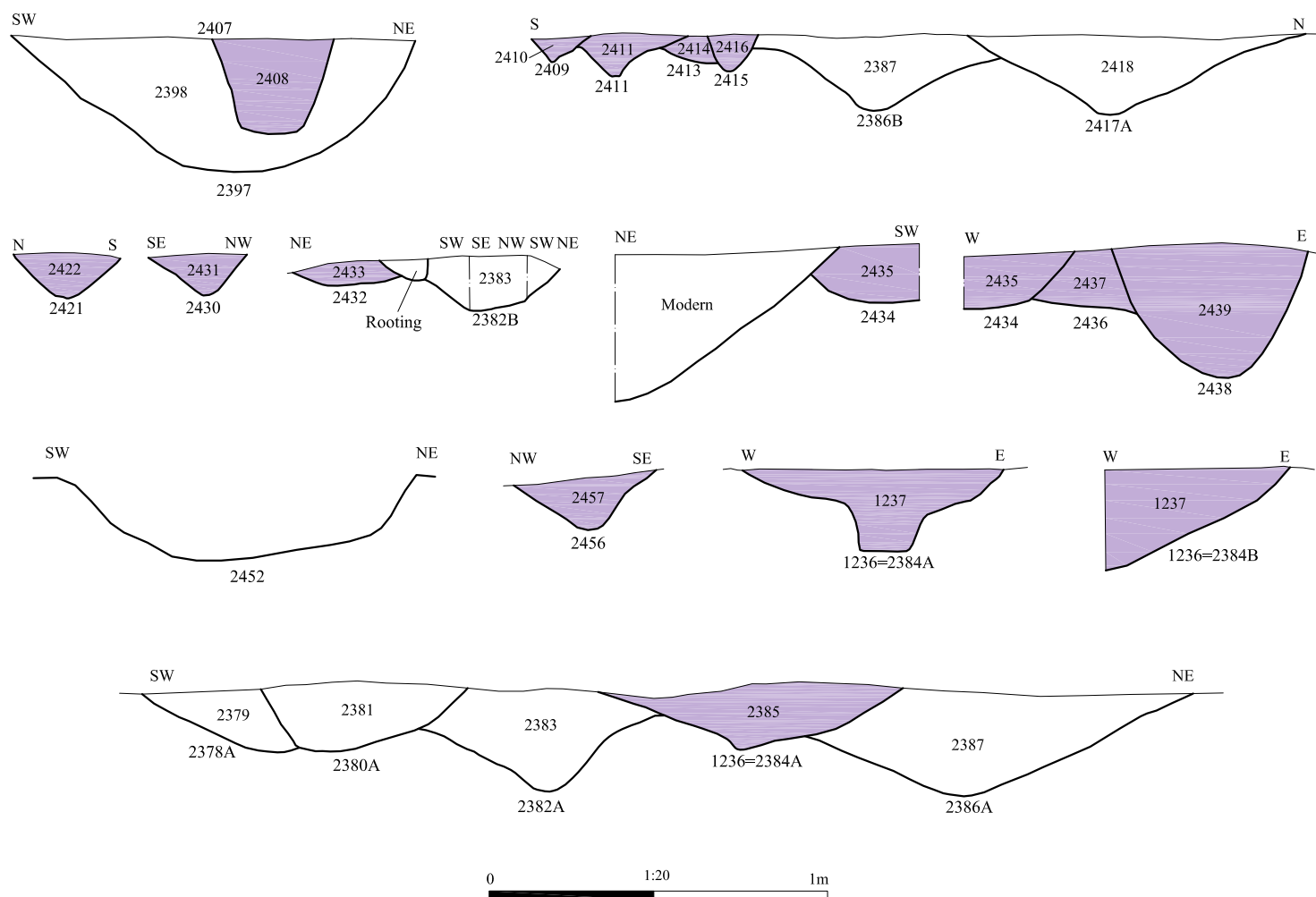
Roman Sub-Phase 6 Structure 9

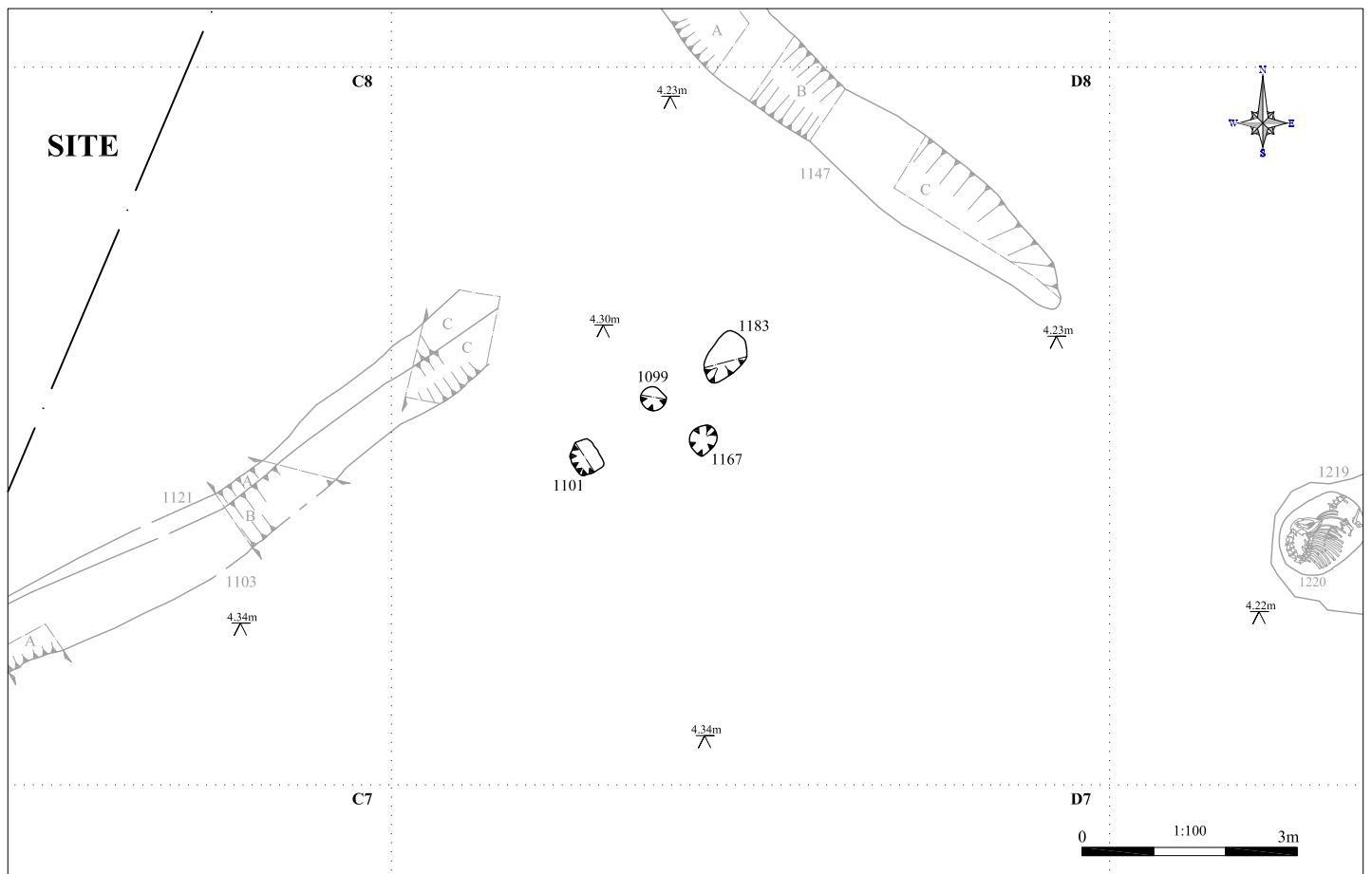


Archaeological Solutions Ltd
Fig. 161 Detailed plans and sections
 Scale 1:20 and 1:100 at A3

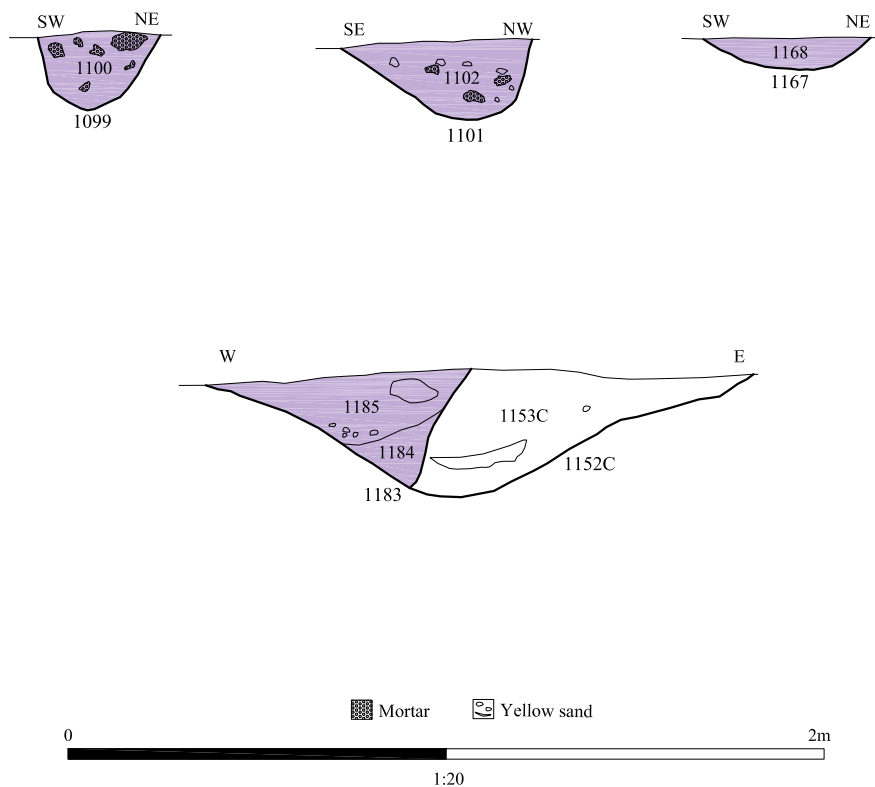


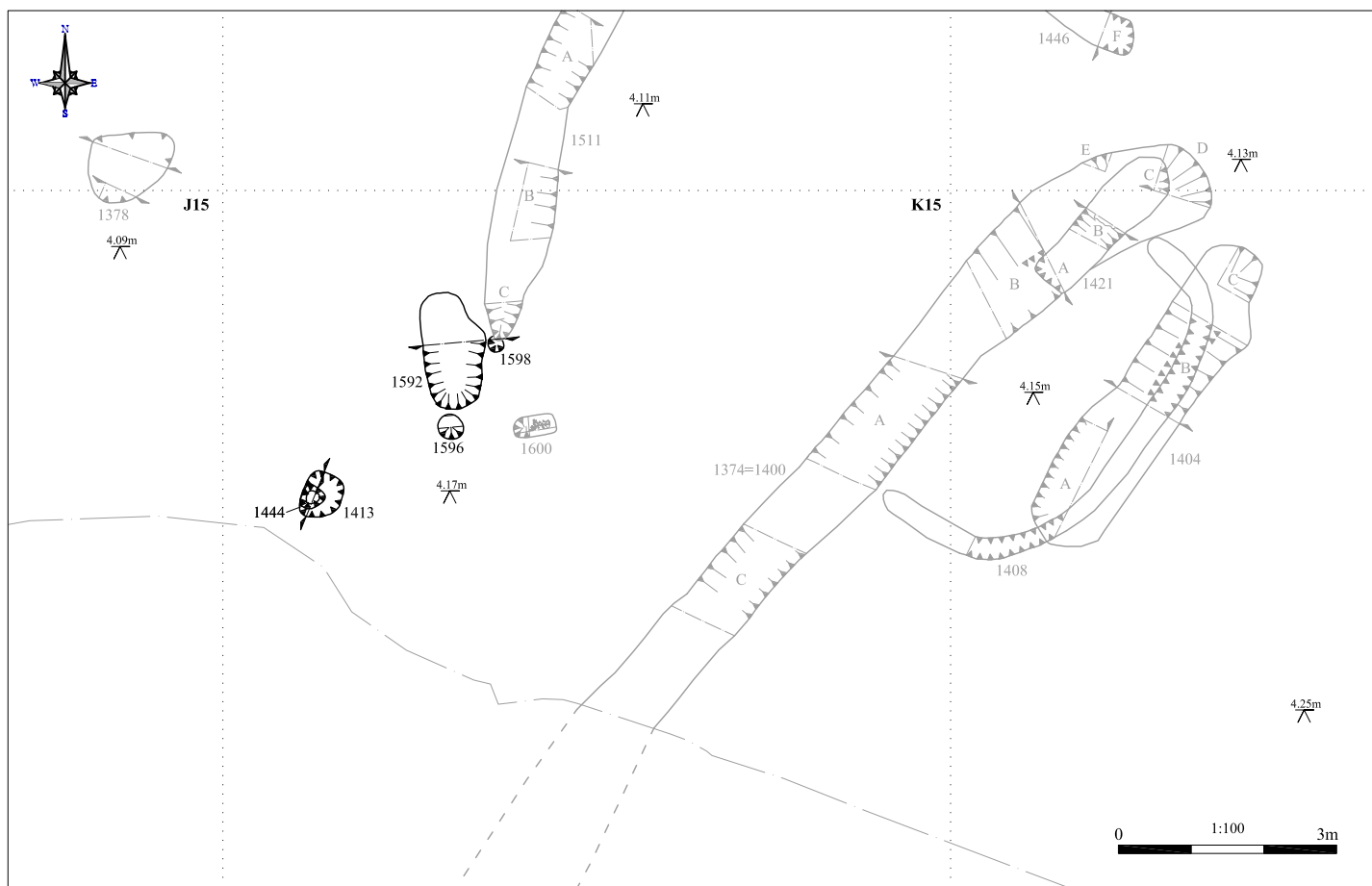
Roman Sub-Phase 6 pit/posthole cluster (1/10) and structure 10



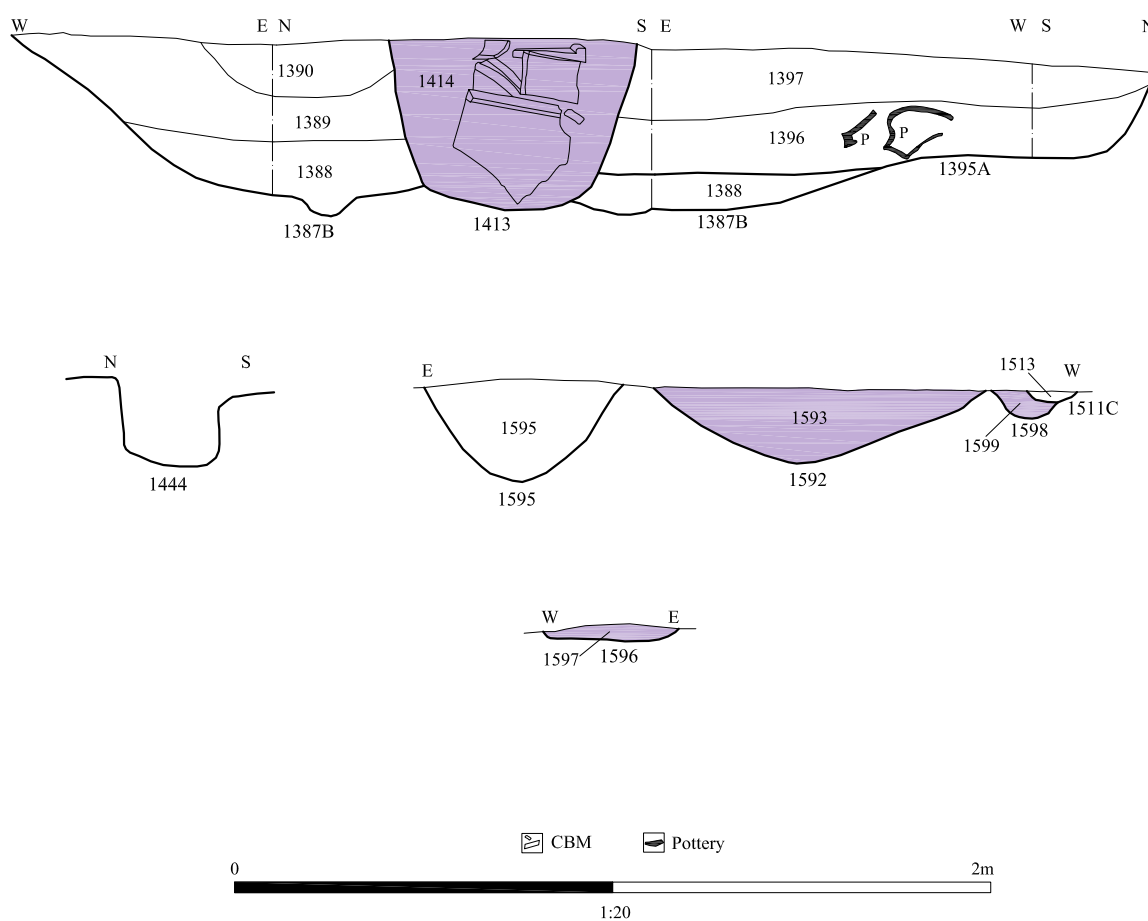


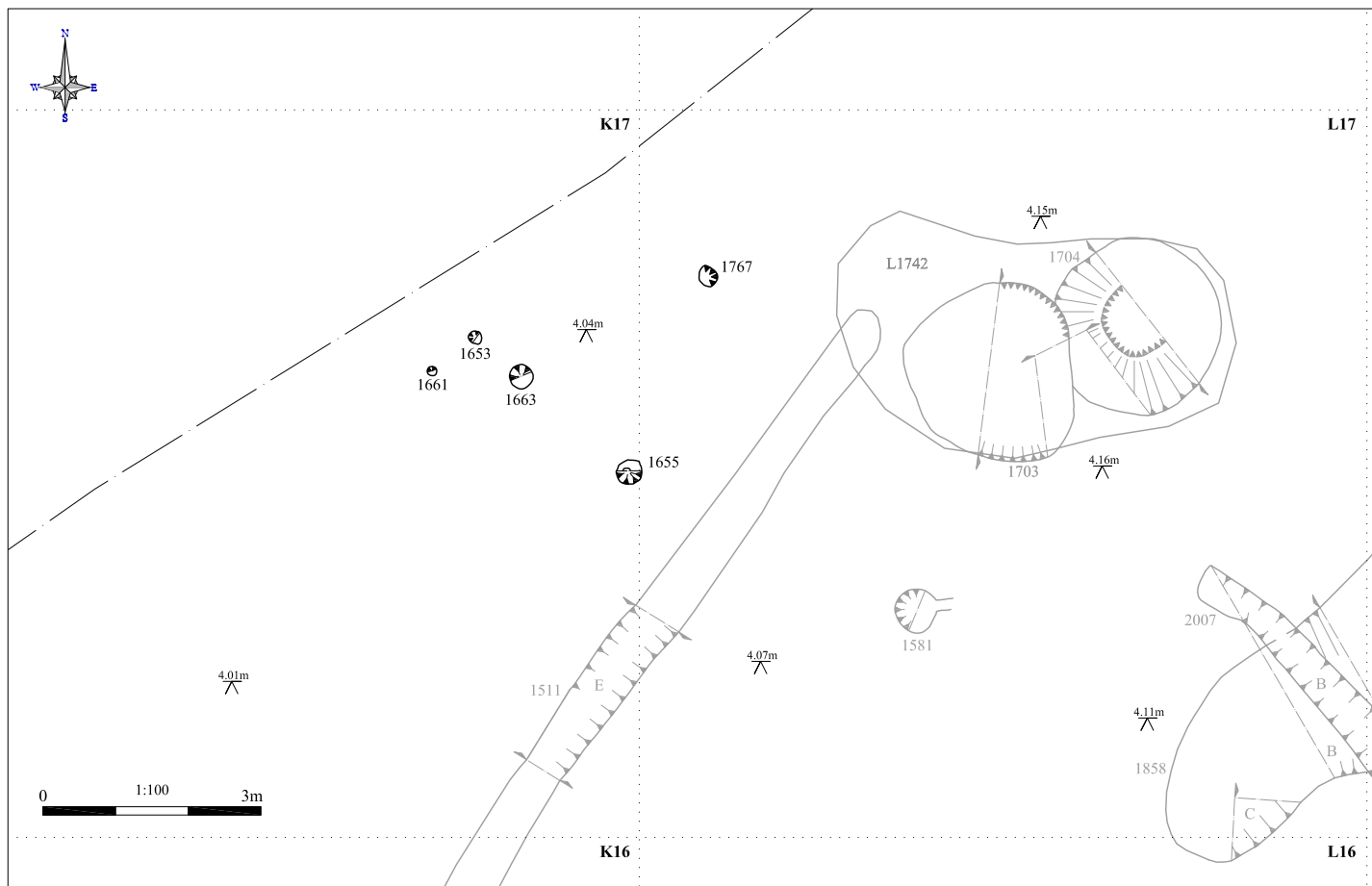
Roman Sub-Phase 6 pit/posthole cluster (2/10)



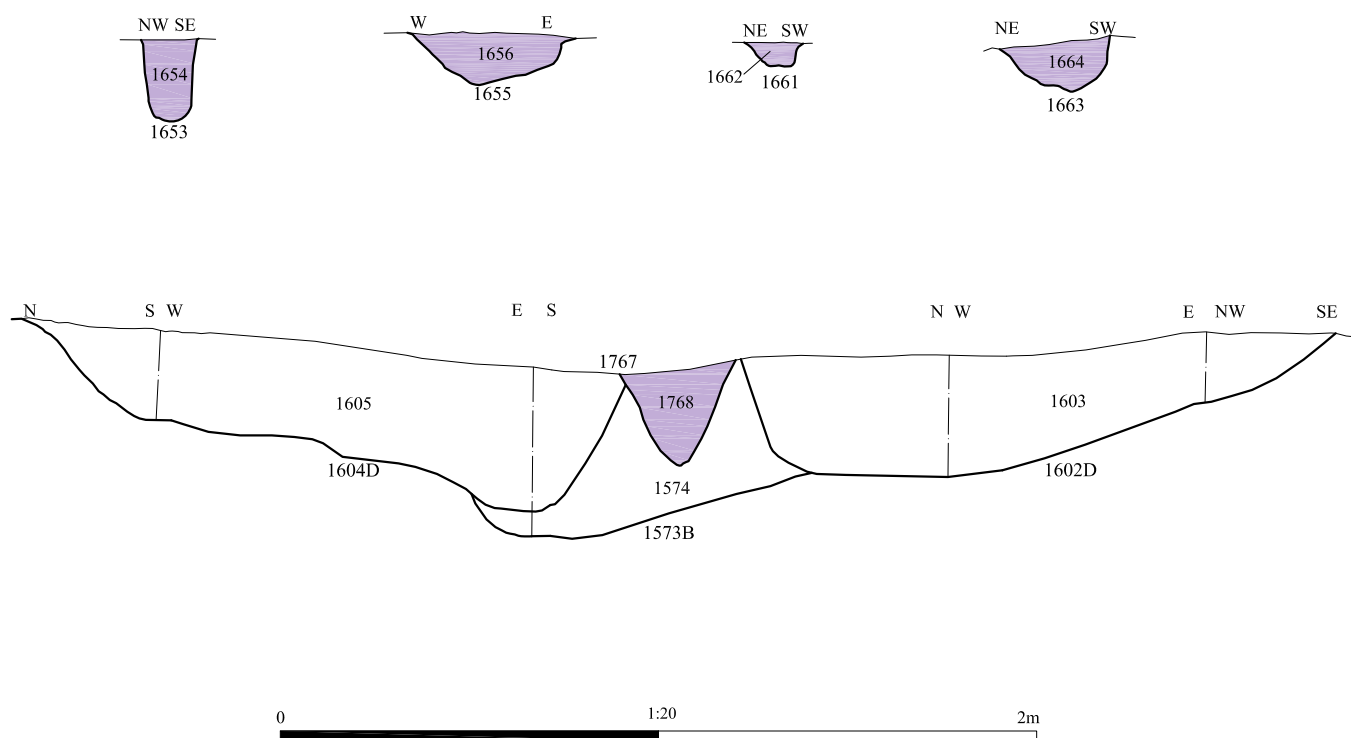


Roman Sub-Phase 6 pit/posthole cluster (3/10)



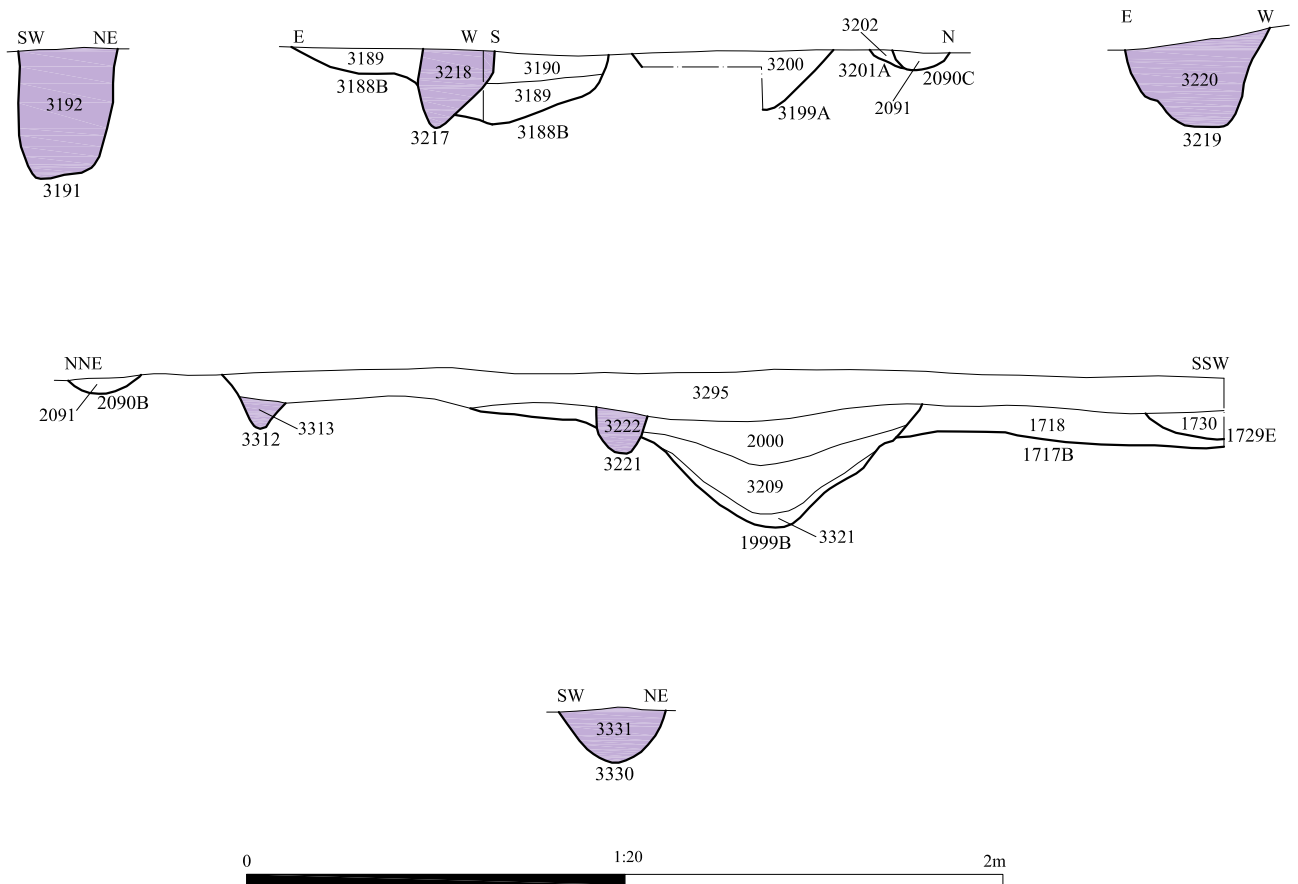


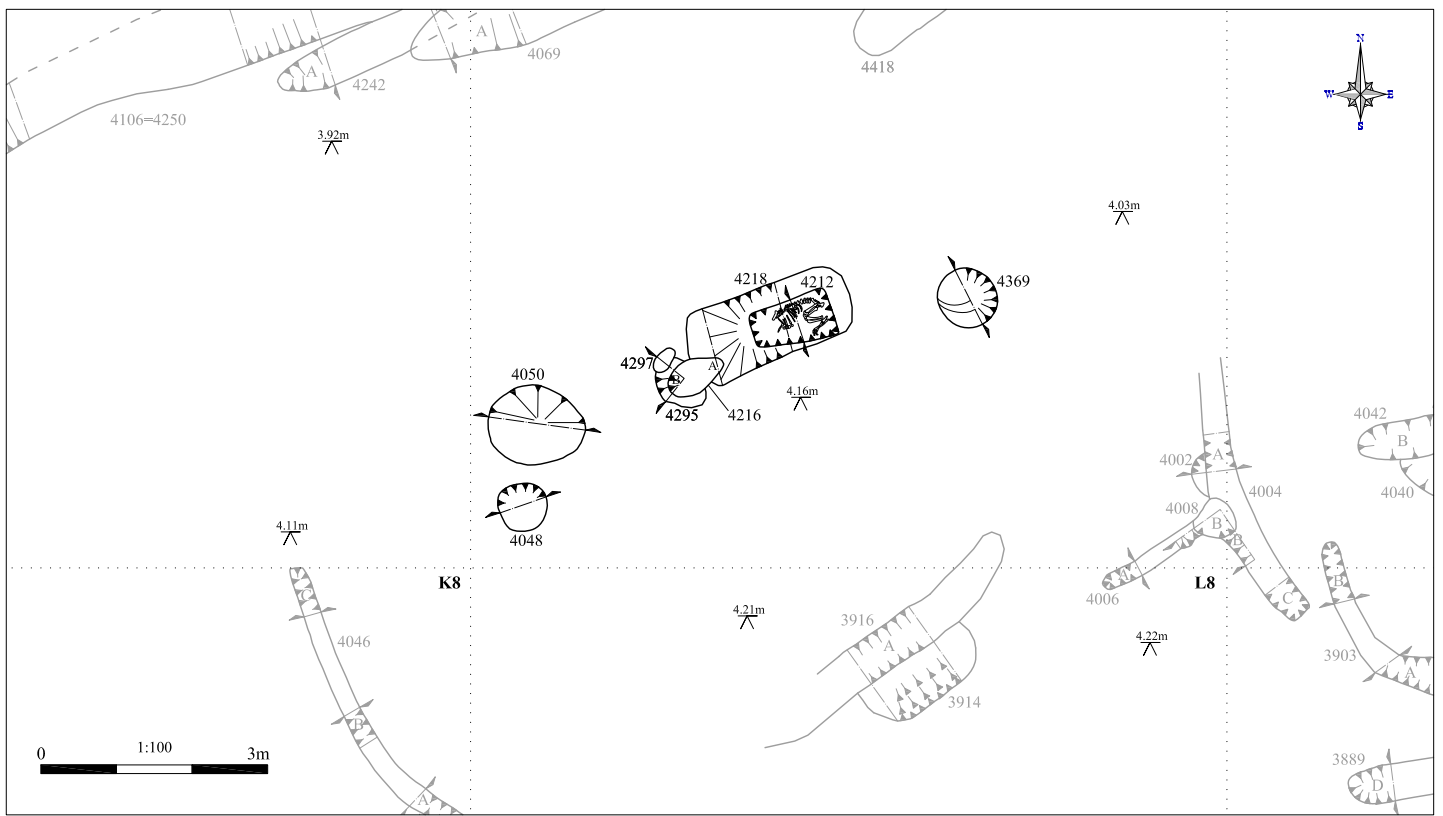
Roman Sub-Phase 6 pit/posthole cluster (4/10)



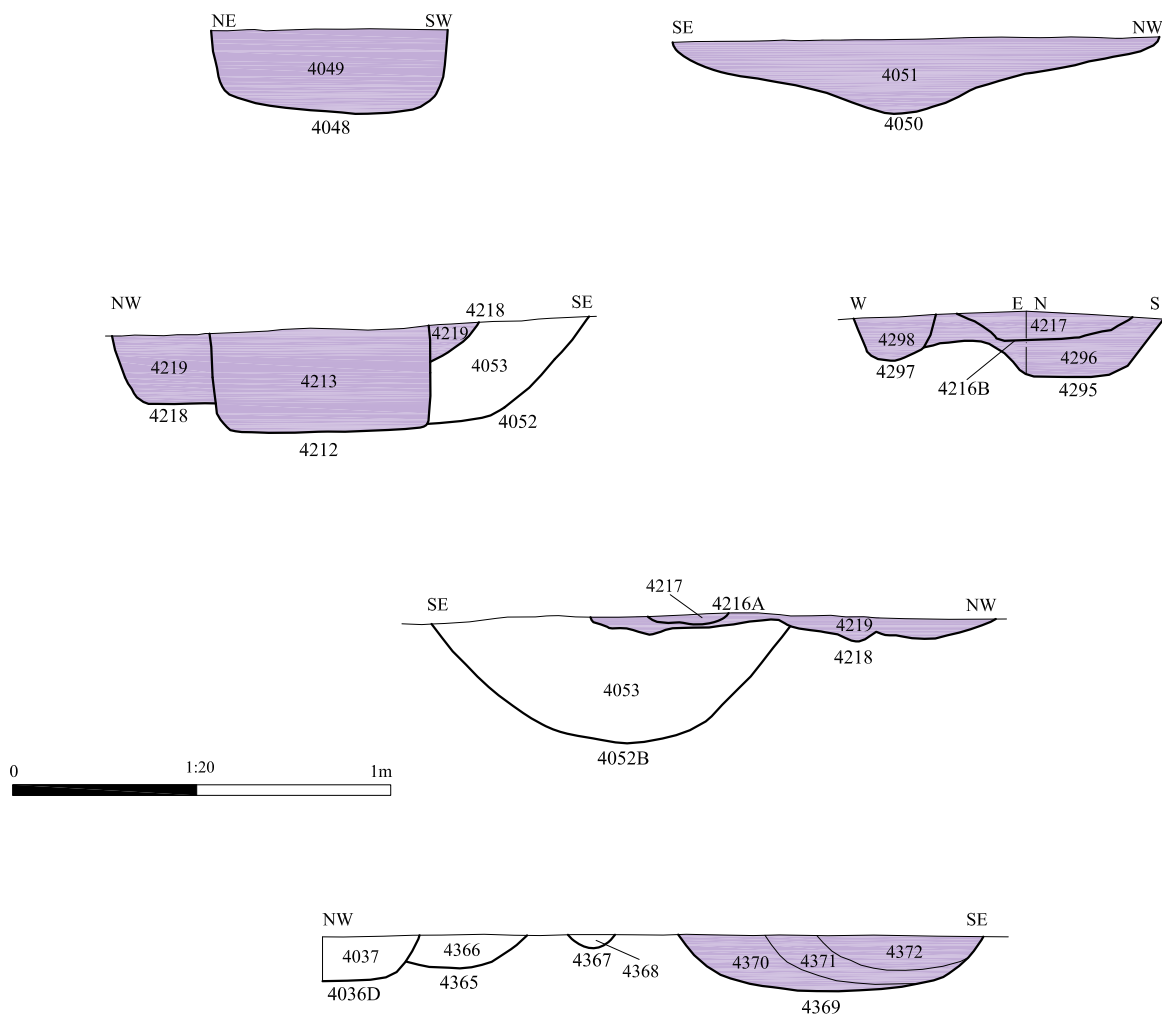


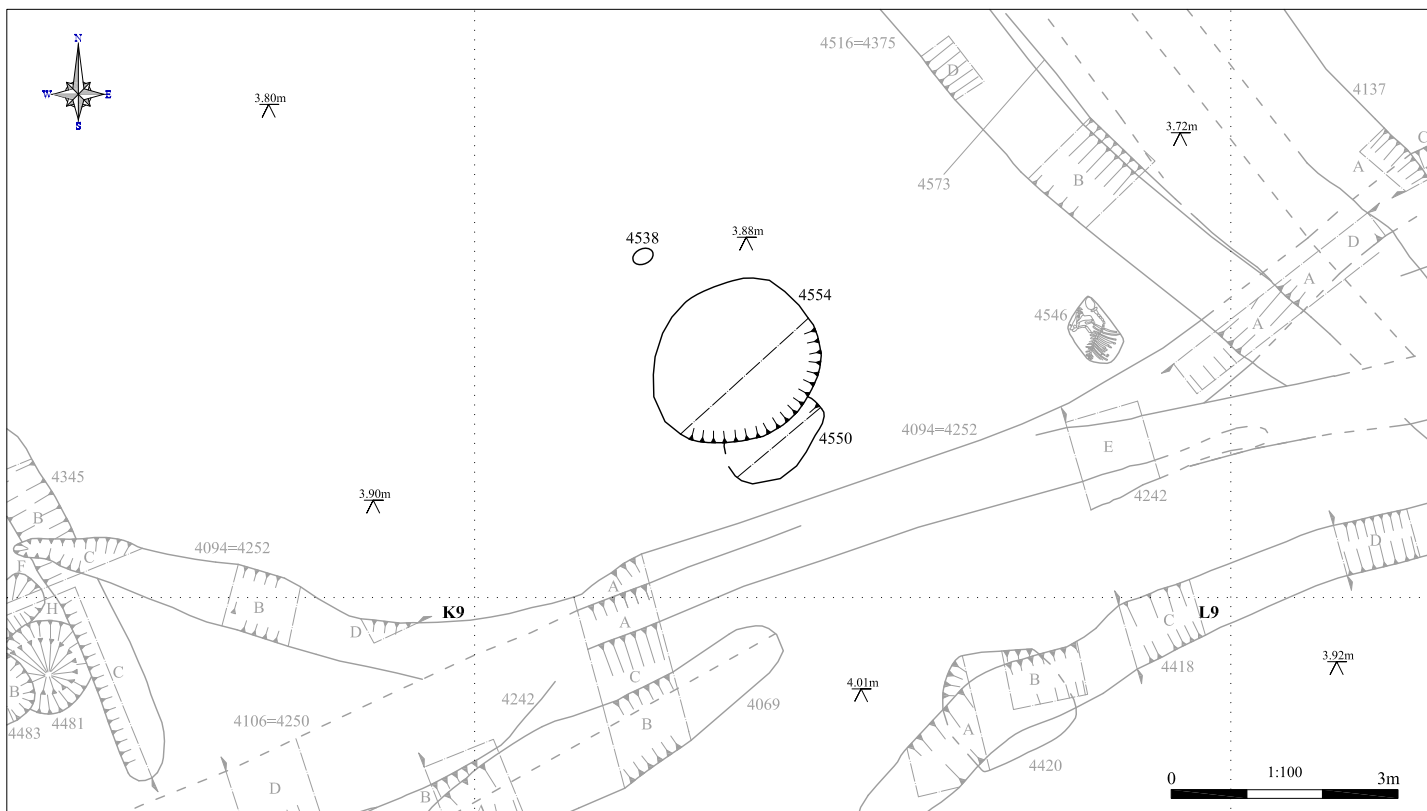
Roman Sub-Phase 6 pit/posthole cluster (5/10)



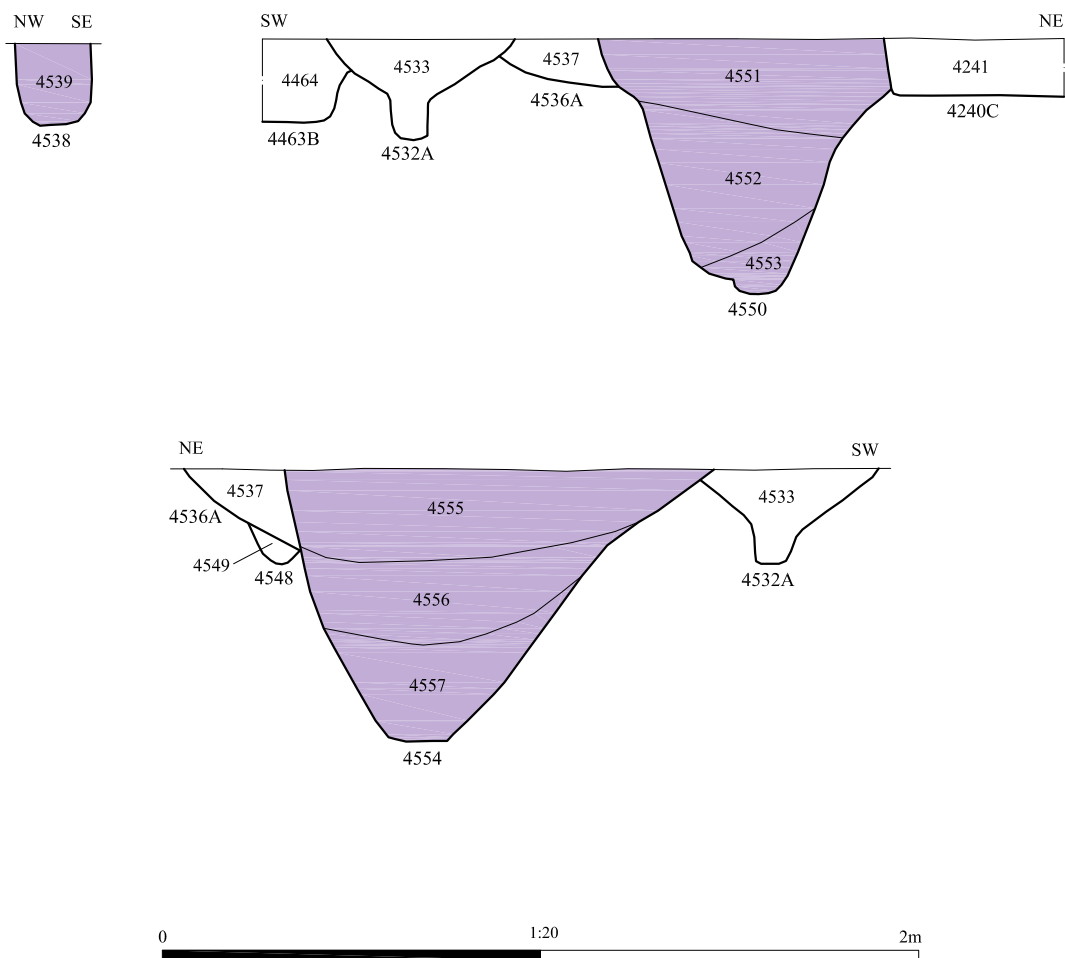


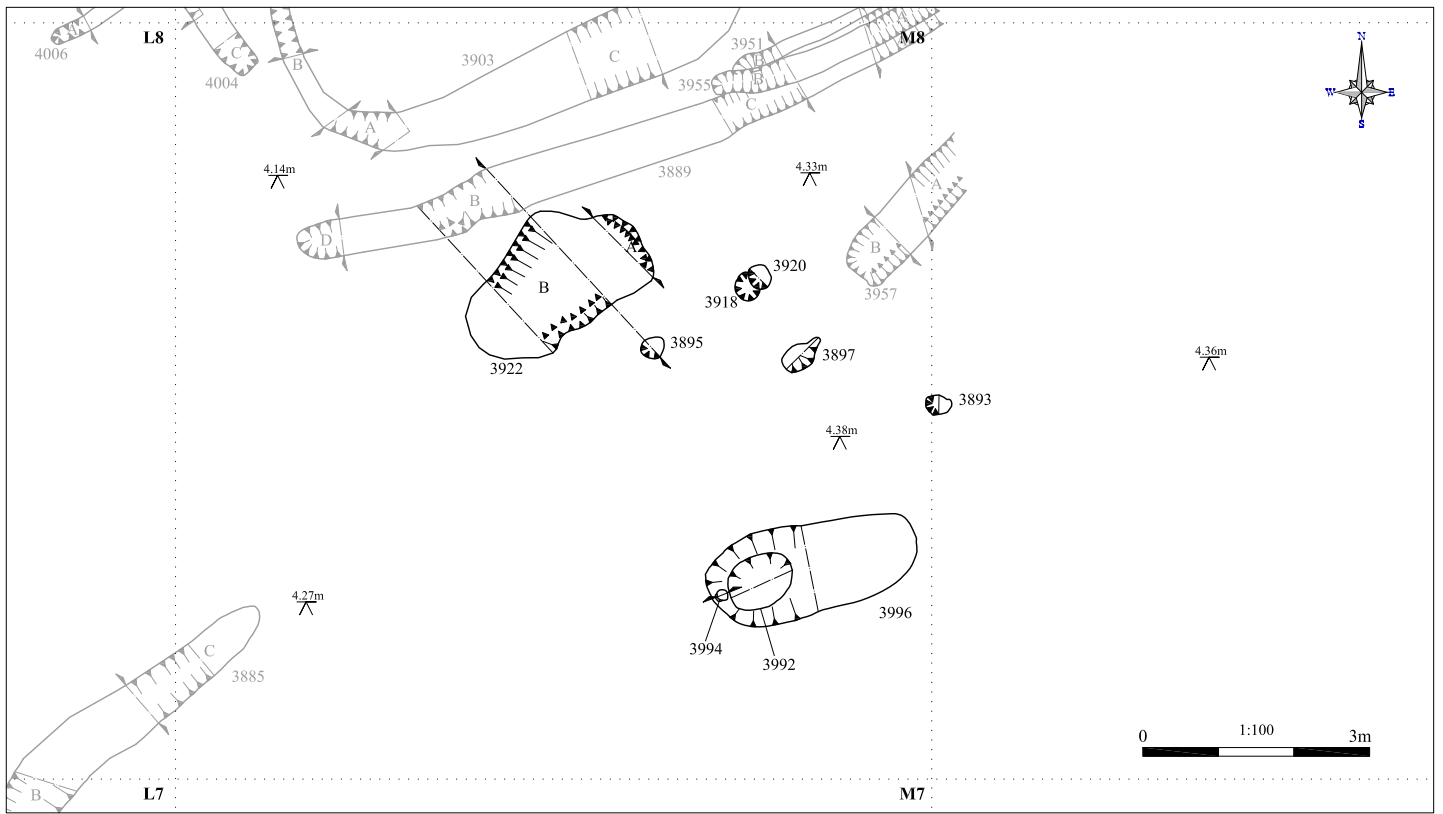
Roman Sub-Phase 6 pit/posthole cluster (7/10)



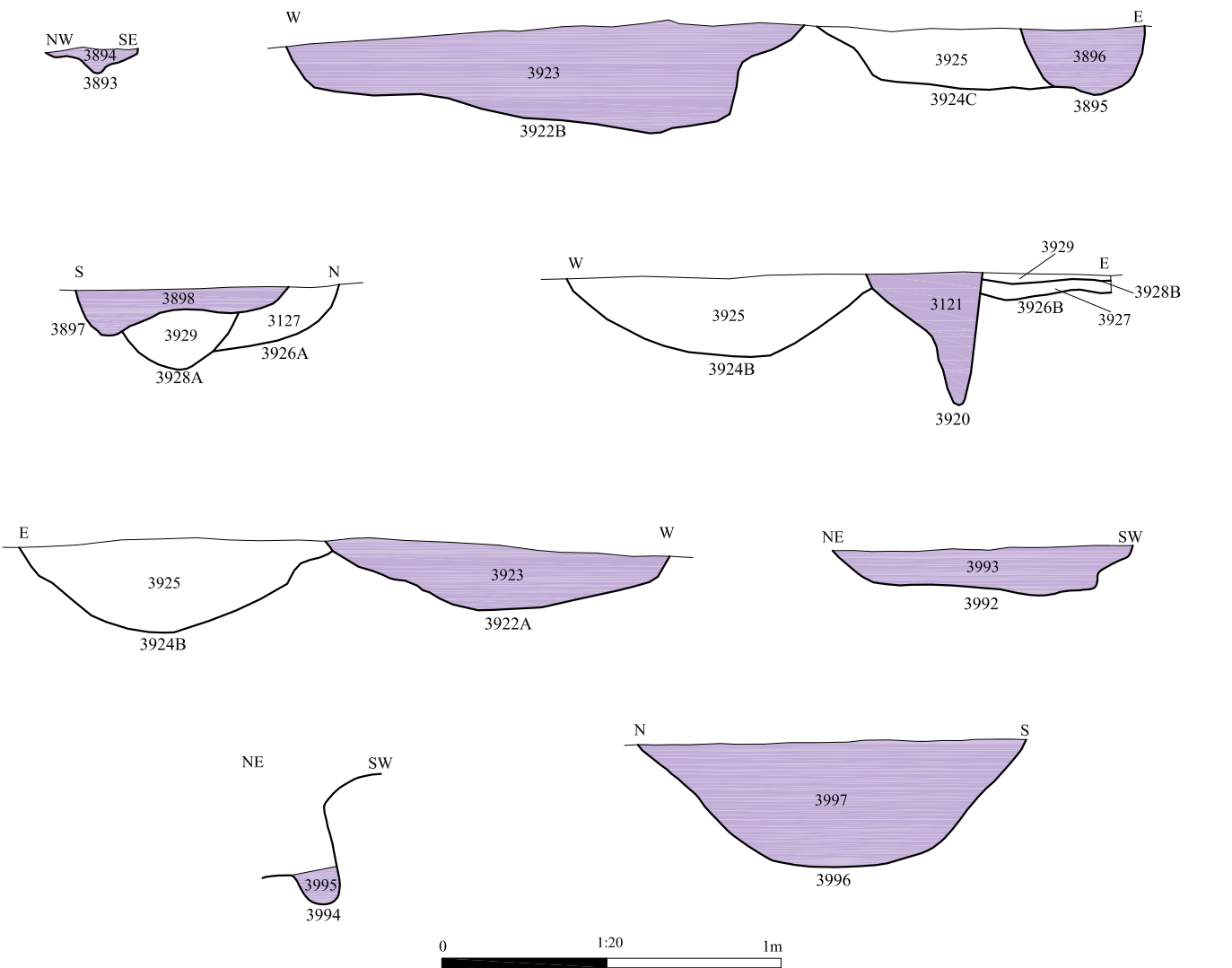


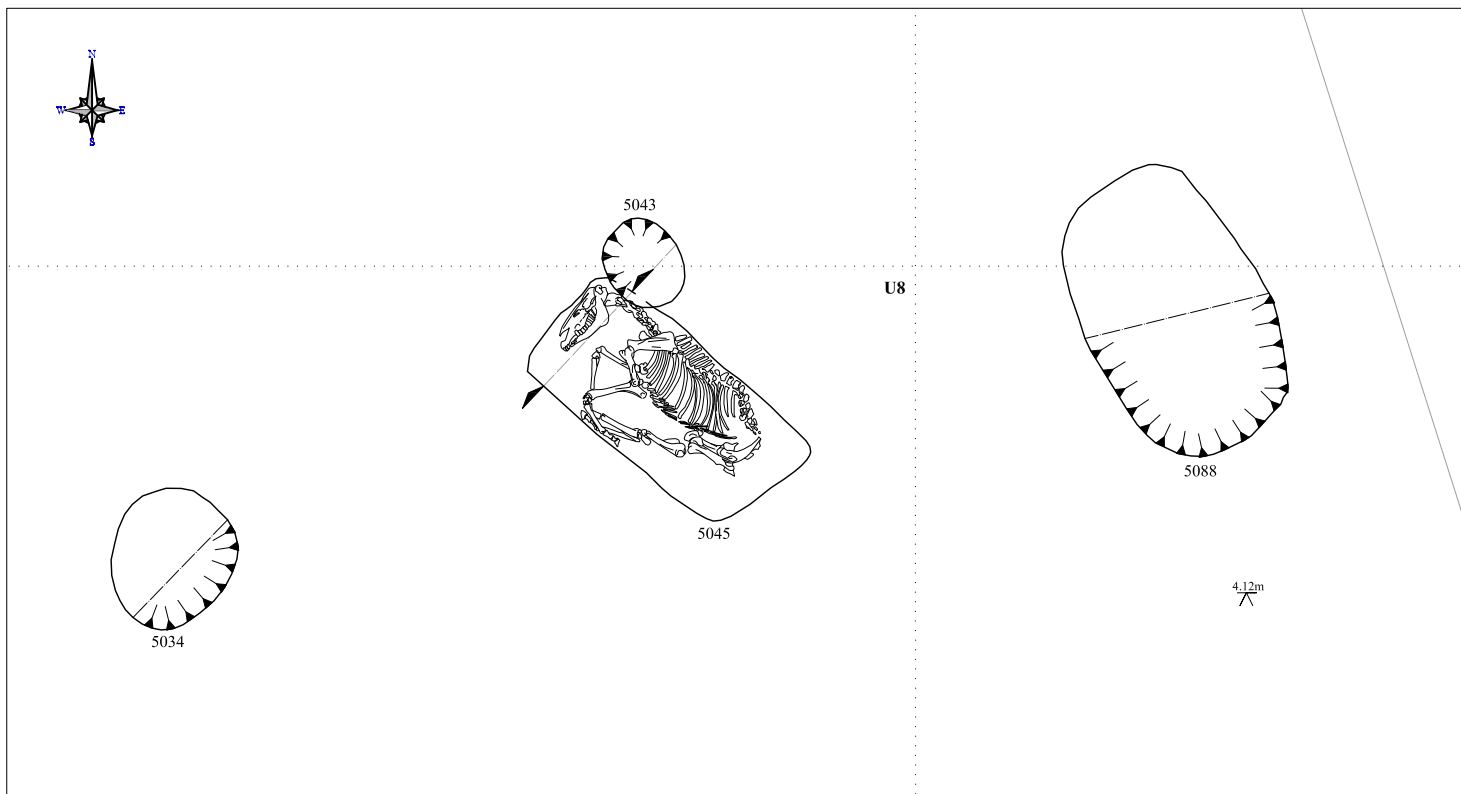
Roman Sub-Phase 6 pit/posthole cluster (8/10)



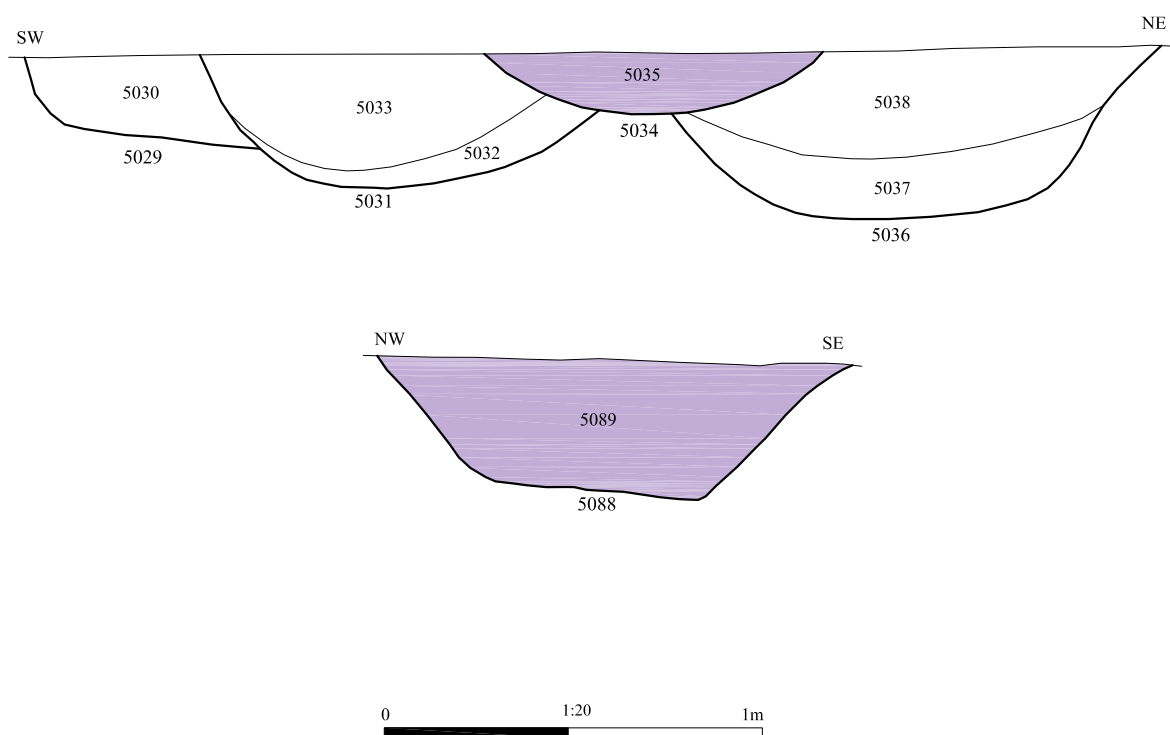


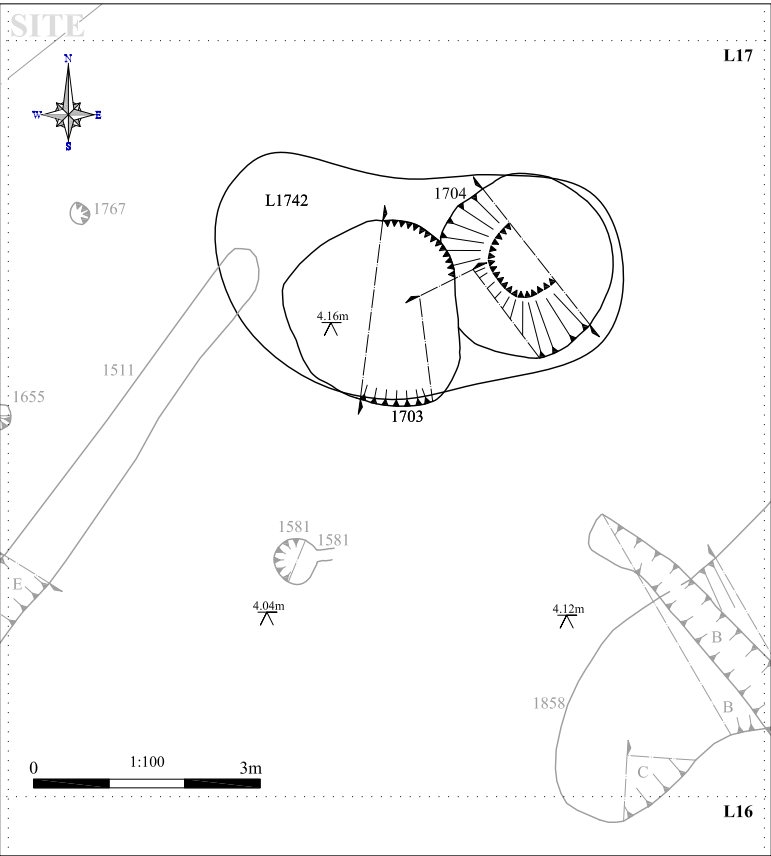
Roman Sub-Phase 6 pit/posthole cluster (9/10)



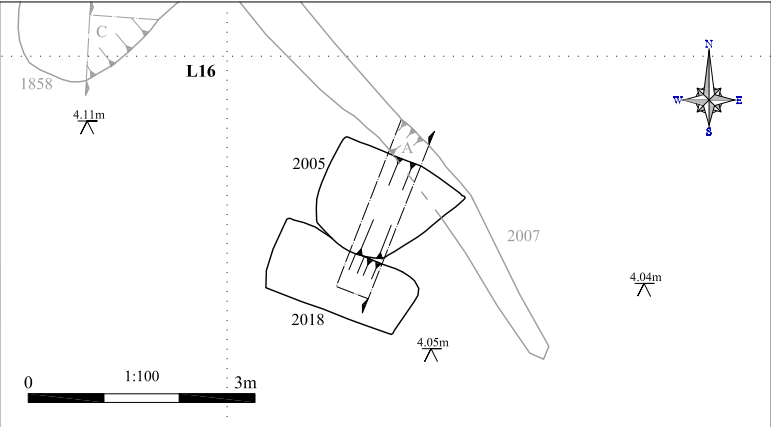
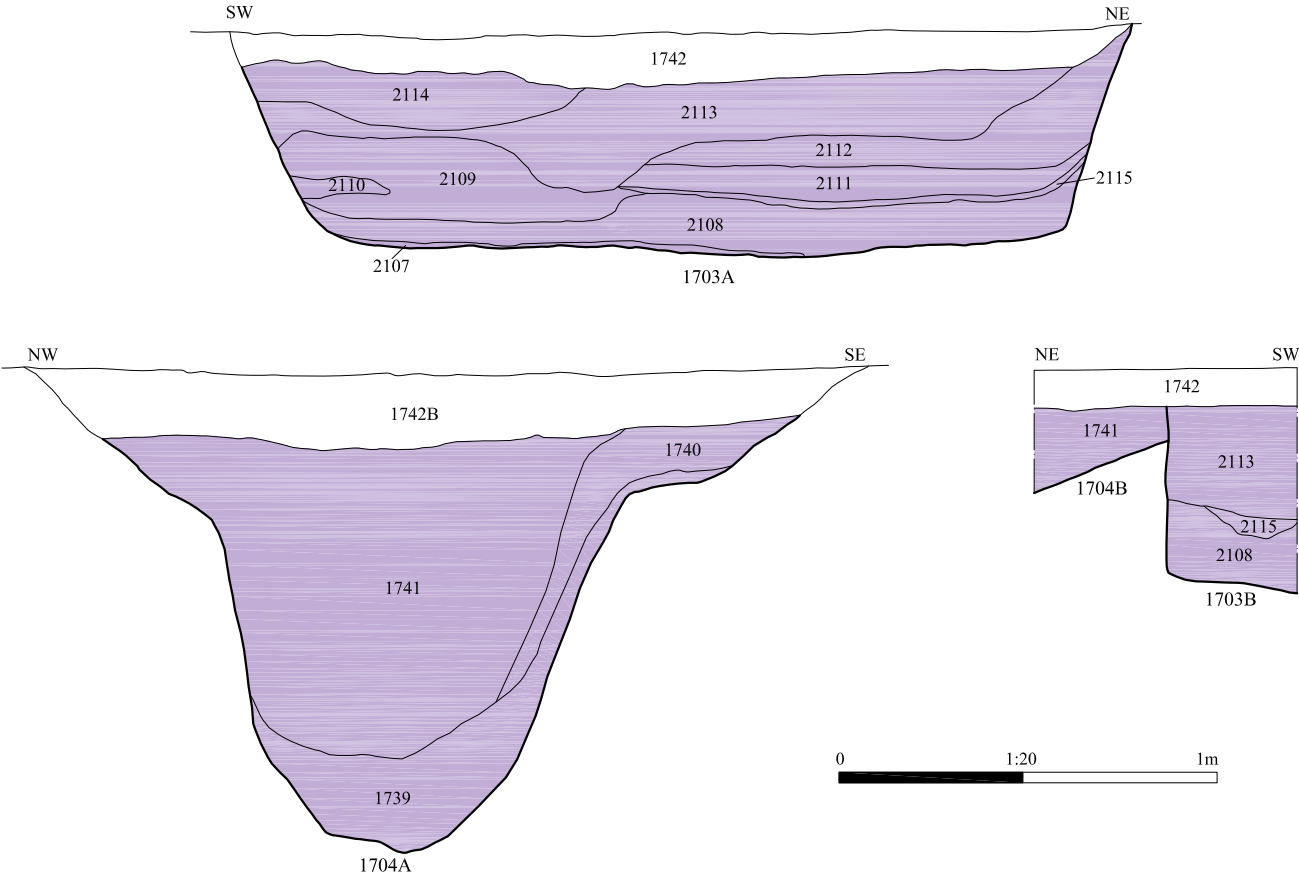


Roman Sub-Phase 6 pit/posthole cluster (10/10)

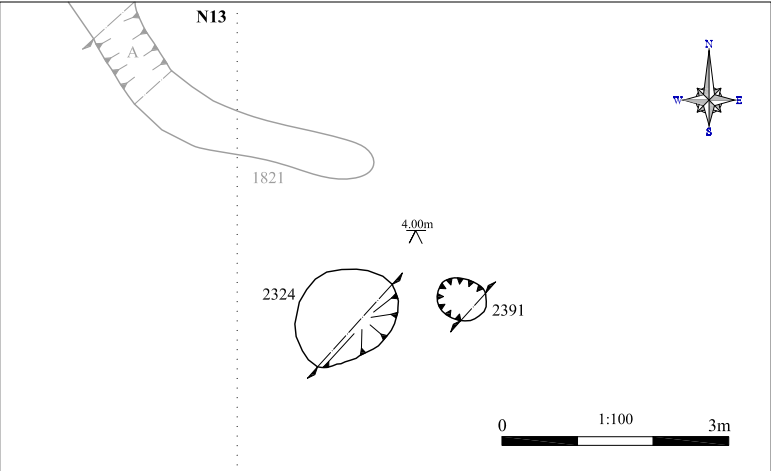
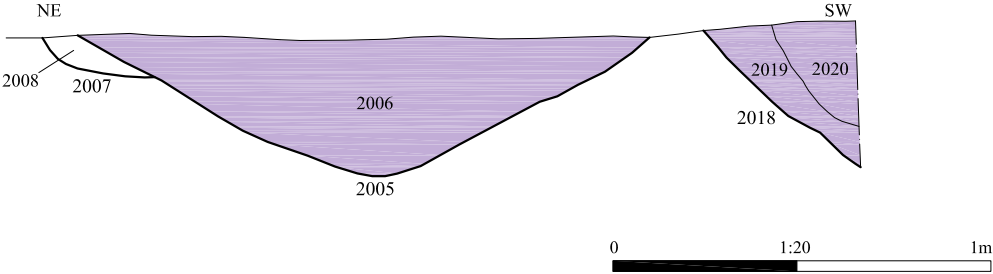




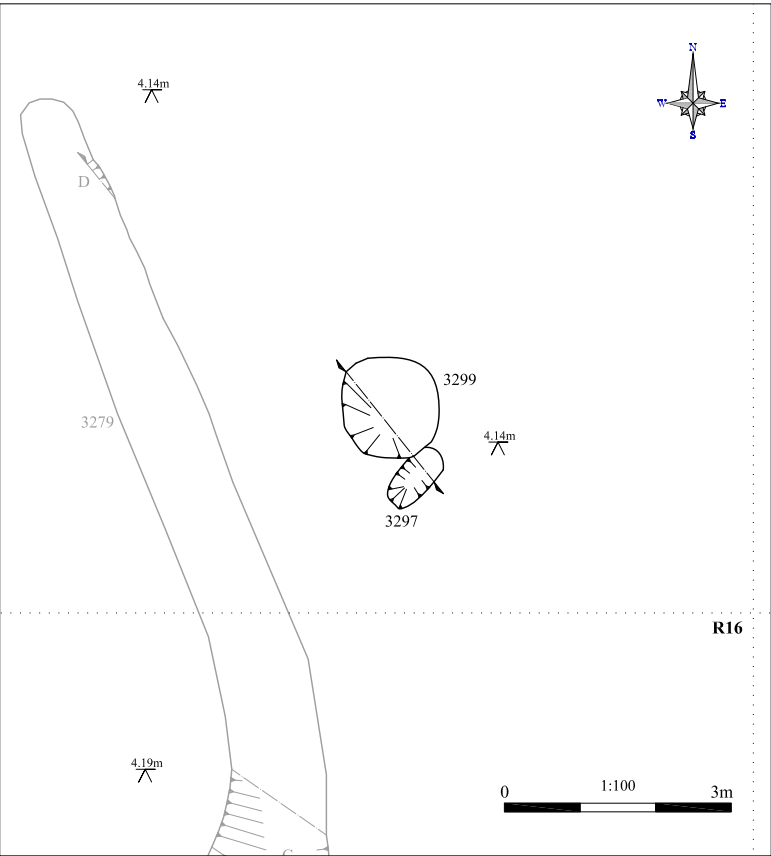
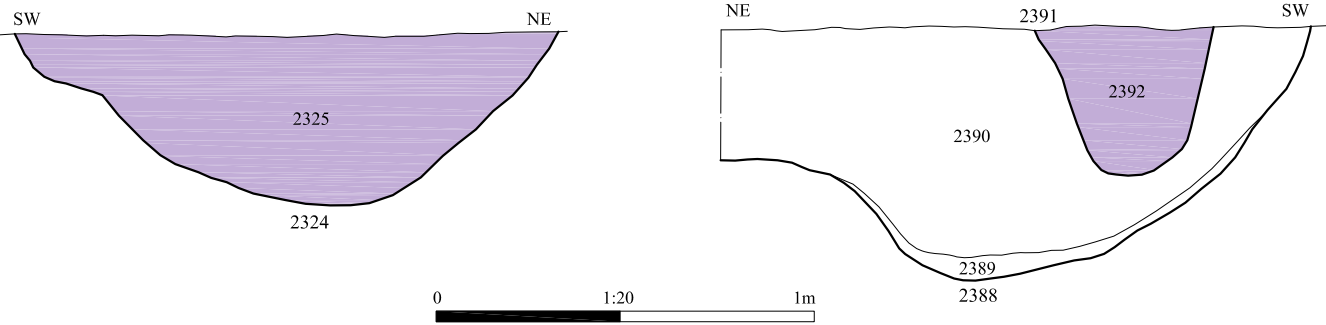
Roman Sub-Phase 6 pit/posthole pair (1/4)



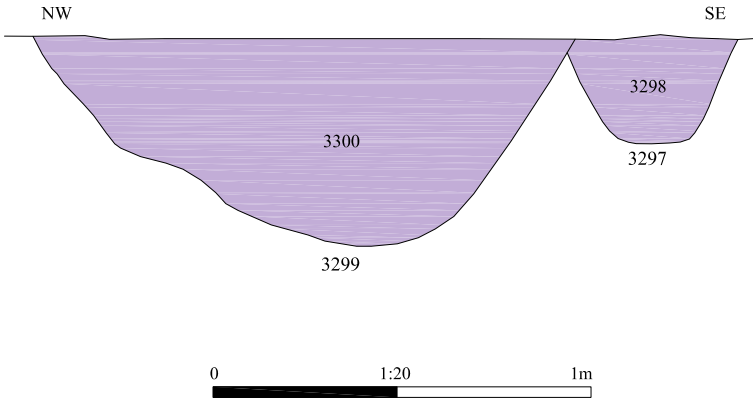
Roman Sub-Phase 6 pit/posthole pair (2/4)

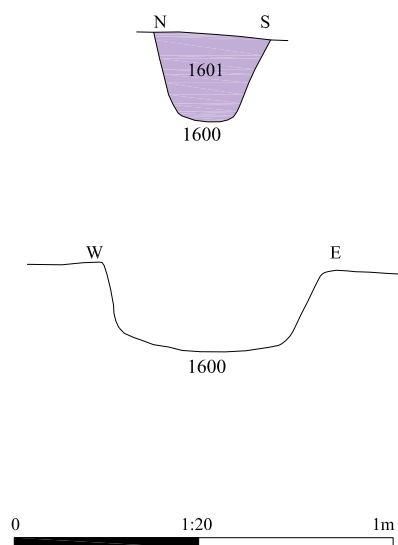
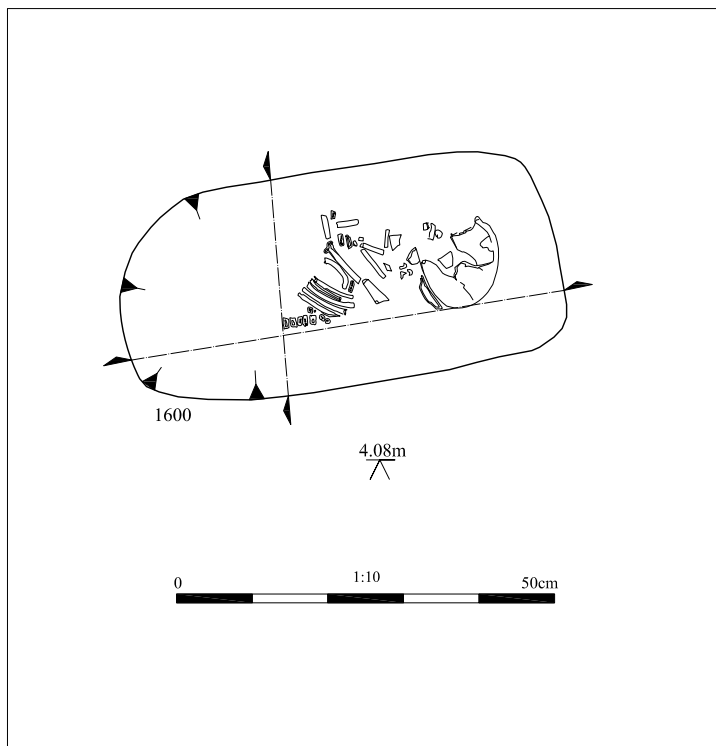
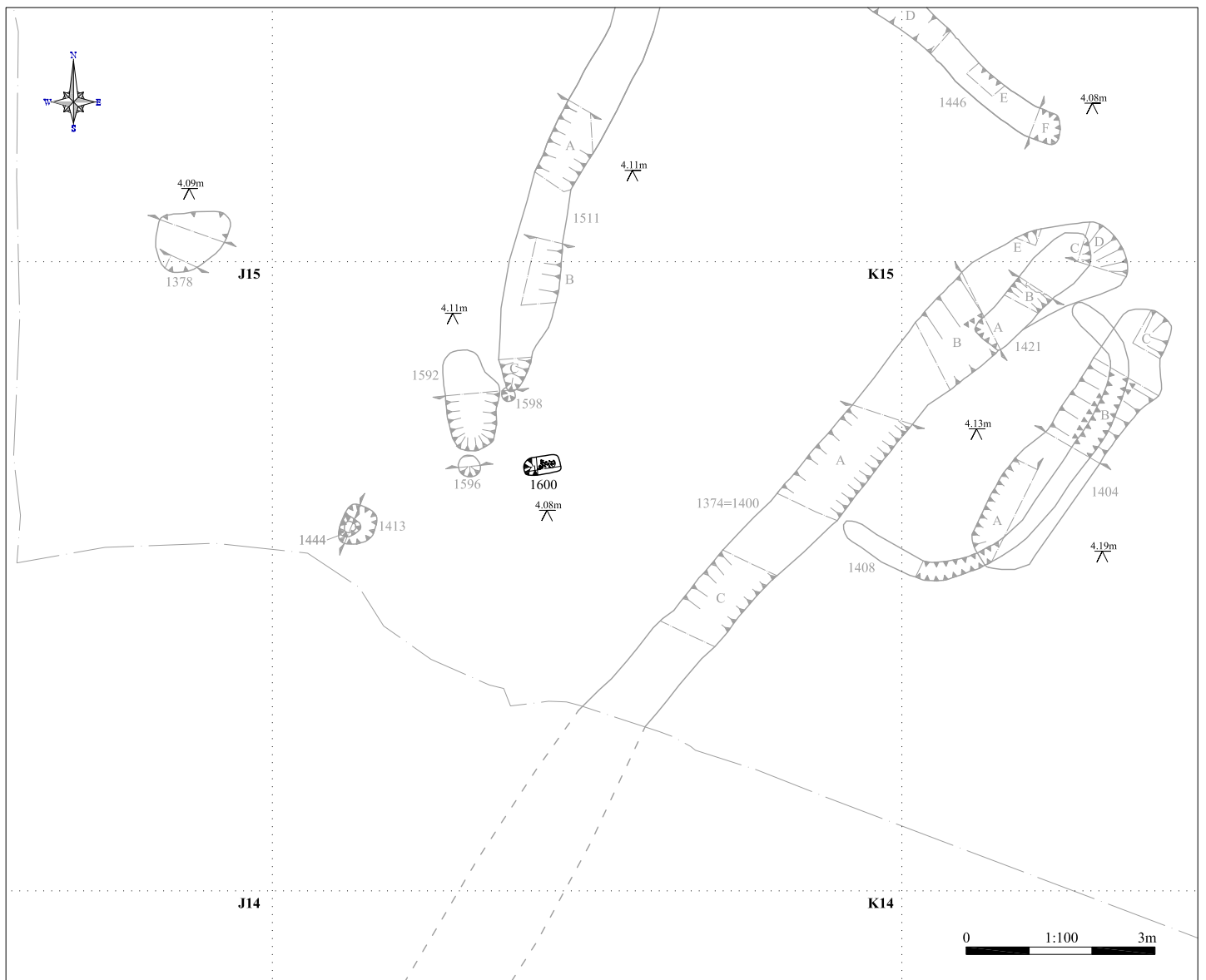


Roman Sub-Phase 6 pit/posthole pair (3/4)

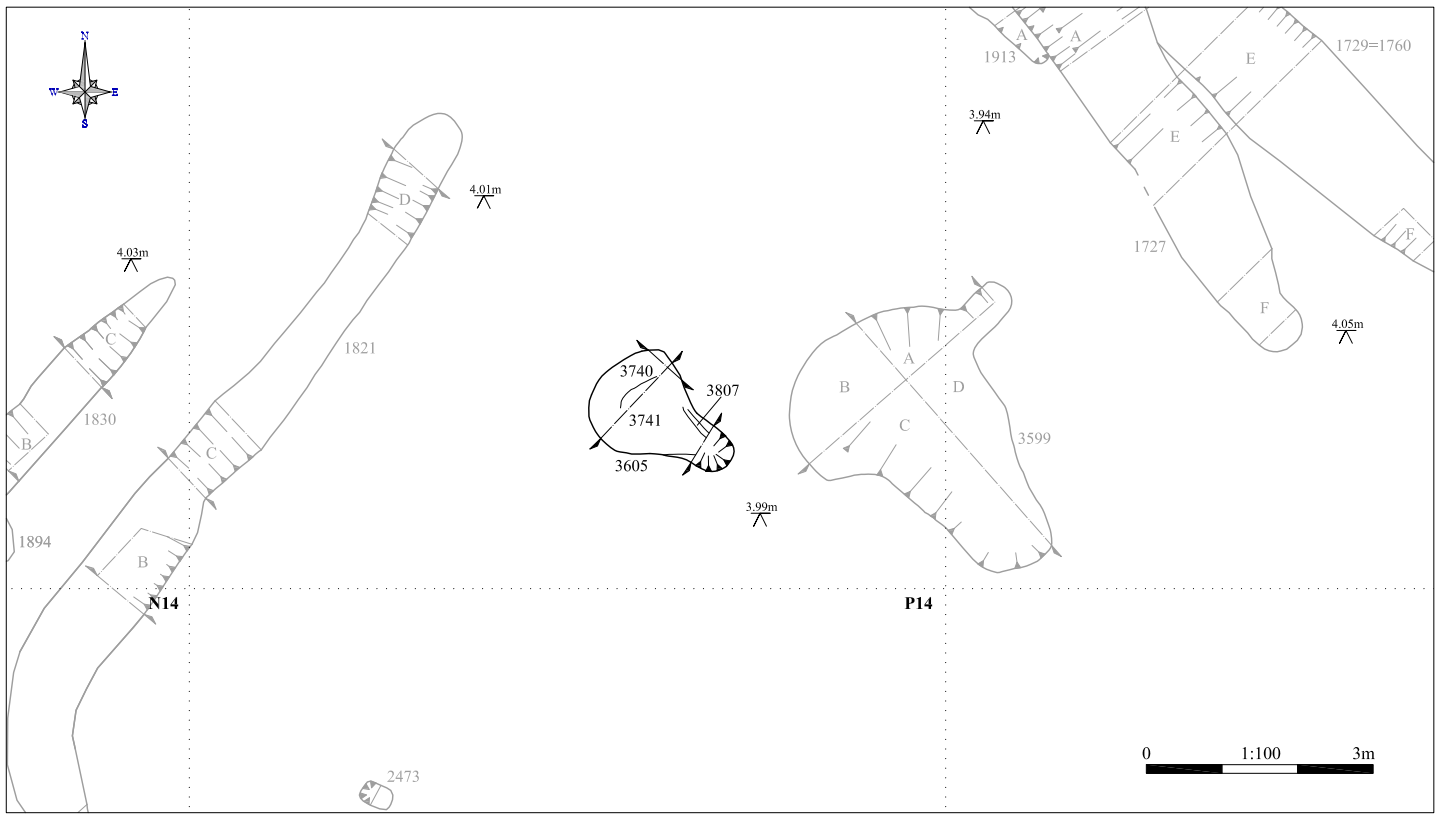


Roman Sub-Phase 6 pit/posthole pair (4/4)

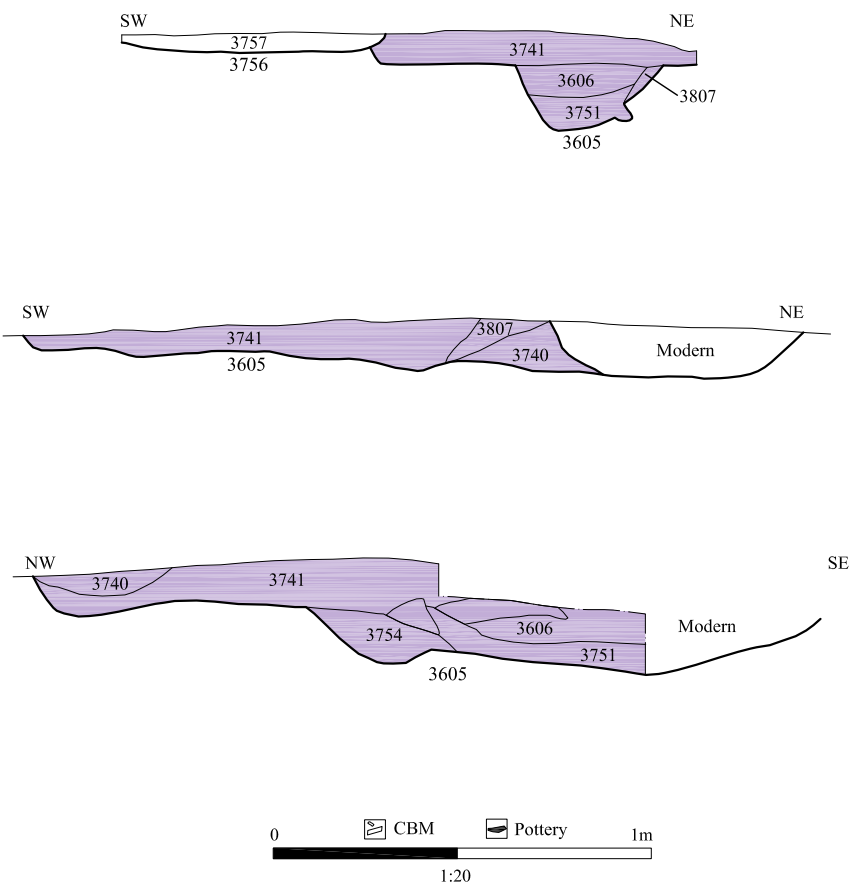


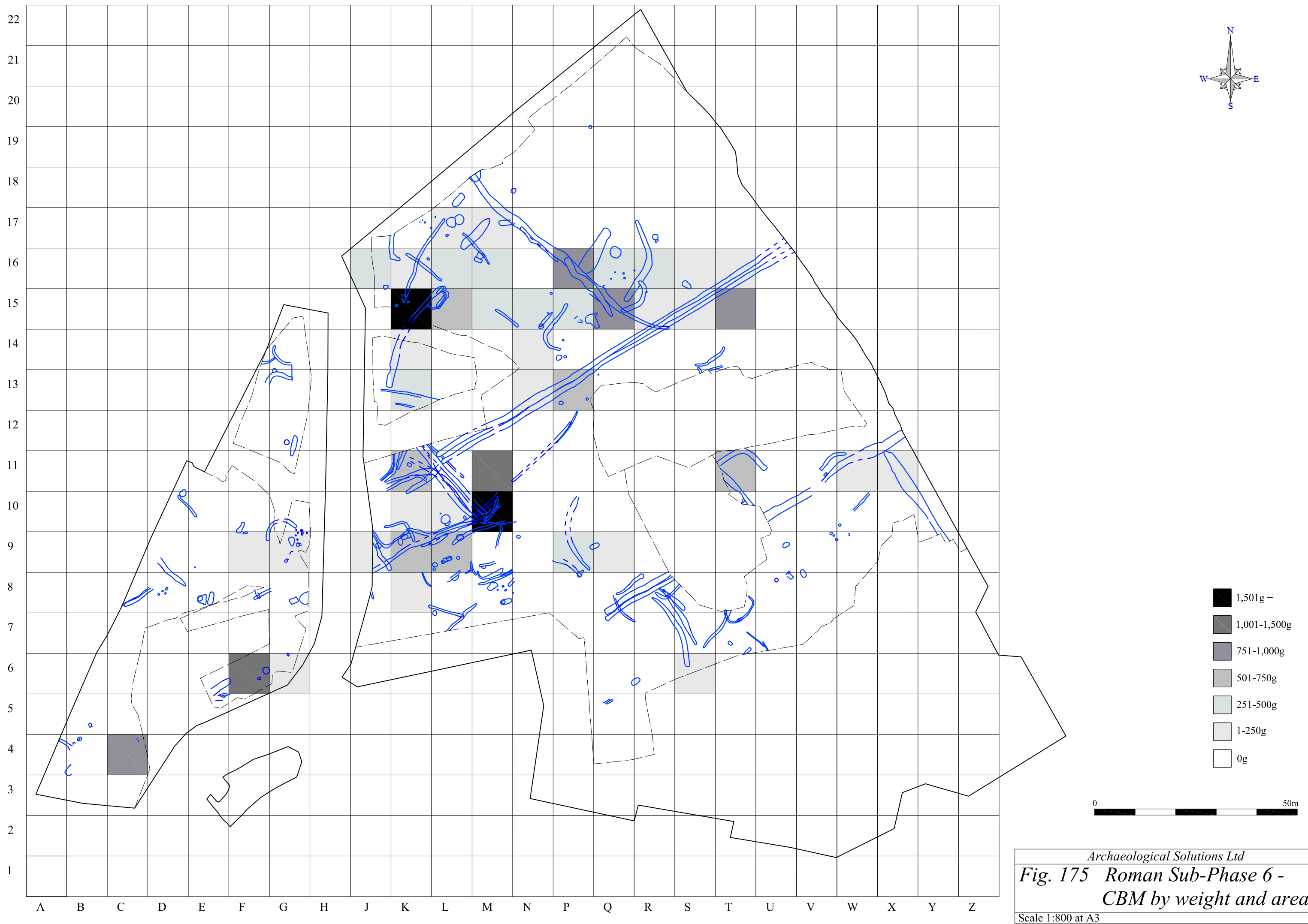


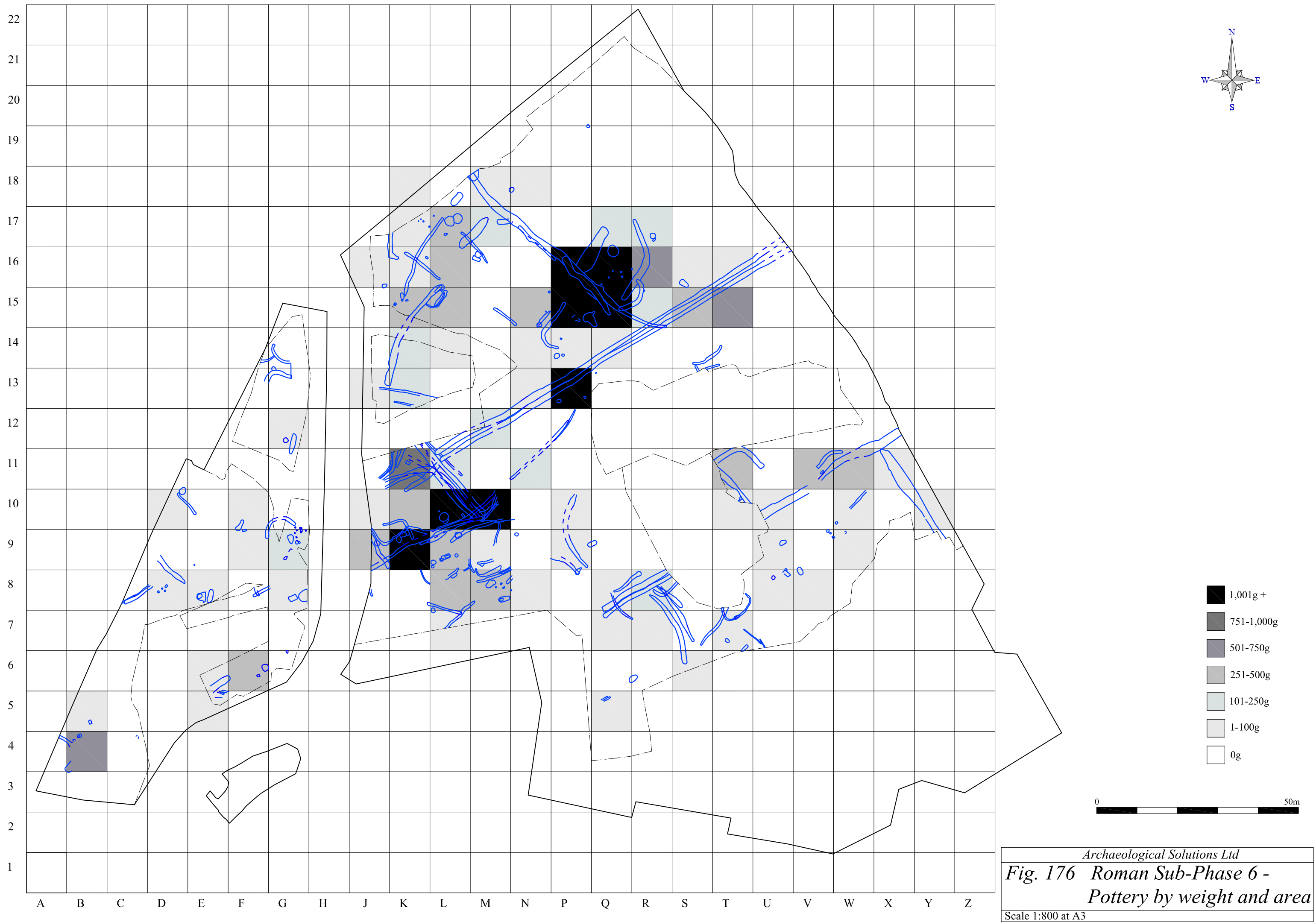
Roman Sub-Phase 6 Grave Cut F1600 (SK1)



Possible Roman Sub-Phase 6 Kiln F3605



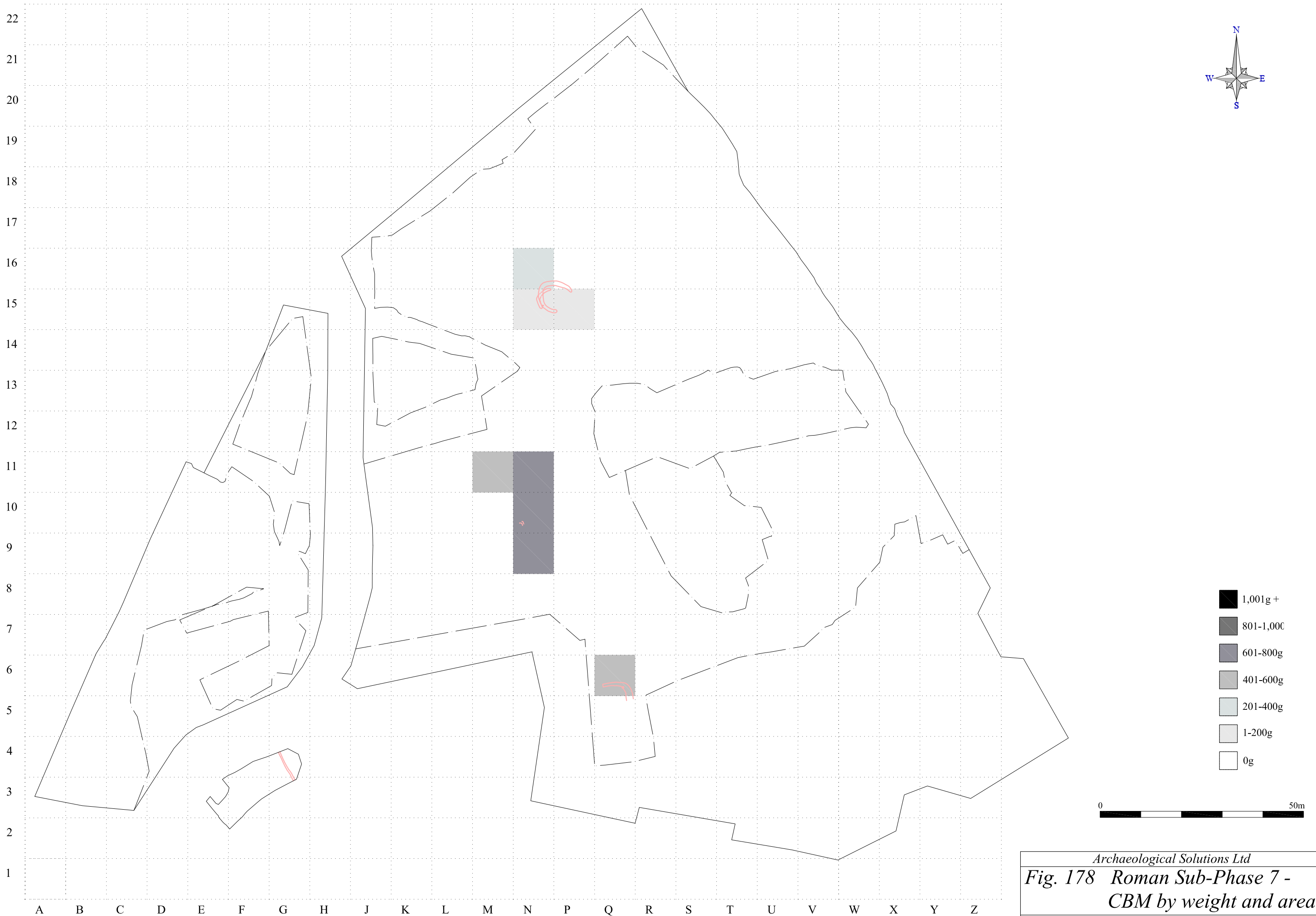




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**Fig. 176 Roman Sub-Phase 6 -
Pottery by weight and area**
Scale 1:800 at A3



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Fig. 177 Roman Sub-Phase 7
Scale 1:800 at A3



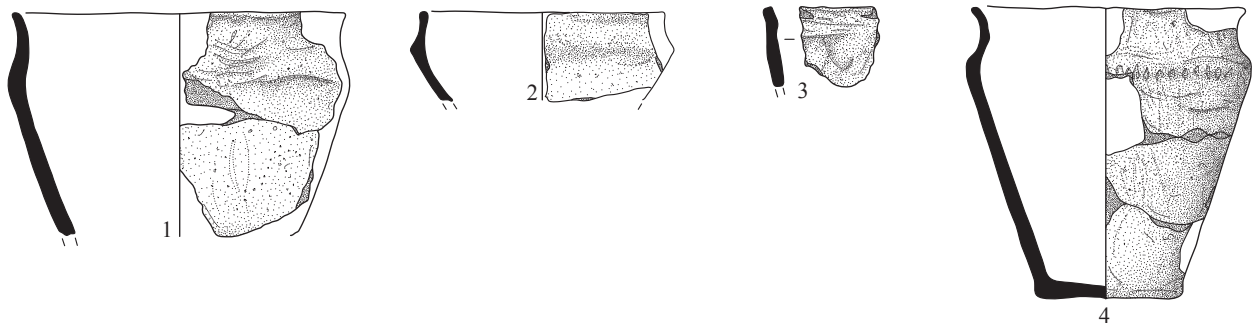
Archaeological Solutions Ltd
**Fig. 178 Roman Sub-Phase 7 -
CBM by weight and area**
Scale 1:800 at A3



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Fig. 179 Roman Sub-Phase 7 - Pottery by weight and area
Scale 1:800 at A3

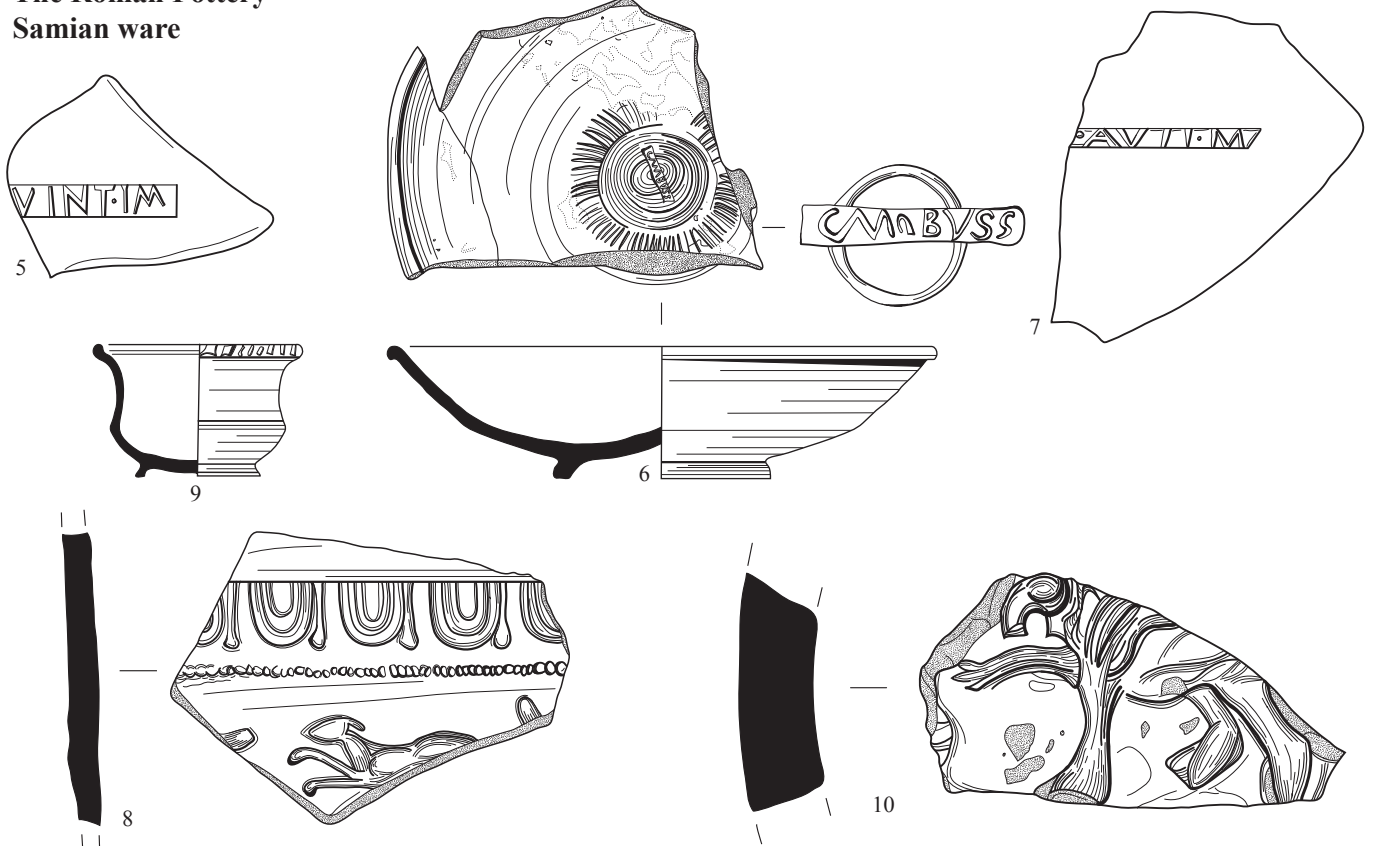


The Prehistoric Pottery

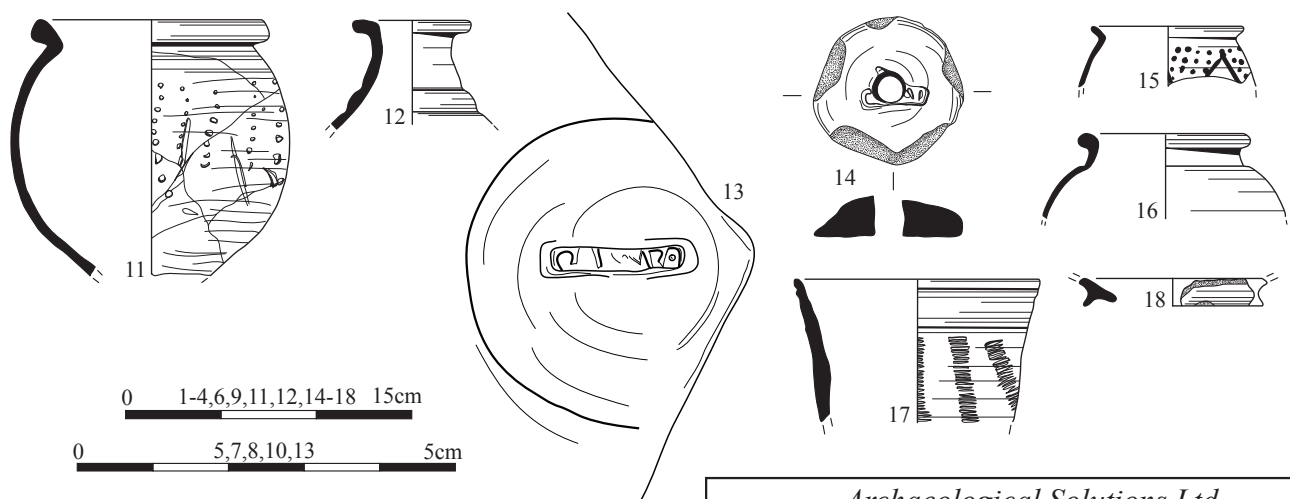


The Roman Pottery

Samian ware



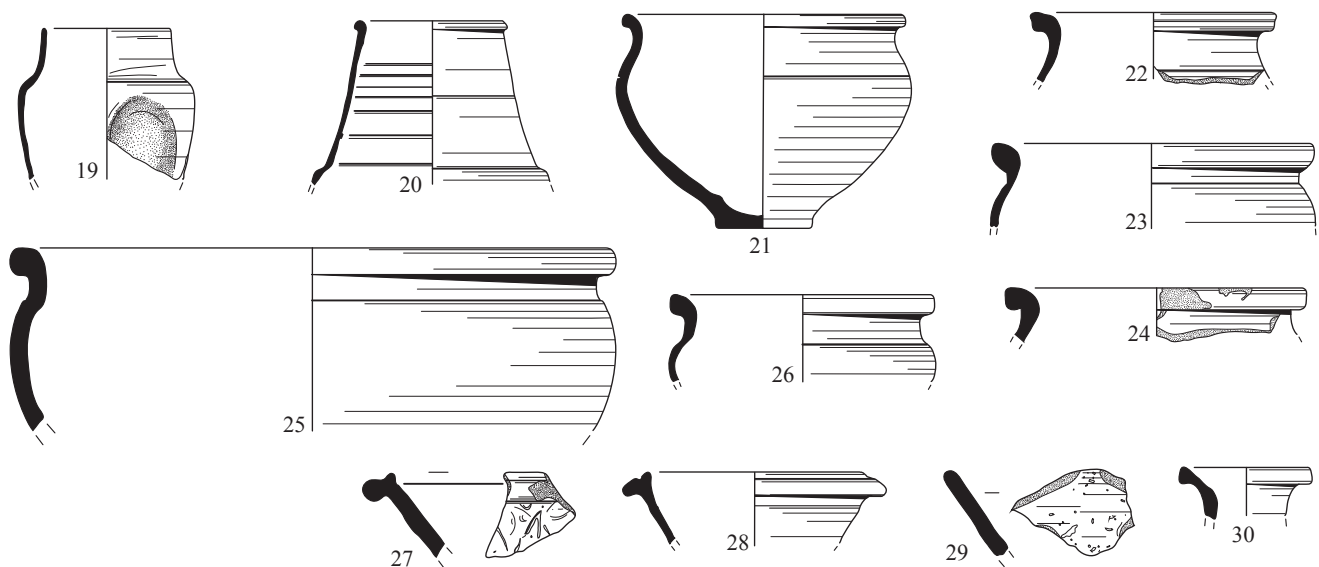
West Stow fine reduced ware, and un-sourced fine grey and oxidised wares



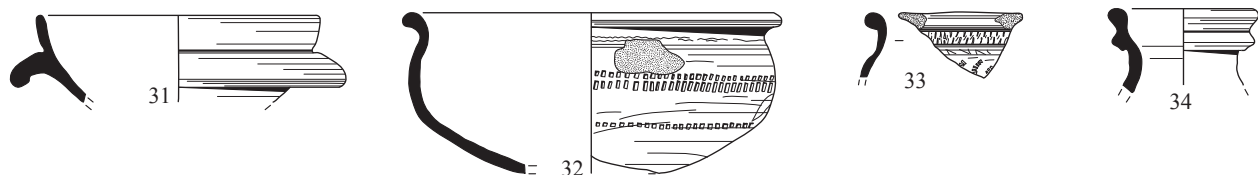
0 1-4,6,9,11,12,14-18 15cm
0 5,7,8,10,13 5cm

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Fig. 181 Pottery illustrations
Scale 1-4,6,9,11,12,14-18 at 1:4 & 5,7,8,10,13 at 1:1 at A4

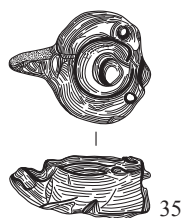
Lower Nene Valley colour-coated ware



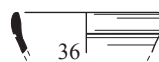
Oxfordshire red-slipped ware and Hadham oxidised ware



A London mica-dusted ware lamp

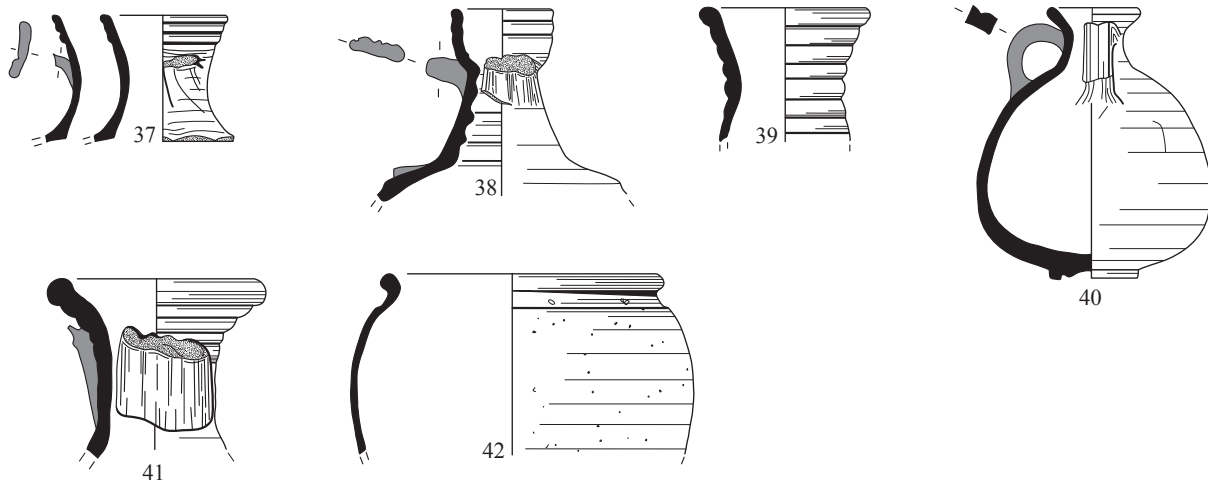


Continental fine ware

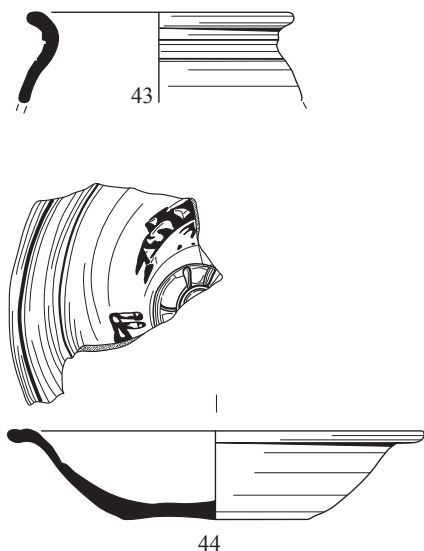


0 31-42 15cm

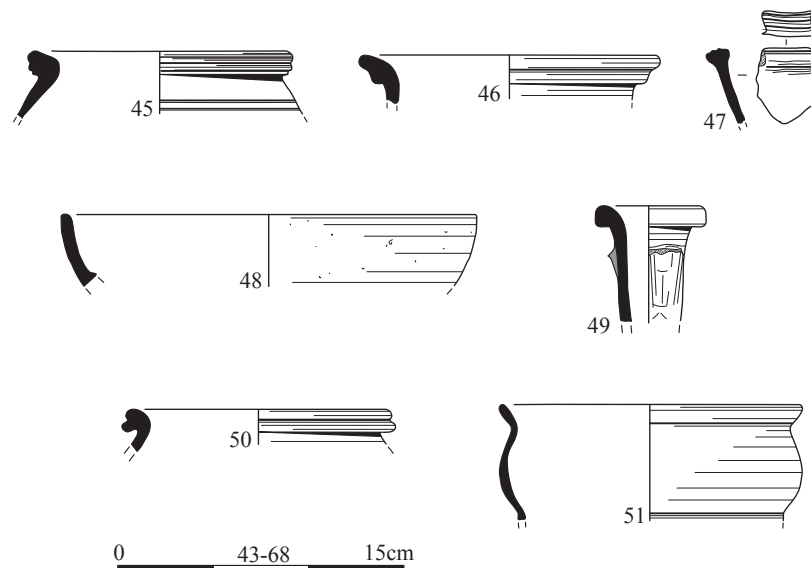
West Stow cream wares



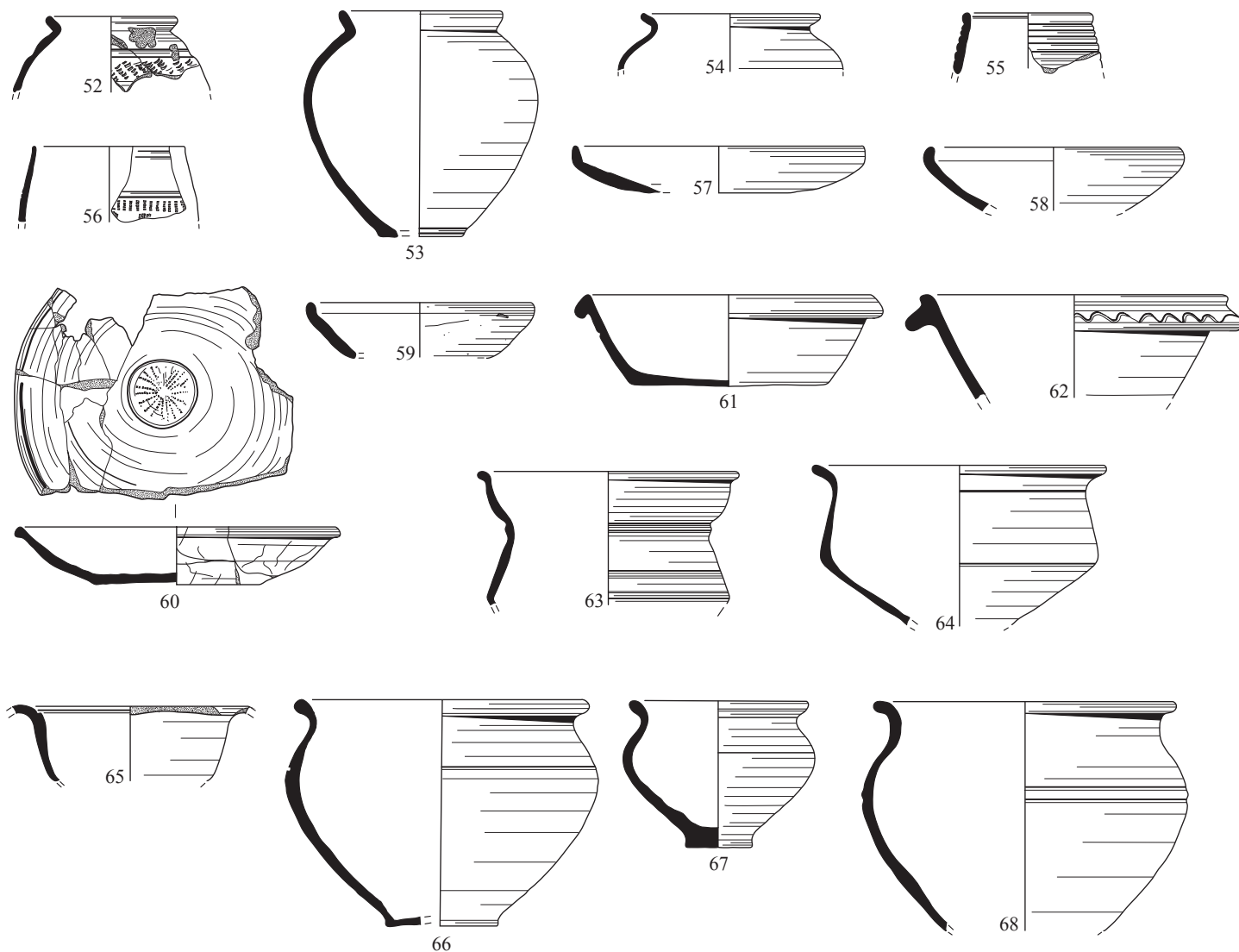
Lower Nene Valley white ware

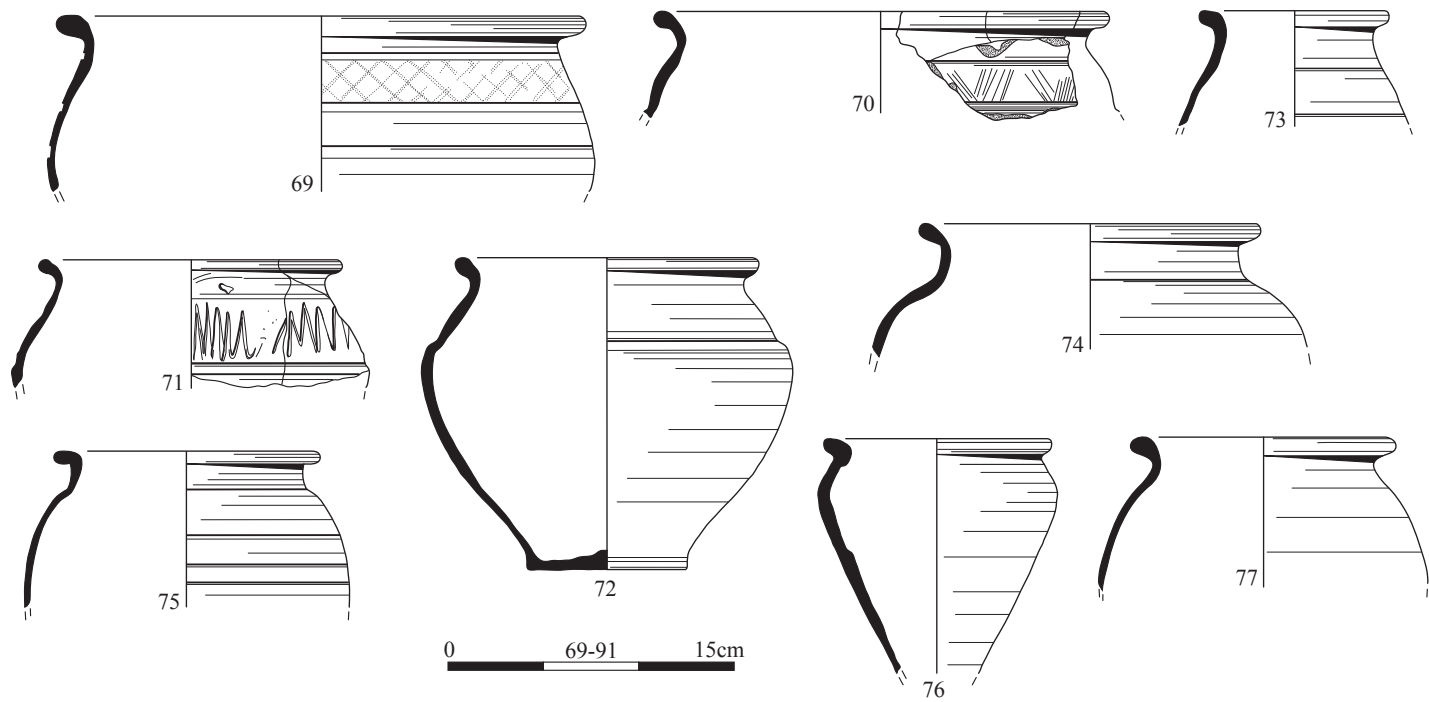


Other white and white-slipped wares

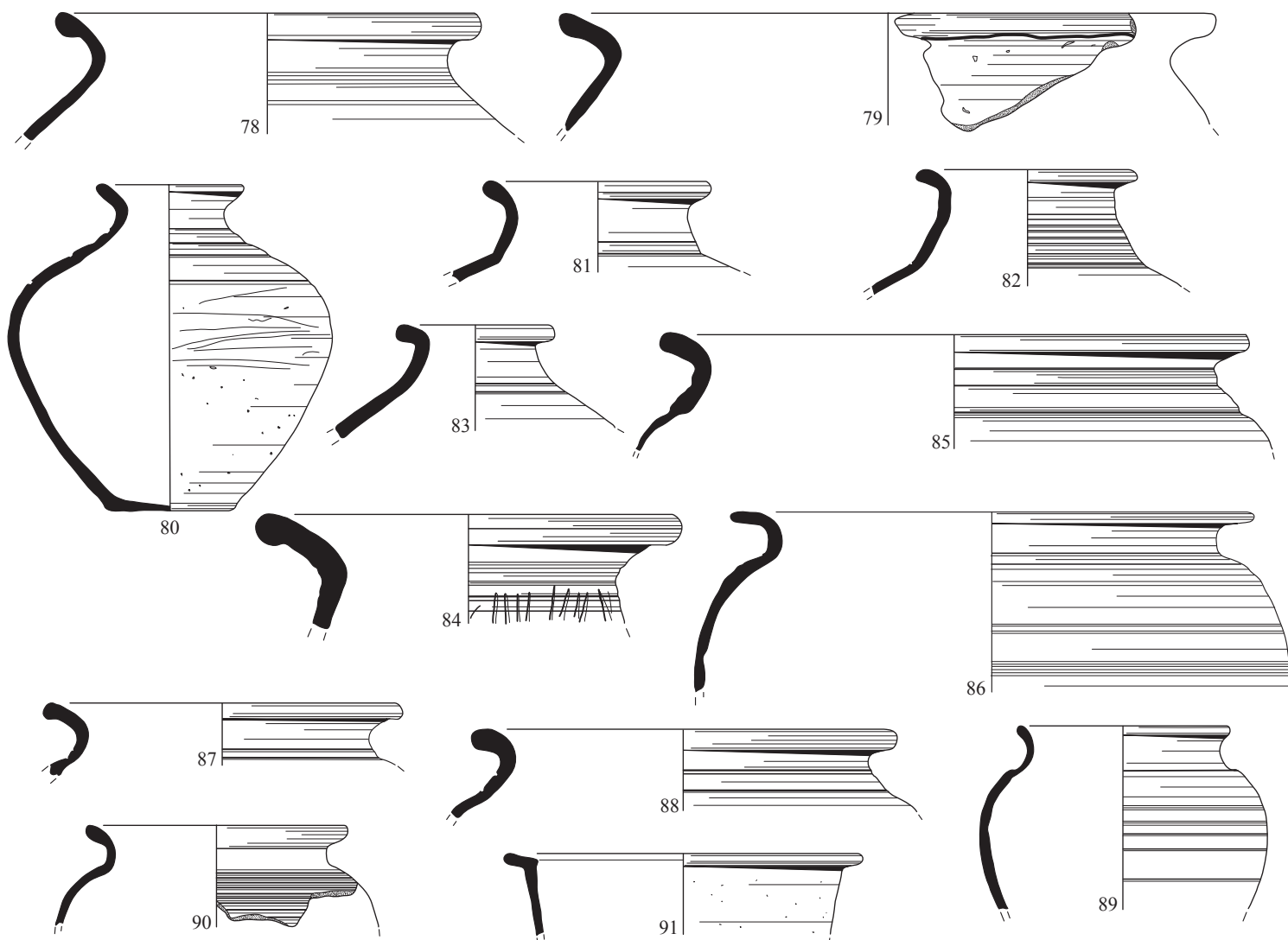


Wattisfield/ Waveney Valley reduced wares

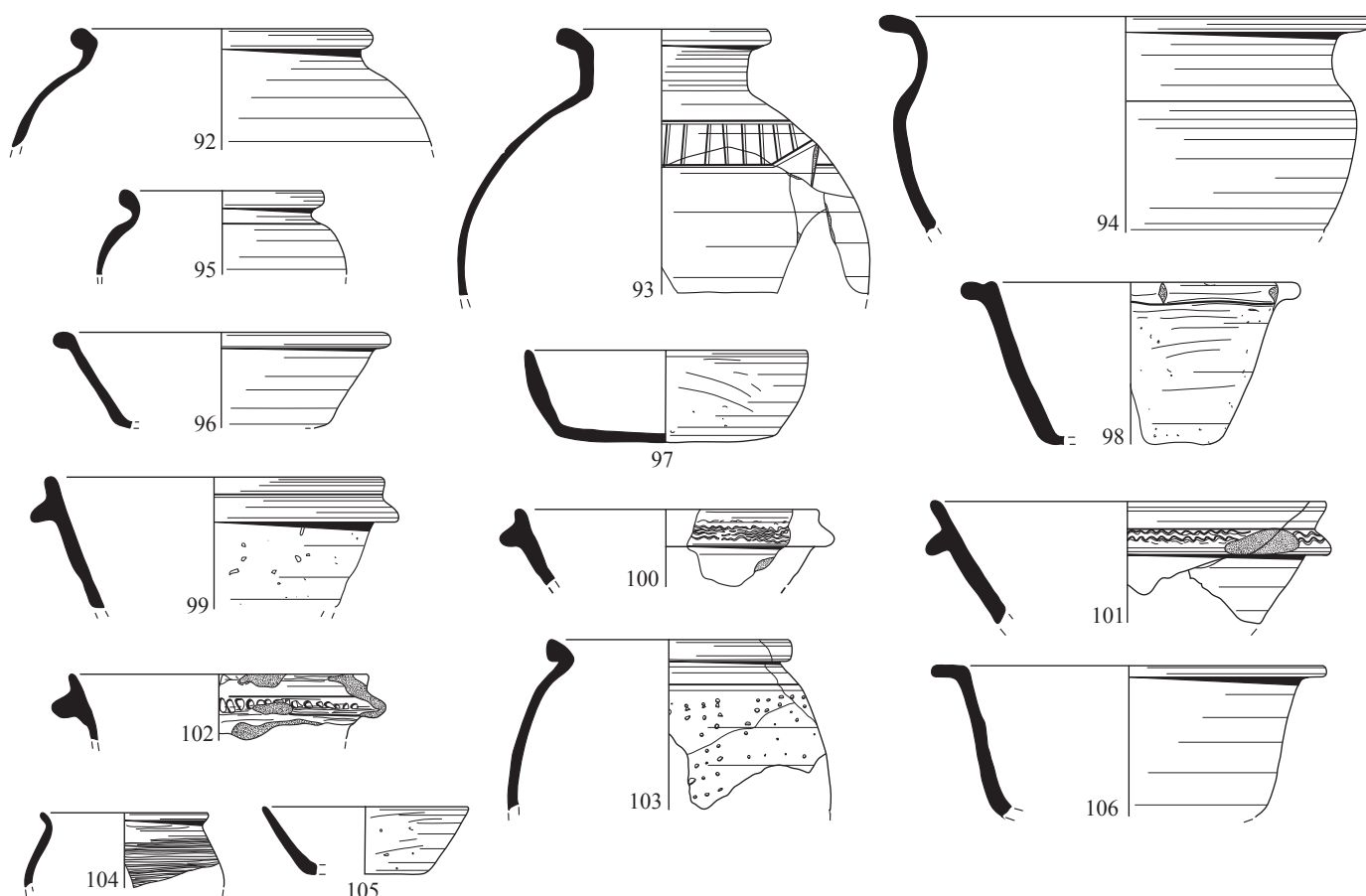




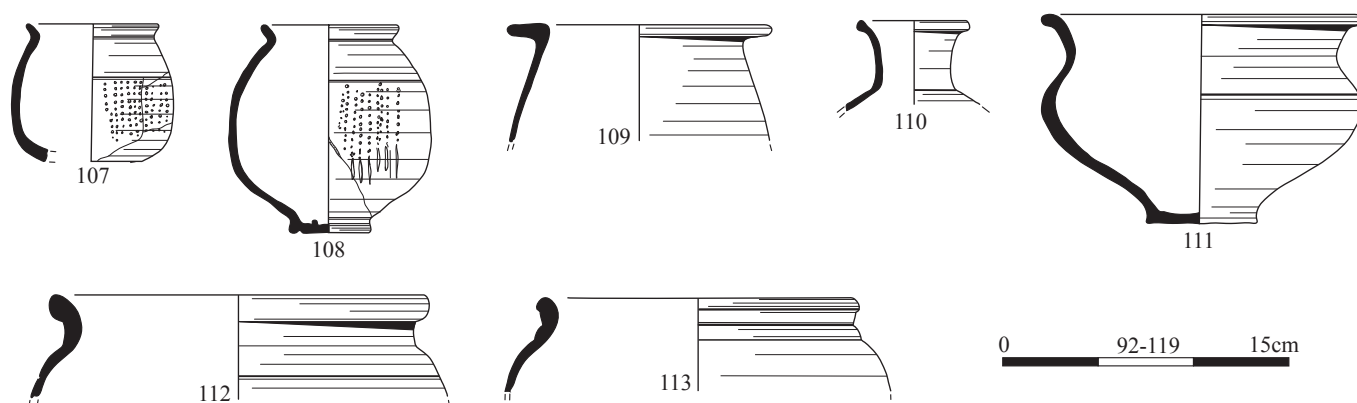
Horningsea reduced and oxidised wares



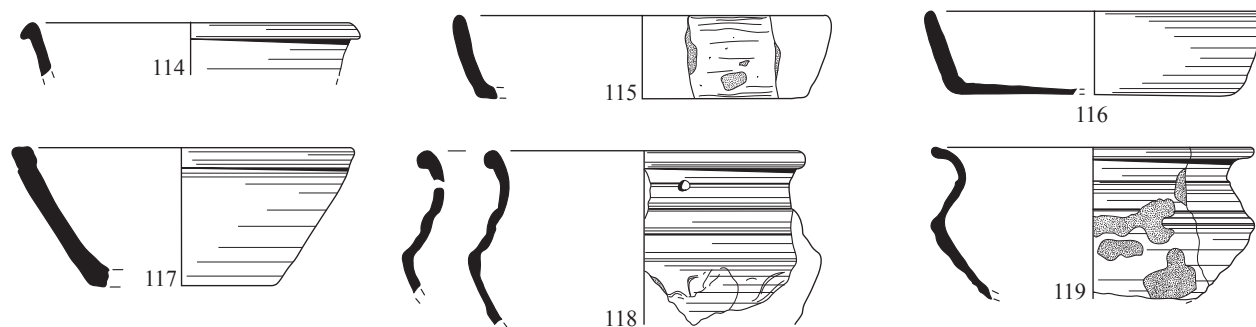
Generic locally-produced sandy grey wares

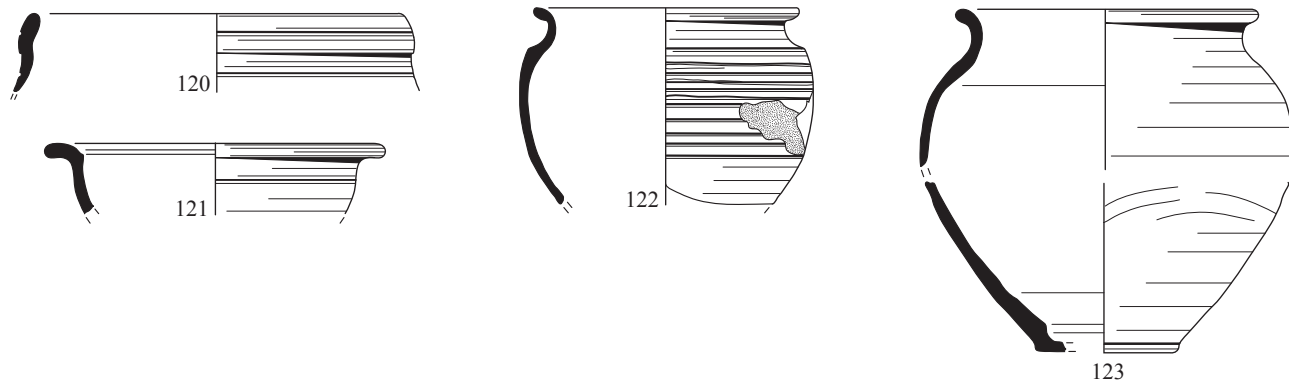


Distinct locally-produced sandy grey ware groups

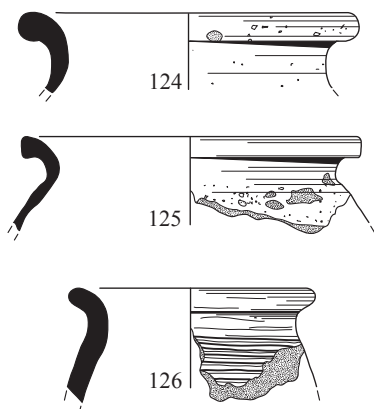


Black-surfaced reduced wares





Romano-British shell-tempered ware



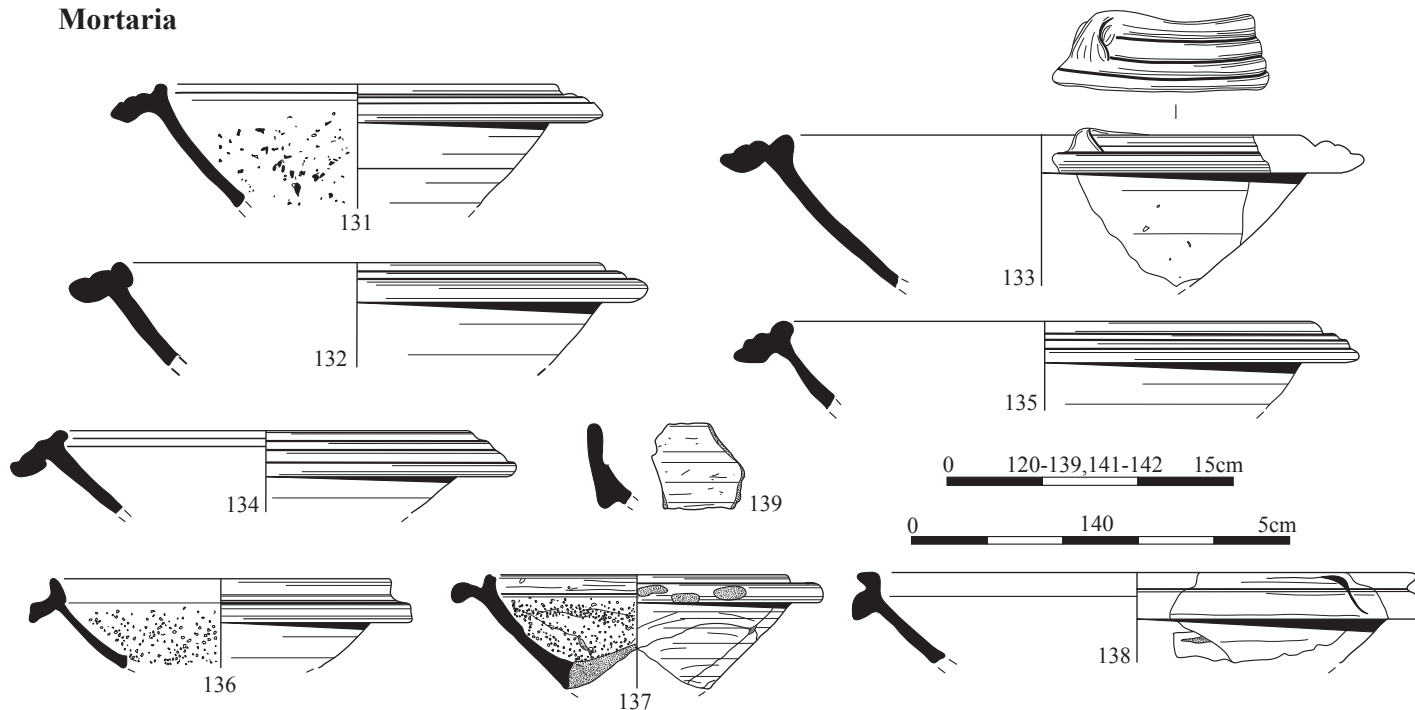
Nar Valley reduced ware



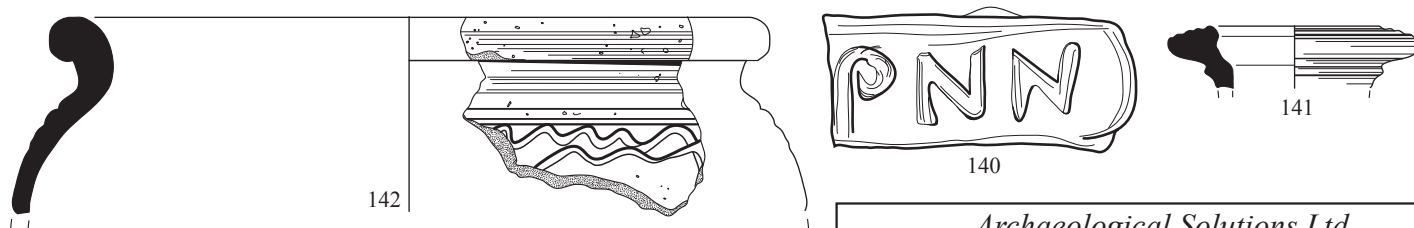
Other regional coarse wares



Mortaria

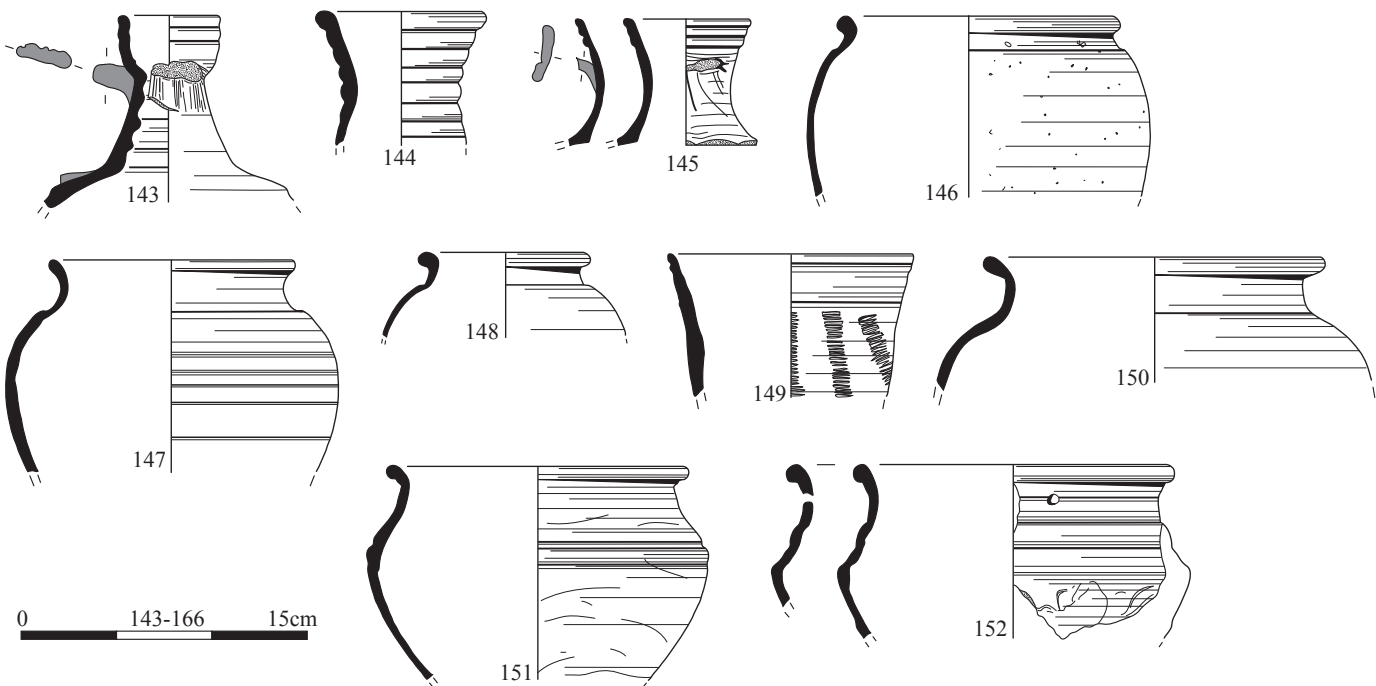


Amphorae and other storage jars

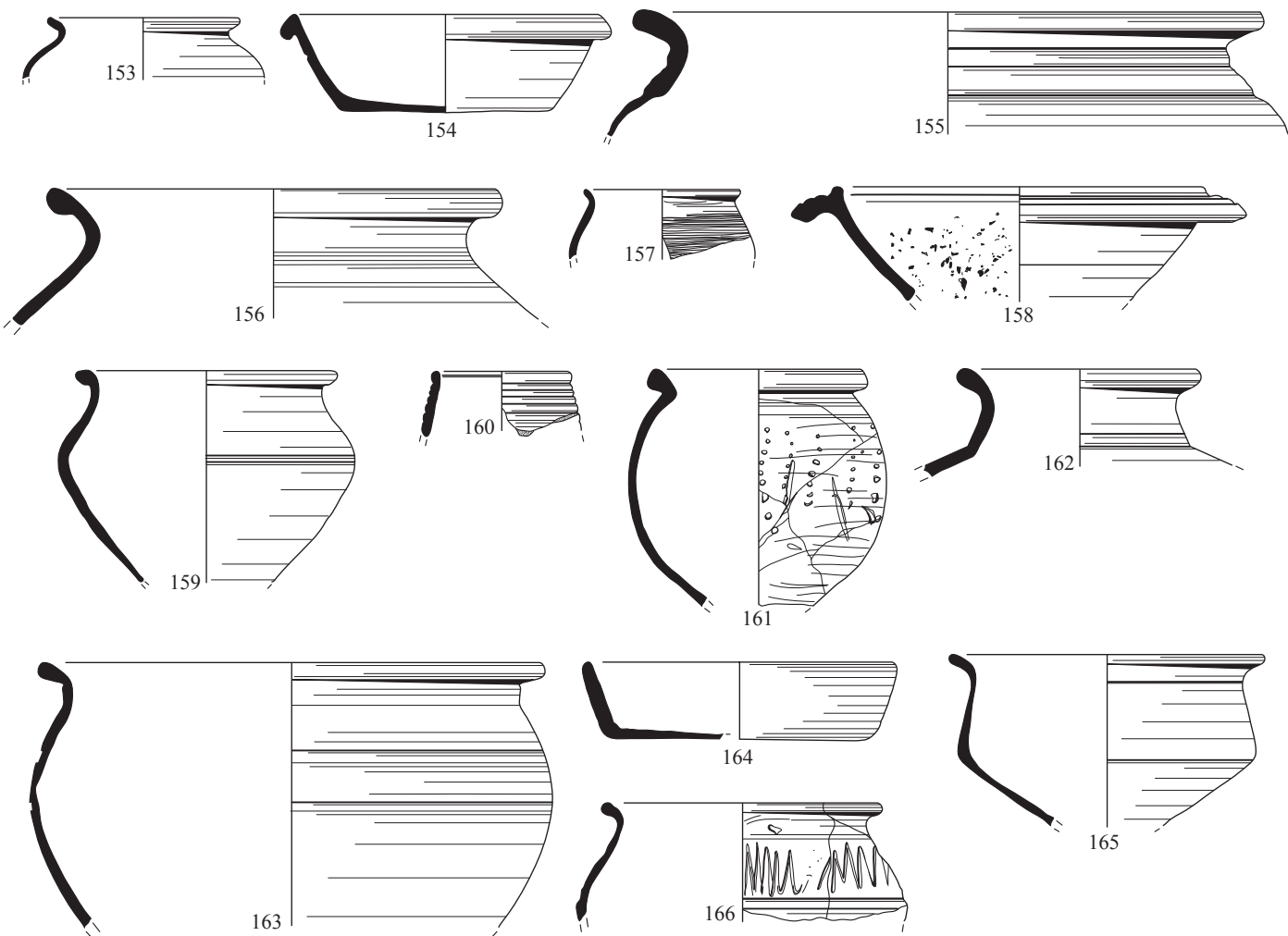


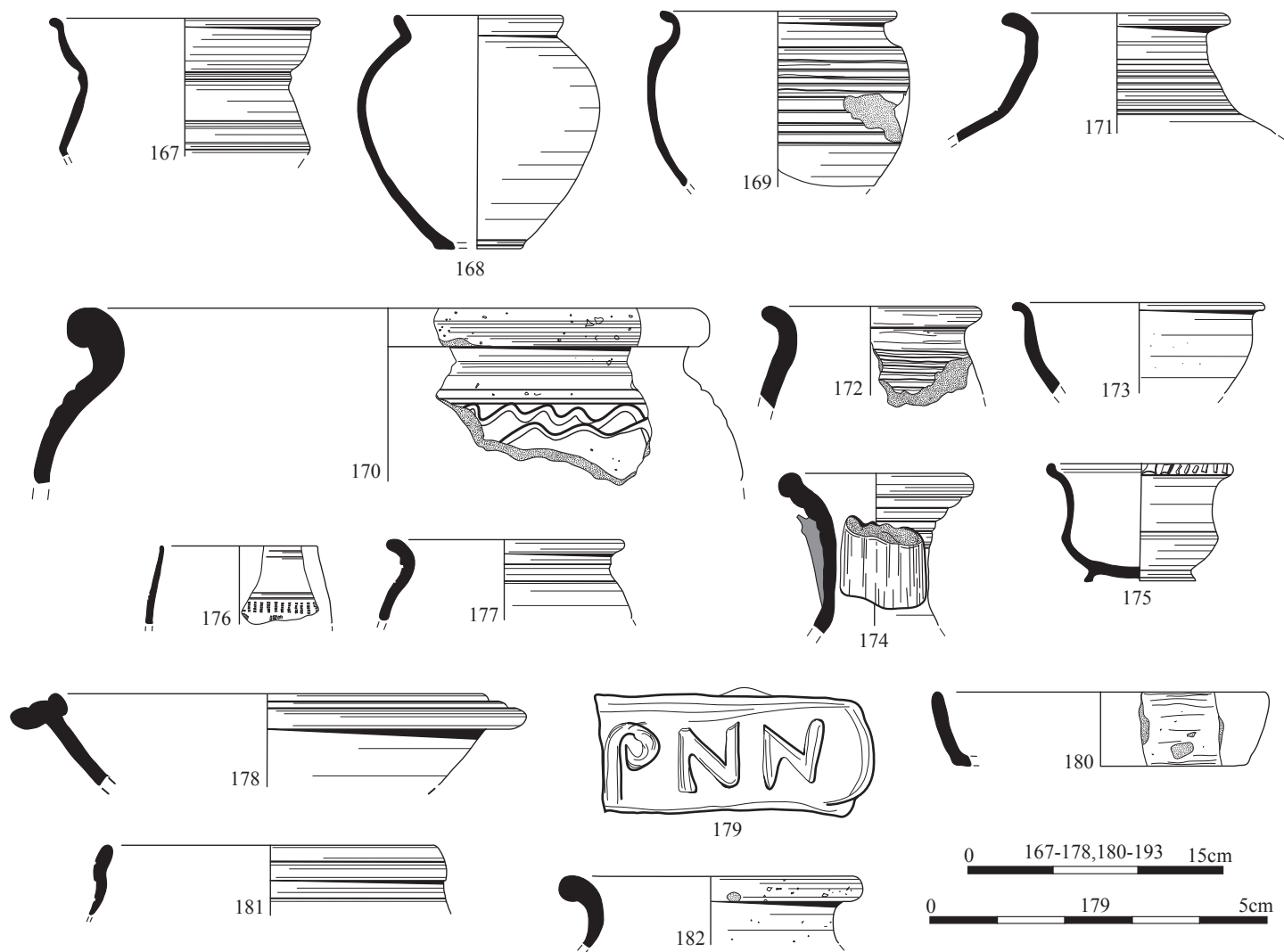
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Fig. 186 Pottery illustrations
 Scale 120-139,141-142 at 1:4 & 140 at 1:1 at A4

Roman sub-phase 1

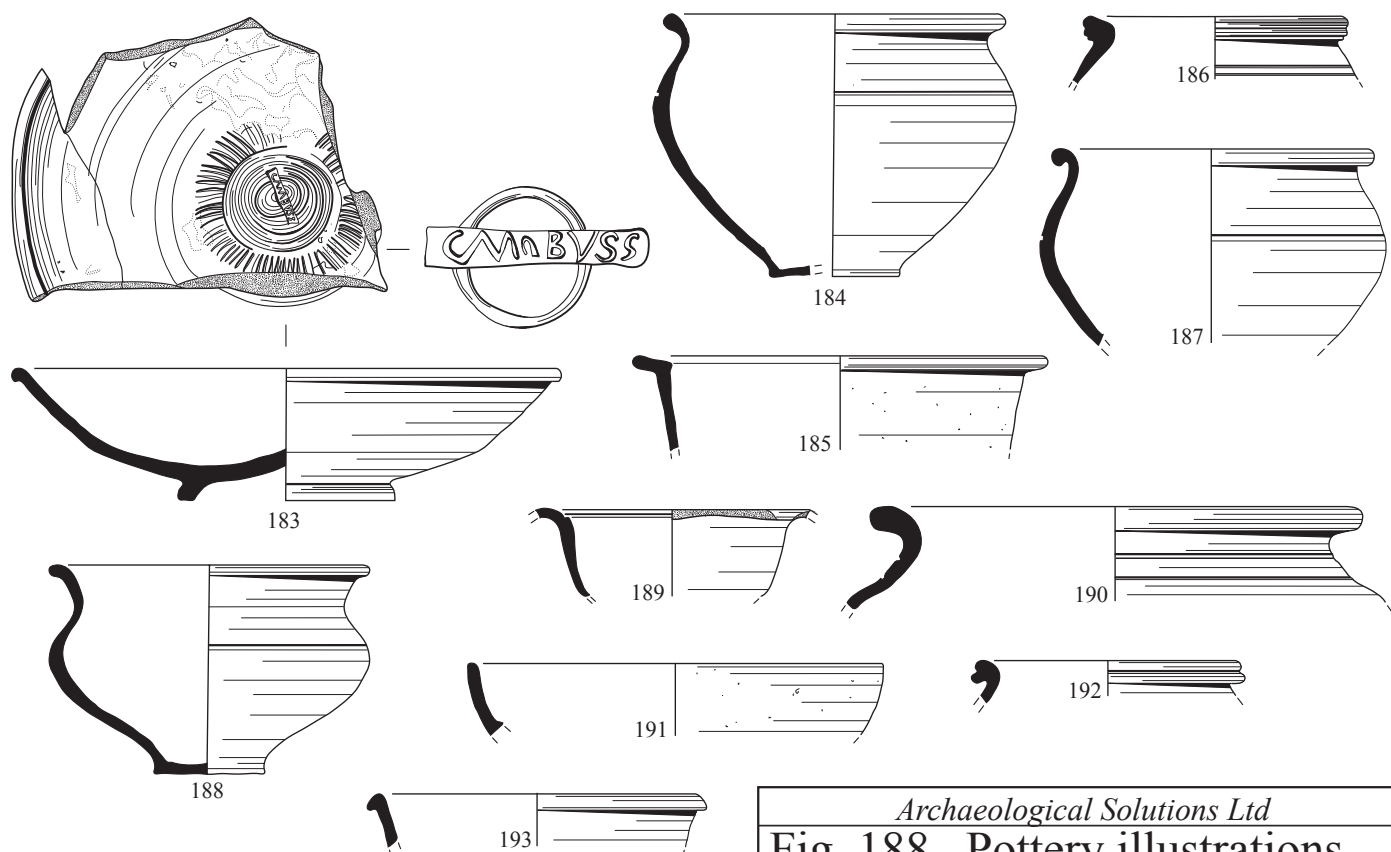


Roman sub-phase 2

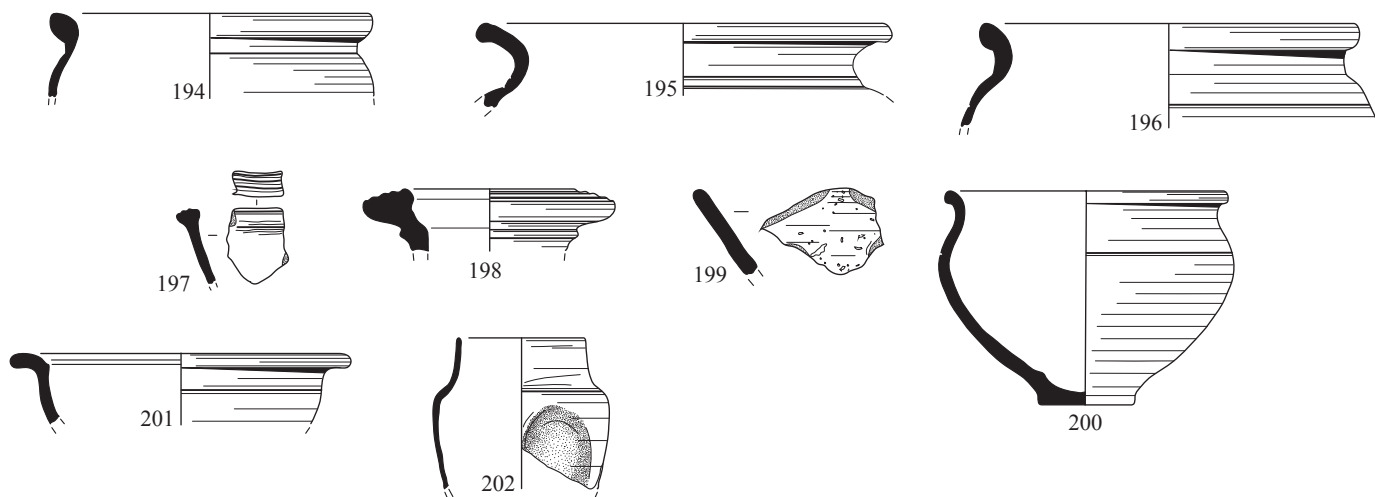




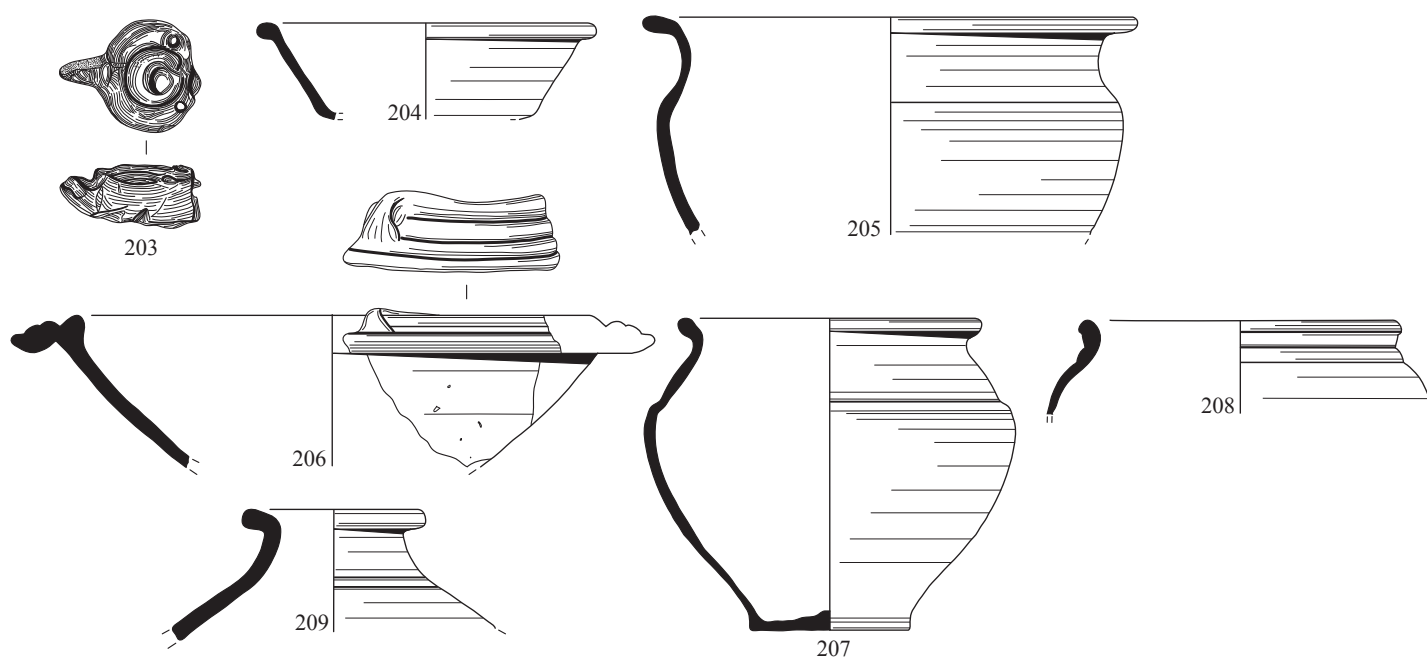
Roman sub-phase 3



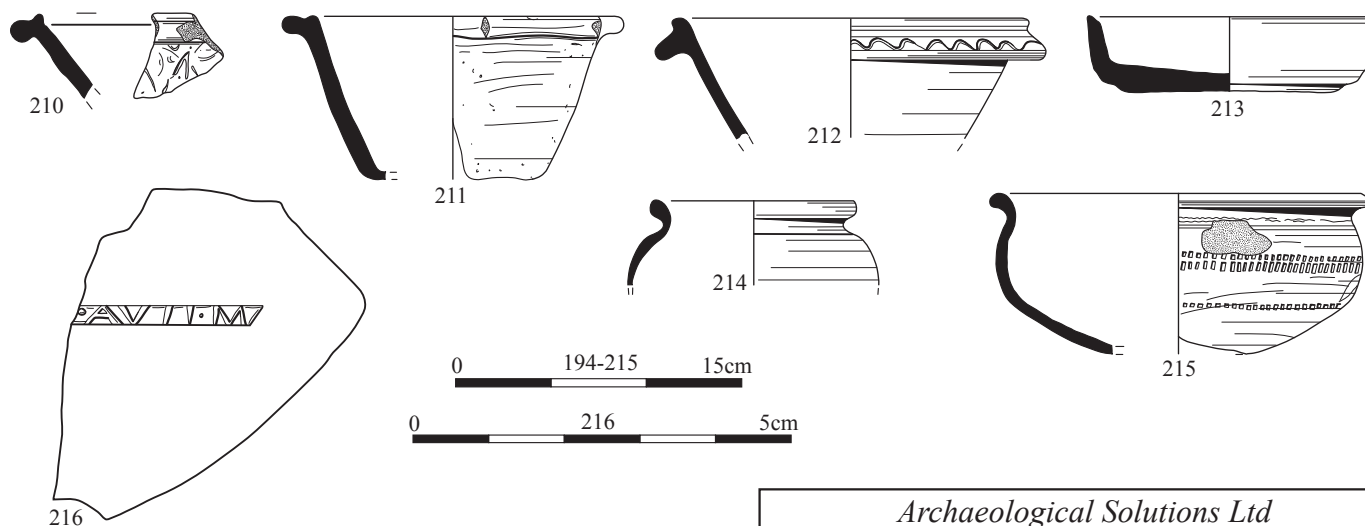
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Fig. 188 Pottery illustrations
 Scale 167-178, 180-193 at 1:4 & 179 at 1:1 at A4



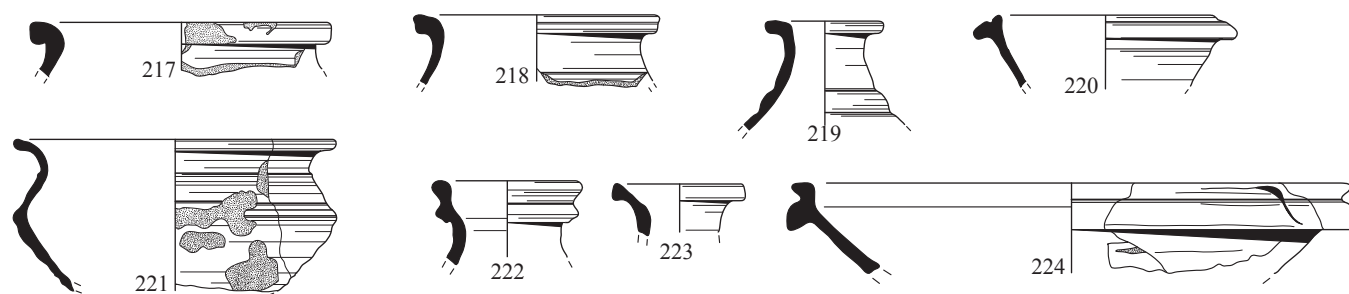
Roman sub-phase 4



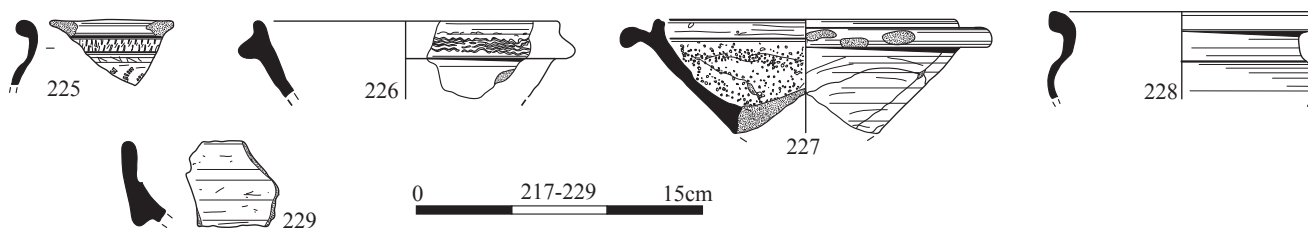
Roman sub-phase 5

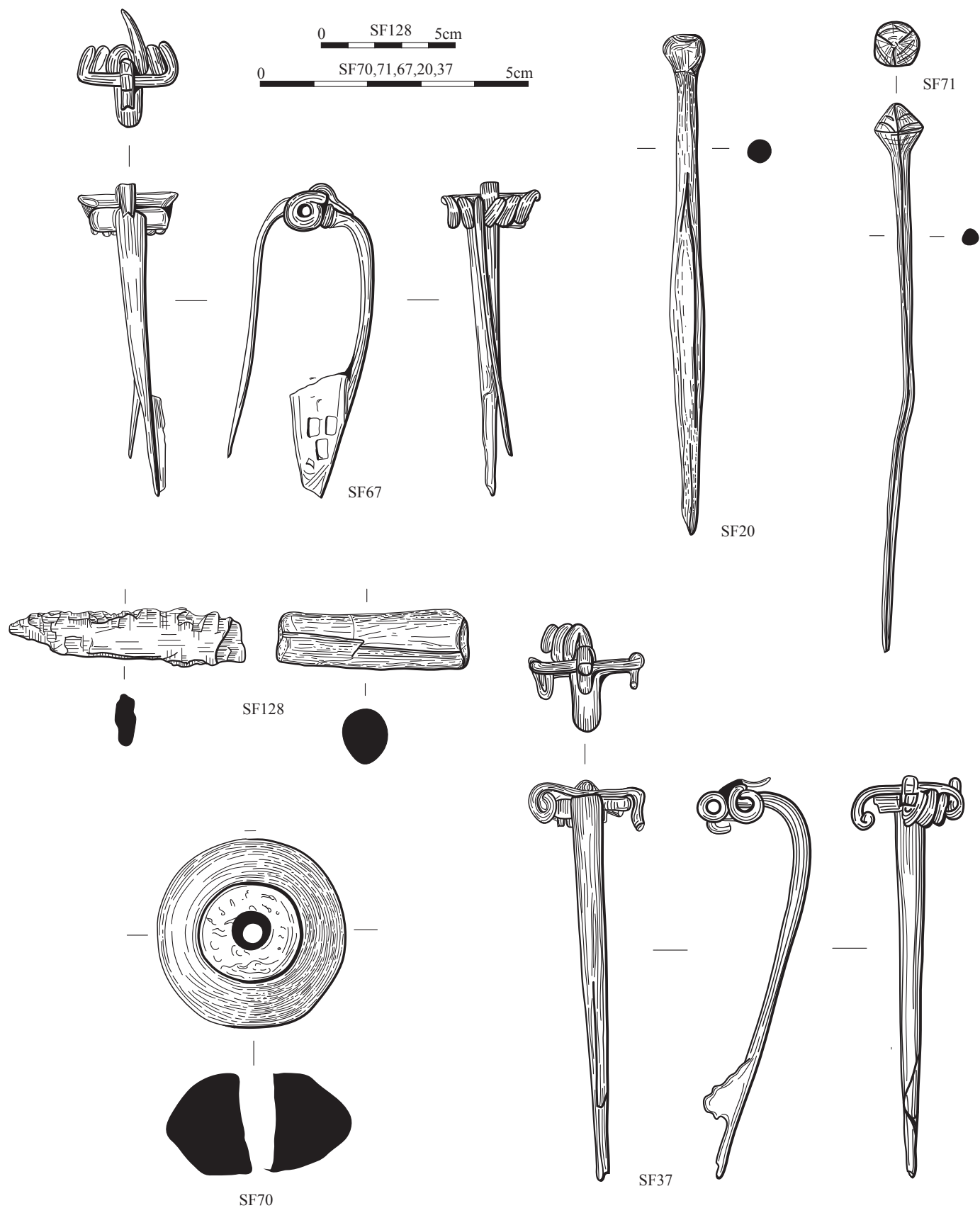


Roman sub-phase 6



Roman sub-phase 7





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Fig. 191 Small finds illustrations
 Scale 2:1 and 1:1 at A4