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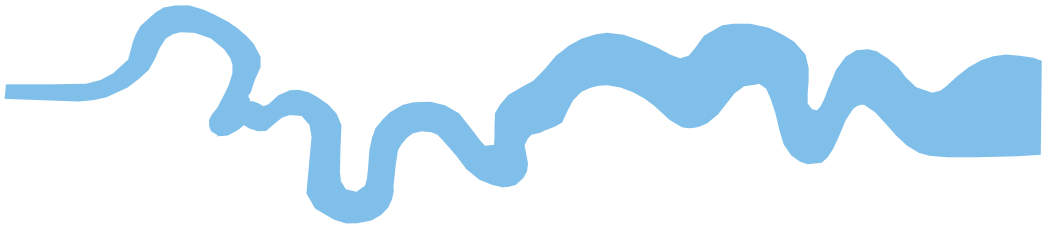

SOUTH

East Hall Lane Quarry, Wennington, Rainham, Essex

Archaeological Recording Action

Phase 3

by Odile Rouard

Site Code: EAS13/12

(TQ 5370 8140)

East Hall Lane Quarry, Wennington, Rainham, Essex (Phase 3)

An Archaeological Recording Action

for Brett Aggregates

by Odile Rouard

Thames Valley Archaeological Services Ltd

Site Code EAS 13/12

Summary

Site name: East Hall Lane Quarry, Wennington, Rainham, Essex (Phase 3)

Grid reference: TQ 5370 8140

Planning reference: P0271.14

Site activity: Recording Action

Date and duration of project: 12th March to 4th September 2018

Project manager: Sean Wallis

Site supervisors: Odile Rouard

Site code: EAS 13/12

Area of site: Phase 3 *c*. 5 ha

Summary of results: The archaeological fieldwork at East Hall Lane Quarry, Wennington, Rainham, Phase 3, revealed a medium density of archaeological features: ditches and gullies forming possible enclosures, the ring ditch of a Bronze Age round barrow, pits and cremation burials as well as two Grubenhäuser (Saxon Sunken featured buildings. Numerous postholes (some of them structural and identified as possible granaries) were recorded, with dates ranging from the Bronze Age to the post-medieval period. Many features also remain undated and have been tentatively allocated to one phase or another. A collection of Mesolithic flintwork is interpreted as representing a small occupation site of this period and one large blade is tentatively identified as being of upper Palaeolithic date.

Report edited/checked by:	Steve Ford✓ 28.16.19 Steve Preston✓28.16.19

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East Hall Lane Quarry, Wennington, Rainham, Essex (Phase 3)
An Archaeological Recording Action

by Odile Rouard
with contributions by Aidan Colyer, Ceri Falys, Steve Ford, Alice Lyons, Rosalind McKenna, Danielle Milbank and Richard Tabor

Report 13/12e

Introduction

An archaeological recording action was carried out by Thames Valley Archaeological Services at East Hall Lane Quarry, Wennington, Rainham, Essex (TQ 5370 8140) (Fig. 1). The work was commissioned by Mr Andrew Josephs, on behalf of Brett Aggregates.

Planning permission (P0271.14) had been gained from the London Borough of Havering to extract mineral from the site. The permission is subject to a standard planning condition (21) relating to archaeology and the historic environment, which requires the implementation of a programme of archaeological works in advance of extraction. This was in accordance with the *National Planning Policy Framework* (NPPF 2012) and the Borough Council's policies on archaeology and the historic environment. The archaeological work was to be phased over several years in line with the extraction programme.

As part of the initial phase of the programme of archaeological works, fieldwalking, geophysical survey and trial trenching (Ford 2013; Roseveare 2013; Platt 2013) took place and recorded various finds and features across the entire quarry area. As a consequence of the inevitable destruction of these archaeological deposits by mineral extraction, a recording action was called for to satisfy the condition. This report is on the third phase of the recording action.

Phase 1 investigated the south-west area of the site (McNicoll-Norbury 2018), while Phase 2 concentrated on the south-eastern field (Rouard 2018). Archaeological fieldwork was also undertaken on the site of the new haul road, located immediately to the south and east of Phase 3. Phase 3 represents the north-western area of the site (Figs 1 and 2).

The recording action in respect of Phase 3 took place according to a written scheme of investigation approved by the Historic England Archaeological Officer who advises the London Borough of Havering on archaeological matters. The fieldwork was undertaken by Virginia Fuentes-Mateos, Pierre Manisse, Odile Rouard, Sean Wallis and Jim Webster between 12th March and 4th September 2018, and the site code is EAS 13/12. The archive is presently held at TVAS South, Brighton, and will be deposited with the Museum of London in due course with accession code EAS13.

Location, Topography and Geology

The overall quarry site comprises an irregular shaped plot of land of approximately 20 ha located on land to the north-west of Wennington, and south-east of Rainham. The area investigated during this phase (Phase 3) consisted of a *c.* 5 ha plot of land, north of the Phase 2 area. The land was under arable use and lies to both sides of East Hall Lane. It is relatively level and lies at a height of *c*. 5m above Ordnance Datum except for the north-western margins where the ground slopes down slightly to the side of a stream valley. According to the British Geological Survey the underlying geology consists of London Clay Formation – Clay, Silt and Sand, with superficial deposits of Sand and Gravel (BGS 1998). The natural geology revealed during the Phase 3 recording action generally consisted of yellow sandy clay with some patches of gravel.

Archaeological background

The archaeological potential of the environs of the site had initially been highlighted in a cultural heritage assessment (Josephs 2014). In summary, there are a large number of finds and sites that have been recorded for the environs of the site. Various detailed archaeological investigations have taken place to the north of the site prior to earlier episodes of mineral extraction (e.g. Howell *et al.* 2011). These have revealed earlier prehistoric, Roman and medieval occupation and burial sites which can be considered as typical of the archaeologically rich terraces of the Lower Thames Valley.

The archaeological potential of the site itself was then demonstrated by fieldwalking (Ford 2013), geophysical survey (Roseveare 2013) and trial trenching (Platt 2013). The fieldwalking recorded a range of pottery finds of Iron Age, Roman, Saxon and Medieval dates, but not in sufficiently large numbers to identify the certain presence of occupation sites. However a cluster of struck flint probably of later Neolithic and Bronze Age date was sufficiently marked to indicate the likely presence of an occupation site which may be reflected in the presence of subsoil deposits. The geophysical survey confirmed the presence on the site of a ring ditch (levelled round barrow) also visible from the air, within the Phase 3 area, along with a number of linear features (field boundaries), some of which appear to respect the presence of the ring ditch. Further work in the form of machine dug trenching on the site revealed further evidence of prehistoric activity on the site as pits and linear features and confirmed the presence of the ring ditch (Platt 2013).

Phase 1 of the Recording Action found pits, postholes and linear features across that area of the site including one datable to the Late Bronze Age and another possibly to the Middle to Late Iron Age. The undated features were also thought likely to be of Later Bronze Age date and represent a low level of activity within the wider landscape.

Phase 2 revealed several gullies, pits and postholes dated from the Late Bronze Age to the Late Iron Age as well as the possible remains of a windmill dated to the late medieval or early post-medieval period.

From the previous evaluations, it was clear that the phase 3 area would contain a greater density of features than phase 1 and 2, and it was expected that, in addition to the new information for this area, this would also help to refine the understanding of those earlier results.

Objectives and methodology

The general objectives of the project were to excavate and record all archaeological deposits and features within the site; produce relative and absolute dating and phasing for deposits and features recorded on the site; establish the character of these deposits in an attempt to define functional areas on the site such as industrial, domestic, etc; produce information on the economy and local environment and compare and contrast this with the results of other excavations in the region.

The specific aims of the project were to address the following questions:

What is the nature and date of any landscape features (e.g. fields, boundary features, large enclosures) and what is their spatial organisation?

How did these landscape features relate to occupied areas?

When were the sites first occupied and when were they abandoned?

Are there further occupied areas within the site?

What is the palaeoenvironmental setting of the area?

What is the function of the ring ditch?

The Excavation

The excavation area comprised the Phase 3 mineral extraction site, which was approximately 5 ha in size after taking into account the bund areas. The area was stripped by a mechanical excavator fitted with a toothless ditching bucket, under constant archaeological supervision, down to the top of the underlying natural geology, which necessitated the removal of between 0.25m and 0.70m of topsoil (50) and subsoil (51) deposits.

A number of archaeological features were recorded within the excavation area (Figs 2 to 4), including ditches and gullies, forming possible enclosures; pits and postholes, some of them structural and identified as possible granaries; a ring ditch, possibly a Bronze Age barrow surrounded by a scatter of five cremation burials (of which only one was urned); as well as two Saxon Grubenhäuser. These were sampled by hand, and some of them had already been identified during the evaluation.

Four main phases have been recorded, and the occupation of the site seems to begin in the Late Bronze Age / Early Iron Age period. After a long hiatus some very limited activity is observed belonging to the Late Iron Age. Although a small quantity of late Roman pottery was recovered, almost all of this was in Saxon features. One pit might be of this date but it is probably just as likely that the pottery in it was also residual. The next phase corresponds to the Saxon period with the Grubenhäuser and granaries investigated in the south-eastern part of the excavation area. A major field system dates from the medieval period and several post-medieval features were recorded.

Later Bronze Age / Early Iron Age

The major phase of activity on this part of the site dates to this phase.

Ring Ditch 1024 (Figs 5, 6 and 7; Pls 1–4)

A ring ditch was identified approximately in the centre of the site: it was first recorded by from aerial photographs, and confirmed by the geophysical survey and was then sampled by hand during the evaluation. It was excavated in its entirety during the latest phase of work. Thirteen slots were excavated through it and recorded in section before removal of all the remaining baulks to mean it was completely investigated. This not-quite-circular ditch had a maximum external diameter of roughly 12m, 8.5m internally, its width varying between 1.25m and 1.65m and a depth varying between 0.53m and 0.84m. It contained two fills in most slots, increasing to three consistently around the south-western part of the circuit. The upper (third) fill mostly consisted of re-deposited natural. Its secondary fill consisted of mid-orange brown sandy clay and its primary fill consisted of a mid-grey brown sandy clay with frequent flint nodules and gravel and was very compact. This ring ditch is believed to represent a Bronze Age barrow. It contained pottery, as well as struck flint and fire-cracked flint and was dated to the Later Bronze Age. There was a central pit that was thought to be associated with the ring ditch (826) (Pl. 5): it also contained two fills, quite similar in nature to the fills of the ring ditch and yielded some pottery sherds, some struck flint and some fire-cracked flint also dated to the Later Bronze Age. There was no trace of a burial, but bone survival on the site was very poor. It is unsure what the function of this pit was, and if it was associated with the ring ditch at all.

Most round barrows are of Early Bronze Age date, with a proportion being re-sued in the Middle Bronze Age. Middle Bronze Age barrows are less frequent and usually smaller. Here, there was no material suitable for radiocarbon dating and the associated pottery of later Bronze Age date is likely to date subsequent activity on the site rather than for the initial construction.

?Granaries (Figs 8 and 9; Pl. 6)

Located 37.8m south-east of the ring ditch was structure (1010) formed of 9 post holes in a very regular 3 x 3 grid in a square with each side measuring about 3.80m, which can plausibly be interpreted as a granary. The posts were evenly spaced and had similar shapes and sizes with diameters varying between 0.40m and 0.45m, and a depth varying between 0.18m and 0.20m. They were all filled with a loose dark grey brown silty clay that contained flint and gravel inclusions. Three of the postholes contained LBA/EIA pottery amounting to ten sherds in total. Such structures appear in various periods, but Bronze Age examples this regular would be rare. Although often seen as granaries, other functions can be suggested, such as excarnation platforms. The proximity of the ring ditch, and absence of obvious settlement evidence, might suggest this is more likely than grain storage in such isolation, but examples of the latter are known (e.g., Roundhouse Farm, Wiltshire: Cass *et al.* 2015) Nonetheless this quantity of pottery and absence of any later finds suggest that the pottery can be taken at face value as dating evidence. Two smaller but equally regular structures nearby (1011, 1012) contained no finds but may also be of the same function and date.

Another possible granary, 1012, immediately north of 1010, consisted of five postholes but it is a possibility that a sixth simply did not survive in the archaeological record. They measured between 0.30m and 0.40m and had a depth varying between 0.10m and 0.18m. They did not contain any finds but can be tentatively phased based on proximity to 1010 and 1011, and seemed to share the same orientation as well.

Just north-east of 1012, possible granary 1011 consisted of six postholes that were also evenly spaced. They had diameters varying between 0.36m and 0.40m and a depth varying between 0.15m and 0.18m. They had a fill of mid-orange brown silty clay with flint and gravel inclusions. None of them yielded any finds or dating material. However, they seemed to be following the same alignment / angle as granary 1010 and could therefore belong to the same period.

Another three postholes were recorded in the same area and they could belong to a structure that has now partly disappeared, or perhaps a fence. They were immediately south-east and 1012 and shared its alignment: it is just possible they should be considered part of group 1012. The postholes measured between 0.37m and 0.40m in diameter and had a depth of between 0.16m and 0.18m. They did not contain any finds or dating evidence but again are phased on proximity and orientation.

Cremation burials (Fig. 10; Pls 7 and 8)

One urned cremation burial and three un-urned examples all appear to belong in this phase, although the un-urned examples are less securely dated.

Urned cremation burial 605 was located in the south-western part of the site, between gully 1030 and palaeochannel 1042. This was the only urned cremation recorded on site and was placed within a pit that had a

diameter of 0.53m and a depth of 0.39m. Two fills were visible in the pit outside of the urn: 660, the secondary fill, was a soft mid-grey silty sand with occasional pebble inclusions; it was 0.15m thick and was sampled as it contained cremated bone fragments. Primary fill 668 was a soft, dark, grey black silty sand that also contained cremated bone fragments. The urn was then removed and excavated in spits in laboratory conditions. The urn itself was whole and well-preserved: it was dated to the Late Bronze Age / Early Iron Age period. The majority of the cremated bone fragments were found to belong to an adult, possibly female, but one skull fragment was from an infant. It was not clear if the latter had died before or after birth. Cremation from the exterior fill (660) was radiocarbon dated to 1299–1122 cal BC (UBA 40374).

Cremation burial 540 was located between ditches 1028 and 1041, almost on the line of ditch 1028. The cremation pit was oval in shape and measured 0.50m by 0.40m, with a maximum depth of 0.10m. It was excavated in two spits. Although the cremation was unurned, it did contain a few pottery sherds dated to the Late Bronze Age / Early Iron Age period. The cremated bone was found to belong to an older adult male, possibly aged 46+.

Unurned cremation burials 738 and 739 were located roughly 30m to the south of ring ditch 1024, just to the west of palaeochannel 1042 and close to a small cluster of postholes which may have formed a structure relate to the burials. Cremation burial 738 was placed in a pit that had a diameter of 0.40m and a depth of 0.22m. It was filled with a firm, dark grey brown sandy clay that contained occasional charcoal flecks and just 89g of cremated bone in fragments too small to be identified. This cremation burial has been dated speculatively to the Late Bronze Age period, although it did not contain any datable material.

Cremation burial 1112 was located in the central northern part of the excavated area, on the very edge of excavation. It was contained within a pit of 0.40m in diameter and 0.06m in depth and was also unurned. It consisted of a fill of firm, dark grey sandy-clay with a moderate amount of charcoal flecks inclusions and although no finds or dating evidence were retrieved, it was sampled to allow cremated bone analysis.

What was initially thought to be another cremation burial, 739, lay very close to 738. It was also unurned and was placed in a pit that measured 0.45m in diameter and 0.25m in depth. It contained a fill of mid-grey brown silty sand with occasional pebble inclusions. However, it contained no cremated bone fragments but did produce six iron nails.

Linear features (Figs 3 and 4)

Three of four parallel ditches or gullies towards the western end of the area contained pottery of this phase, and the fourth, further west, is possibly also associated although containing no finds. However, this is rather tentative, as another ditch (1028) on the same alignment and also containing some prehistoric finds, was medieval or possibly post-medieval.

Gully 1030 and ditch 1041 appeared to form a closely marched pair, extending along the southern 100m of (later) ditch 1028 just to the east of the latter. Again both were orientated south-east / north-west. Gully 1030 had a width varying between 0.48m and 0.70m and a depth between 0.11m and 0.20m (Fig. 13). It however petered out to the north and its relationship with Ditch 1029 remains uncertain. It had a fill of mid-orange brown clay-sand that contained struck flint and fire-cracked flint but otherwise remains undated.

Ditch 1041 was on the same alignment as gully 1030, parallel to it (and also parallel to medieval ditch 1028 and located just 4 to 5m to the east of it). It had a width varying between 0.64m and 1.35m and a depth of between 0.20m and 0.38m (Fig. 18; Pl. 9). Pottery from two slots and flints from four suggest a date in this phase, although there were also tiny scraps of medieval pottery in slot 606, presumed intrusive. These two features are very similar in nature and have both been dated to this phase: it could be that they represent a droveway leading to an enclosure.

Gully 1027 was likewise orientated north-west / south-east, it was located in the south-western part of the site and was fairly short, terminating after about 18m. Its width varied between 0.58m and 0.80m and it had a very shallow depth of about 0.09m. It contained a fill of mid-grey brown silty sand that yielded pottery sherds from slot 600, fired clay and fire-cracked flint.

At the north-eastern end of the site Ditch 1022 was aligned south-west / north-east and was parallel to Ditch 1019 that lay immediately to the north. It had a width varying between 0.60m and 0.96m, and a depth of between 0.13m and 0.40m (Fig. 11). Its fill of mid-grey brown sandy clay contained pottery sherds as well as struck flint and fire-cracked flint. Pottery from slot 909 in this ditch was dated to the Late Bronze Age/Early Iron Age period, although it may be tempting to phase it in the medieval period since it parallels the eastern extent of ditch 1023.

Ditch 1025 and ditch 1039 (Fig. 12; Pl. 10) are almost certainly one and the same: they are on the same roughly south-east / north-west alignment and both had similar fills of mid- to dark grey brown sandy clay that contained the same types of finds: pottery, fire-cracked flint, some possible iron fragments and struck flint. The alignment is at odds with almost all the other linear features on the site, and the ditch terminates just north of ring ditch 1024. Although only one slot (809) produced pottery, this had five sherds of LBA/EIA material, and a couple of slots also contained struck flint, so it seems fair to place this ditch line in this period. Ditch 1039 seemed to be obliterated by ditches 1023, 1034 and 1036 and must thus be earlier than these, although any relationship was difficult to ascertain in this area because of the high concentration numerous intercutting ditches. Since most of the ditches in this area were also shallow, it was not possible to establish a stratigraphic relationship between them. Based purely on alignment, ditch 1033 is perhaps related to this.

Ditch 1033 was a short ditch aligned south-west / north-east. It was roughly 15m long and both termini were investigated. It had a width of between 0.67m and 0.90m and a depth of between 0.18m and 0.25m (Fig. 13). Its fill

of mid-grey brown silty sand yielded some animal bone fragments and fire-cracked flint. This feature is in itself undated but may be related to ditch 1025 and, indirectly, the ring ditch.

Following this tenuous linkage, gully 1032 may also be part of this arrangement. It seemed to branch off from Ditch 1041, following a south / north alignment, heading (vaguely) towards ditch 1033 but petering out as it headed north. It had a width of roughly 0.75m and was very shallow, with a maximum depth of 0.20m (Fig. 13). Its only find was a single sherd of medieval pottery from slot 620, were it was cut by medieval ditch 1029, and it is feared this may be intrusive. Strengthening the case for dismissing this sherd, three pits cutting gully 1032 contained consistent prehistoric material which looks unlikely all to be residual. If this is the case (and the chain of argument is now rather long) then this series of ditches might be defining a large area of land around ring ditch 1024.

Discrete features (Fig. 10; Pls 4 and 6)

Located just west of trackway 1030/1041 was a small cluster of pits and postholes, five of which (511, 514, 515, 519, 522) contained pottery of this period. It would be tempting to assign all the others (without pottery) to this phase, but for the fact that two pits (530, 535) close to the line of ditch 1041 contained Saxon pottery.

Pit 511 measured 4.30m by 2.10m and had a depth of 1.05m (Fig. 15; Pl. 11). It had steep sloping sides and contained several fills as well as evidence of burning in situ. A large amount of pottery was recovered from its different fills as well as a fair amount of fired clay and fire-cracked flint. Some of the fired clay was from multiple triangular loomweights. It is not certain what the function of this pit was. The pottery included over 200 sherds of LBA/EIA material spread throughout the fills, and two later Iron Age, from the top fill, the latter probably intrusive.

Postholes 513 and 514 were close to each other and may belong to the same phase / structure. They both had a diameter of roughly 0.35m and a depth of 0.12m. They contained fills of dark grey brown silty sand and 513 yielded some fired clay while some pottery was present in 514.

Pit 515 had a diameter of 0.72m and a depth of 0.21m (Pl. 13). Its fill of mid-grey brown silty sand yielded pottery sherds as well as struck flint. Pit 517 measured 1.95m by 0.90m and had a recorded depth of 0.20m. It had a fill of dark brown silty sand and quite an irregular base, suggesting this may have been a natural feature rather than an anthropogenic one. Some fire-cracked flint was recovered from its fill but there was no dating evidence. It is included here simply on proximity to the other features in this cluster.

Pit 519 measured 2m in diameter and reached a depth of 0.74m, and was truncated by late Roman pit 520. Pit 519 contained one fill of mid-grey brown silty sand: it yielded a fair amount of pottery, fired clay, struck flint and fire-cracked flint and was sampled. Fired clay, struck flint, and fire-cracked flint from this pit may have found its way into the later pit 520, as the latter's pottery was certainly Roman.

Pit 522 was located immediately to the north of Ditch 1027 and measured 3m by 1.40m. It is thought to be a tree hole as its shape and base are irregular, with a maximum depth of 0.46m. Its fill of mid-brown sandy silt however yielded several pottery sherds as well as struck and fire-cracked flint.

Other features of this period were more scattered across the excavated area.

Pit 613 was located next to cremation 605. It had a diameter of 1.80m and a maximum depth of 0.24m (Pl. 12). Its fill consisted of dark grey brown silty sand and was sampled. It contained pottery, fired clay, a possible loom weight and fire-cracked flint and may be associated with cremation 605 although this remains a suggestion.

Three intercutting pits cut into gully 1032: Pit 628 (same as 623) had a diameter that could not be measured but its depth reached a maximum of 0.34m and it contained pottery as well as fire-cracked flint. Pit 629 had a depth of 0.18m; it also yielded some pottery sherds. Pit 630 (same as 621) was 0.25m deep and only contained pieces of struck flint. The relationships between these three pits was very tenuous and could not be determined. They might have been contemporary, even though their function remains unknown.

Posthole 733 was an isolated feature; it had a diameter of 0.46m and a depth of 0.22m. It had a single fill of mid-grey brown sandy clay with frequent gravel and charcoal flecks inclusions that yielded a single sherd of LBA/EIA pottery as well as some fired clay fragments.

Pit 829 was irregular in shape and measured 2.50m by 0.86m, with a relatively shallow depth of 0.17m. It contained a fill of mid-orange grey sandy clay with occasional flint inclusions that yielded a single sherd of pottery as well as struck flint and fire-cracked flint. This feature may very well be geological or natural rather than archaeological however and it has only been tentatively dated to the Late Bronze Age/Early Iron Age period.

Intercutting pits 839 and 840 were located in the south-eastern corner of the site, together with pit 842. Pit 839 had an estimated diameter of 0.70m and a very shallow depth of 0.12m. It had a fill of mid-grey brown silty sand with no finds. Pit 840 was very similar in size and nature, with an estimated diameter of 0.75m and a depth of 0.10m. Its fill yielded a single sherd of pottery dated to the Late Bronze Age/Early Iron Age. The relationship between the two pits could not be determined, although they are likely to be contemporary. Their function also remains uncertain.

Possible pit 842 had an irregular shape and measured 1.90m by 0.90m, with a depth of 0.12m. It also contained a fill of mid-grey brown silty sand that produced two pottery sherds dated to the LBA/EIA as well as one piece of struck flint and some fire-cracked flint. It may be associated with pits 839 and 840 although its irregular shape suggests it may in fact be a tree hole or geological feature.

Pit 908 was located close to the northern edge of excavation and appeared to cut ditch 1019. It had a diameter of roughly 1.25m and a maximum depth of 0.19m. Its fill of mottled mid-grey silty sand yielded a struck flint as well as a fair quantity of fire-cracked flint. Its phasing is tentative.

Pits 915 and 916 are located in the south-eastern corner of the site, roughly 17m to the north-west of SFB 1014. Pit 915 had a diameter of 0.80m and a depth of 0.18m. It contained a fill of mid-grey brown silty clay with very light evidence of in-situ burning and was therefore sampled, producing tiny scraps of unidentifiable animal bone, but no datable material. It may however be associated with pit 916, in view of their close proximity. Pit 916 was oval in shape and measured 1.55m by 1.18m, with a shallow depth of 0.11m. Its fill consisted of mid-grey brown silty clay and yielded three LBA/EIA pottery sherds.

Late Iron Age

A very small quantity of pottery from this part of the site (11 sherds, all small) can be dated to the late Iron Age. It came from six features, with no feature containing more than 3 sherds, but is clearly residual in two (pit 520, Late Roman and quarry 609, medieval or post-medieval) and intrusive in two others (pits 511 and 722). That leaves only two candidates for potential features of this period and both must be regarded as suspect.

Pit 728 was located immediately south of ditch 1035. It had an irregular shape and measured 2.80m by 1m, with a very shallow depth of 0.10m. It contained a fill of dark grey silty sand that yielded pieces of fired clay as well as fragments of animal bone, struck flint and fire-cracked flint and a single sherd of pottery.

Postholes 735, 736 and 737 formed a small cluster to the west of palaeochannel 1042, together with cremations 738 and 739. Posthole 735 had a diameter of 0.42m and a depth of 0.16m. It was filled with a dark grey brown sandy clay that produced no dating evidence. Posthole 736 had a diameter of 0.30m and a maximum depth of 0.18m. It had a fill of mid-grey brown sandy clay that contained a few pottery sherds dated to the Late Iron Age period, as well as some struck flint and a possible loom weight. Posthole 737 measured 0.43m in diameter, with a depth of 0.15m. Its fill consisted of dark grey brown sandy clay that produced one possible struck flint. Although the function of these postholes cannot be determined with any certainty, they may have had a structural role or may have been associated with the cremations they lay next to. They have been dated to the Late Iron Age period because of their proximity to each other, although they may in fact belong to different phases.

Roman

Again, a small quantity (15 sherds) of middle to late Roman pottery was recovered, mostly from Saxon midden 991 and SFB 1014, but one pit (520) at the western side of the site close to ditch 1028, contained no later finds and may be of this period. Pit 520 had a diameter of 1.50m and a depth of 0.46m and was cut into pit 519 (Pl. 13). Pit 520 contained two fills: 574 (the secondary fill) was a dark grey brown silty sand that was 0.12m thick that yielded

pottery, fired clay, struck flint, fire-cracked flint, but it especially contained a small log of burnt wood. Fill 575 (the primary fill) was a mid-grey brown silty sand about 0.33m thick that also yielded pottery sherds.

Anglo-Saxon

Grubenhäus (Figs 4, 14; Pls 14, 15)

A sunken featured building (SFB, or Grubenhaus), 1014, was identified in the south-eastern corner of the site. It consisted of a central hollow which measured 4.40m by 3.30m and two postholes, 914 and 1111, one at each end. It had a maximum depth of 0.36m, with a single uniform fill consisting of light grey silty clay with moderate pebbles inclusions and was first dug in quarters. It yielded many finds, including pottery sherds, spindle whorls, bone, some metal objects (a possible stylus, an iron blade and some nails) as well as some worked flint, probably residual.

Posthole 914 was located on the western side of SFB 1014; It had an average diameter of 0.24m and a depth of 0.39m, with a sterile fill of light to mid-grey brown sandy silt. Posthole 1111 was located on the eastern side. It had a diameter of 0.33m and a depth of 0.50m, that contained a fill of mid-grey brown sandy silt that produced pottery sherds as well as shell. A radiocarbon date of 423-570 cal AD (UBA 40367) was returned from carbonised residue on the interior of a sherd from quadrant 913.

This kind of structure is typical of Saxon times and they are sometimes interpreted as workshops as well as houses. The presence of the two spindle whorls could be thought of as strengthening the workshop hypothesis, but in fact the backfill need not necessarily relate to the use of the feature, as there is strong evidence that at least in some cases the hollow was deliberately backfilled with middened rubbish from elsewhere (Tipper 2004), and this could easily be the case here.

There is possibly another SFB (991) on the eastern edge of excavation. However, it lay partly under the baulk and could not be fully investigated. It was recorded as measuring 5m by 4.40m with a depth of 0.20m (Fig. 15). It contained a mid-grey brown fill of sandy silt that yielded several pottery sherds as well as some bone, some flint, some fired clay and pieces of slag. The bulk of the pottery was dated to the Saxon period and some sherds again had traces of food residue that was suitable for C14 dating. Interpretation of this as a cut feature is not in fact clear cut (in the field it was considered simply a ‘spread’ 991 and interpreted as midden, much as suggested above). The presence of Roman pottery among the Saxon material potentially lends some support to the latter interpretation. It also lacked post holes. A radiocarbon date of 428-594 cal AD (UBA 40368) was returned from carbonised residue on the interior of a sherd from the fill of 991.

Enclosures (Fig. 4)

Very tentatively assigned to the Saxon phase is a series of ditches in the north-east corner of the site, extending beyond it to north and east. They can be construed as forming two small enclosures. The only finds from these ditches were some burnt flint and five small sherds of early or middle Saxon pottery from 1015 and 1016, and another seven Saxon sherds from ditch 907 (probably an earlier cut, 1020, of ditch 1019, though this was not very clear). Although these ditches could all just as easily to be associated with medieval ditch 1023, the pottery has been taken at face value as providing a date for the entire series.

Ditches 1015, 1016 and 1017 were located in the north-eastern corner of the site and formed three sides of a small rectangular enclosure, which could be related to either of longer boundary ditches 1022 or 1023. Ditch 1015 was aligned south-east / north-west and had a width varying between 0.43m and 1.08m, and a depth of between 0.06m and 0.22m. Both termini were investigated at each end but it could be that this ditch peters out as it was relatively shallow. Ditch 1016 was for the most part under the baulk and could not be fully investigated. It was perpendicular to ditch 1015 and was aligned south-west / north-east. Ditch 1017 was located in the north-eastern corner of the site and was aligned south-west / north-east; it lay for the most part beyond the limit of excavation. It had an average width of 0.40m and was 0.08m deep.

Ditch 1018 was aligned south-east / north-west and had an average width of 0.90m and a depth varying between 0.25m and 0.42m. It contained one flint as well as fire-cracked flint. This feature was only partly exposed as it disappeared beyond the limit of excavation to the south-east but it appears to belong with ditches 1017 and 1019.

Ditch 1019 ran along the limit of excavation in the north-eastern part of the site aligned south-west / north-east. It had a width of between 0.35m and 1.10m, and a depth of between 0.11m and 0.67m. Its fill of mid-grey brown sandy clay yielded some struck flint as well as fire-cracked flint but it remains undated except by association with the rest of this series of ditches. In one place it appeared to have recut an earlier ditch on the same line (1020), which contained Saxon pottery.

Discrete features (Fig. 3)

The only other feature of this period was posthole which 530 was located to the east of Ditch 1041 and measured 0.55m in diameter and 0.12m in depth. It was also isolated but contained a single early/middle Saxon pottery sherd.

Medieval and Post-medieval

Linear features (Figs 3 and 4)

Two major parallel ditches (1013 and 1028) 140m apart appear to have been dug in the medieval period and remained open into probably the 18th century. They are on very similar alignments to the modern field boundaries, although it is also worth noting that they are also parallel to the ditches which have been considered to be Late Bronze Age/Early Iron Age. Several other ditches appear to be related as parts of the same layout, although the stratigraphy indicates that there was at least one phase of modification of this.

Ditch 1028 was orientated north-west to south-east and was visible through the entire length of the site, almost 150m long. It had a width varying between 1m and 1.45m, and a depth of between 0.14m and 0.38m (Fig. 12: Pl. 17). Its fill was quite homogenous and consisted of dark orange-brown sandy clay. Prehistoric pottery sherds were present in 2 of the 10 slots dug through it and a few struck flints were also present in five slots but it is dated by 9 sherds of medieval pottery from four slots. It was cut by ditch 1031, located in the north-western part of the site, making the latter more probably post-medieval.

Ditch 1013 was located in the eastern part of the site: it was also orientated south-east / north-west, had a width that varied between 0.80m and 1.25m, and a depth of between 0.22m and 0.35m. It had a fill of dark grey brown silty sand which contained both medieval and post-medieval pottery, as well as brick and tile and fire-cracked flint (possibly residual). The filling of this ditch thus dates to the post-medieval period but it may represent an earlier field boundary, part of the same field as ditch 1028.

Ditch 1023 almost crosses the whole length of the site and is orientated south-west / north-east and seems to cut ditches 1036 and 1034. It is in turn cut by post-medieval ditch 1013. It had a width varying between 0.60m and 1.90m and a depth of between 0.15m and 0.60m (Fig. 11). It had a homogenous fill of orange-grey sandy clay that yielded pottery, fire-cracked flint, fired clay and struck flint (the latter chiefly from towards the east end). Pottery from slots 807 and 834 was prehistoric but slots 548 and 943 had medieval sherds, while slot 948 contained medieval tile, and this suggests it was part of the same field layout as ditch 1028.

Ditch 1031 was orientated south-west / north-east and ran along the north-western limit of excavation. It seemed to be cutting Ditch 1028 but could be contemporary since they are perpendicular. It had a width varying between 0.85m and 1.15m and a depth of between 0.16m and 0.42m (Fig. 13; Pl. 18). Its fill of light grey brown sandy clay yielded struck flint and fire-cracked flint as well as a possible loom weight. This ditch possibly continued east and north as Ditch 1034. It is disturbed in the middle by quarry pit 802.

Ditch 1034 may be the continuation of Ditch 1031: it is on the same south-west / north-east alignment until it turns south-east / north west to head out of the site. It has a width varying between 0.77m and 1.88m (in the corner

slot) and a depth of between 0.11m and 0.21m (Fig. 13). It also contained struck flint, fire-cracked flint and fired clay but no pottery. It was cut by ditch 1023.

Gully 1029 was orientated south-west / north-east and its relationship with Gullies 1030 and 1032 remains uncertain. It was a short ditch, measuring roughly 30m in length, stopping just short of ditch 1028. between 0.85m and 1.10m in width and between 0.14 and 0.36m in depth (Fig. 13). Its fill of dark grey brown sandy-clay contained a moderate assemblage of medieval pottery. It could be contemporary with gully 1040 as they are almost parallel

Ditch 1040 lay north of gully 1029 and just south of ditch 1031, approximately parallel to both. It is only a short ditch – about 20m long, with a width of between 1.40m and 1.70m and a maximum depth of 0.18m. It disappears to the south-west and seems to have been obliterated by possible intercutting quarry pits 638, 639 and 640 but did not reappear beyond them and so like 1029, would have stopped just short of ditch 1028. It contained no pottery but is phased on the basis of this position in the layout.

Ditch 1036 was aligned south-south-east / north-north-west and also disappeared beyond the limit of excavation to the north of the site. It had a width varying between 0.70m and 1.13m and a depth of between 0.11m and 0.22m. Its fill consisted of mid-grey brown silty sand and it yielded pieces of struck flint and fire-cracked flint. It however remains undated. It seems likely that this represents the west side of a small enclosure formed by ditch 1034.

Ditches 1037 and 1038 lay both for the most part beyond the limit of excavation to the north of the site and only a few metres of each were visible. They were also quite shallow, with a maximum depth of 0.12m. They both had fills of dark-grey silty sand and the only dating evidence was two medieval sherds from ditch 1038. These could represent renewal of the west side of the enclosure 1034, or be aligned with ditch 1040 to form another similar enclosure.

Mostly beyond the site to the north, curving gully 945 produced no find during the evaluation but did yield a piece of probable medieval tile in the excavation. It was up to 0.5m wide and 0.15m deep (Fig. 11) and filled with a yellow-brown silty sand with some gravel. If the tile is considered intrusive, the feature's form might suggest it could potentially be prehistoric, but it is a large fragment and so may be taken at face value as dating evidence.

Possible quarry pits (Figs 16 and 17)

Quarry pit 1043 consists of multiple intercutting pits, variously numbered 608, 609, 638, 639, 640 and 644–8, but probably in fact only three cuts, with a total diameter of roughly 12m (Fig. 17). Their relationship was not however visible and it is highly probable that they were all contemporary. They combined to truncate the western end of ditch 1040 and so cannot be earlier than medieval. Pit 638 had a depth of 0.89m and contained three fills: 696 (tertiary fill) consisted of a dark grey brown silty sand that did not yield any finds, 697 (secondary fill) was a mid-orange

grey silty sand that yielded a few pieces of fire-cracked flint and 698 (primary fill) was a sterile mid-grey brown silty sand. Pit 639 had a depth of 0.93m and also contained three fills: 699 (tertiary fill) consisted of a dark grey brown silty sand that contained some pottery, 750 (secondary fill) was a mid-orange grey silty sand that also contained pottery, as well as fire-cracked flint and 751 (primary fill), a mid-grey brown sandy clay that yielded Roman tile, animal bone fragments and struck flint. Pit 640 had a depth of 0.80m and contained three fills: 752 (tertiary fill) consisted of a dark grey brown silty sand that yielded some pottery sherds, 753 (secondary fill) was a mid-orange grey silty sand that produced no finds and 754 (primary fill) was a sterile mid-grey brown silty sand. Pit 645 yielded four tiny scraps (1g in total) of possibly Bronze Age pottery and pit 609 a half-gram fragment of Late Iron Age pottery, obviously redeposited.

Quarry pit 1044 had a diameter of roughly 9m and a maximum depth of 1m. It was unclear how many cuts it represented (it was recorded as three, 702, 703, 802: Fig. 16) but it contained at least four fills: 879 (quaternary fill) consisted of a mid-grey brown sandy clay that did not yield any finds, 880 (tertiary fill) was a dark grey brown sandy clay that yielded some pottery sherds, 881 (secondary fill) was a blackish sandy clay with frequent charcoal inclusions that produced some wood and 882 (primary fill) was a mid- to light grey black sandy clay that did not contain any finds. This quarry obliterated ditches 1023 and 1031 (Fig. 16). Medieval tile was found in pit 702.

Other pits

Pit 615 cut Ditch 1028. It measured 1.40m by 1.10 and had a depth of 0.45m. Its fill of dark grey black sandy clay with charcoal flecks' inclusions yielded pottery sherds, struck flint and fire-cracked flint. Very near-by, another pit (616) also seemed to cut Ditch 1028. It was quite similar to Pit 615 in shape and size, with a diameter of 1.30m and a depth of 0.45m. It contained two fills, 674 and 675: basal fill 675 was 0.15m thick and consisted of dark grey brown silty sand and did not contain any finds. Secondary fill 674 consisted of a mid-grey brown silty sand and yielded several pottery sherds, dated to the Late Bronze Age/Early Iron Age period, but also an iron nail. Stratigraphically, however, both pits must be medieval (or later)

Pit 535 also truncated ditch 1028. It measured 1.60m by 1.40m and had a depth of 0.40m. It had a soft fill of mid-brown sandy silt that contained residual Saxon pottery, struck flint and fire-cracked flint.

Undated

Many of the site's features contained no dating evidence. An attempt has been made (above) to place some of these into phases based on the landscape layout, with varying degrees of confidence, but many remain uncertain. Only a few of the undated features are discussed below, details of the others are in the archive.

Linear features

Gully 1026 was orientated north-west / south-east but petered out to the north. It was very shallow with a width of 0.65m and a maximum depth of 0.13m. It is parallel to Ditch 1028 and may be associated with it, but the same argument could make it prehistoric and associated with 1027, 1030 and 1041. It had a fill of mid-grey brown silty sand that did not yield any finds or dating evidence.

Gully 1035 is located at the extreme north of the excavation area and was only partly exposed as it carried on under the baulk. It was aligned west-south-west / east-north-east and had a width of between 0.32m and 0.90m and a depth varying between 0.07m and 0.23m. It had a fill of dark grey silty sand that yielded fired clay and fire-cracked flint but no datable material.

Ditch 1021 is a short ditch that seems to branch out from Ditch 1022. It had an average depth of 0.20m and contained a fill of light grey sandy clay that yielded a few pieces of fire-cracked flint but no datable material.

Palaeochannel 1042 was a shallow feature, aligned south-west / north-east, that appeared to peter out at both ends and was visible in the central part of the site only. It had a width varying between 3.80m and 5.05m, and a depth of 0.22m. Its fill of light grey brown sandy clay contained frequent inclusions of gravel and flint pebbles but no finds or dating evidence was recovered. It is possible that its location may have influenced the positioning of the barrow, suggesting the stream was still flowing in the late Bronze Age, but there is no real evidence for this.

Discrete features

Two pits were investigated on the north-western limit of excavation: 501 and 502. 501 had a diameter of 0.60m and a depth of 0.29m; its fill of light grey-brown silty sand yielded one possible struck flint. Pit 502 lay partly under the baulk and could not be entirely exposed. It had an estimated diameter of 1m and a depth of 0.24m but its fill, which was very similar in nature to the one of 501 did not produce any dating evidence.

Two small groups of postholes and pits were identified in the western part of the site; the first group comprised postholes 505, 506, 507, 508, 516, 518 and pit 510, which is located in close proximity. The postholes were quite similar in shape and size, measuring roughly 0.50m in diameter and with depths varying between 0.11m and 0.25m. Pit 510 measured 1.18m by 0.70m and was 0.16m deep. They all had fills of mid-grey brown sandy silt but did not yield any dating materials: 508 contained fire-cracked flint, 510 contained one possible struck flint, 516 yielded one single piece of fired clay and 518 contained one flint flake.

The second group consisted of postholes 532, 533, 534, 537, 538 and 539. The cluster in some ways resembles the post-built granaries further east, but these features were not so evenly spaced and although they may be structural, there is no clear evidence. They had diameters varying between 0.30m and 0.50m and depths between 0.10m and 0.19m. Their fills were quite similar, consisting of dark grey-brown silty sand with moderate gravel inclusions. Some contained burnt flint but none had any dating evidence.

Several other features with no finds may be natural rather than archaeological (500, 512, 521, 942, 944). Some contained charcoal which may be the remnants of a tree stump being burnt out.

Pit 706 was located to the east of palaeochannel 1042. It was quite irregular in shape and measured 2.20m by 1m, with a depth of 0.23m. It was filled with a mid-grey brown silty sand that yielded two tiny prehistoric pottery sherds. It is highly possible that this feature represents a tree hole or natural feature rather than an archaeological one.

Posthole 812 was on the side of ring ditch 1024 although it was not possible to determine the relationship between the two. It had a diameter of 0.30m and a depth of 0.10m, and contained a sterile fill of dark grey brown sandy clay that did not produce any finds or datable material. This posthole may be associated with ring ditch 1024 although this remains only a suggestion.

Posthole 815 and pit 816 were also located on the side of ring ditch 1024 but their relationship could not be determined. Posthole 815 had an estimated diameter of 0.25m and a depth of 0.15m. It was filled with a mid-orange brown sandy clay that yielded some fire-cracked flint. Pit 816 had an approximate diameter of 1m and a maximum depth of 0.36m. It was also filled with a mid-orange brown sandy clay and did not produce any finds.

Pit 819 was also located on the side of ring ditch 1024 and seemed to cut it. It measured 1.10m by 0.90m and had a maximum depth of 0.34m. It contained two fills: secondary fill 956 of dark grey brown silty clay with occasional gravel inclusions yielded one single pottery sherd as well as one piece of struck flint and some fire-cracked flint. Primary fill 957 of firm, mid-grey brown silty clay with gravel inclusions did not contain any finds or dating material.

Posthole 835 was located about 5m south of posthole 834 but was otherwise also isolated. It had a diameter of 0.40m and was 0.12m deep. It contained a fill of mid-grey brown sandy clay that yielded a possible fragment of slag but no datable material. It may be associated with posthole 834, although this remains a suggestion.

Possible pit or ditch terminus 838 was mostly under the baulk on the eastern edge of the site. It measured 1m by 0.90m and had a maximum depth of 0.19m. It was filled with a mid-grey brown silty clay that yielded two pieces of struck flint. This feature may be prehistoric but is probably better considered undated. Similarly, pit 843 was located in the north-eastern corner of the site, roughly 4m to the south of possible pit 829. It was oval in shape and measured 0.50m by 0.40m, with a depth of 0.09m. It contained a fill of mid-grey brown silty sand that produced one piece of struck flint as well as some fire-cracked flint. This feature's date and function could not be determined.

Pit 845 was also located in the north-eastern part of the site, to the west of Ditch 1018. It had a sub-circular shape and measured 3.60m by 1.60m, with a depth of 0.24m. It had a fill of soft, mid-grey brown sandy clay that contained possible fragments of slag, suggesting it should be Iron Age or later, with the impression that it is probably post-medieval.

Posthole 901 was an isolated feature some 15m west of possible SFB 991. It had a diameter of 0.29m and a very shallow depth of 0.04m. Its fill of mid-grey brown silty sand however produced no finds.

Pit 946 was located in the southern part of the site, about 5m west of Ditch 1013. It was oval in shape and measured 0.75m by 0.60m, with a very shallow depth of 0.06m. It was filled with a soft dark grey brown silty sand that did not yield any finds and remains undated.

Pit 1104 was an isolated feature located towards the centre of the site, east of ring ditch 1024. It was oval in shape and measured 0.65m by 0.50m, with a depth of 0.09m. Its fill of mid-reddish-brown sandy clay contained occasional charcoal flecks inclusions as well as some small animal bone fragments (not cremated) and was thus sampled. It however remains undated. The poor survival of bone might suggest it was of no great antiquity.

Pit 1136 was located in the southern part of the site, about 13m west of possible granary 1010. It was oval in shape and measured 1.05m by 0.65m, with a depth of 0.18m. It contained a fill of mid- to dark orange brown sandy silt that yielded a single struck flint.

Finds

The Prehistoric Pottery by Richard Tabor

The combined prehistoric pottery assemblage from the present phase excavation comprised a total of 484 sherds weighing 11,140g, as well as two indeterminate sherds weighing less than 1g (Appendix 2). The assemblage was dominated by late Bronze Age/early Iron Age material from several pits and a cremation urn but there was also a possible residual later Neolithic to Middle Bronze Age component as well as a later Iron Age presence. This adds to the much smaller group from previous evaluation and earlier phases of recording action on the site (Raymond 2013; Tabor 2018a and b). The high mean weight (23g) of sherds belonging to this phase reflects the integrity of the stratified deposits within a few discrete features.

The sherds were allocated to fabric groups based on the material, size and sorting of the principal inclusions. Vessel forms were grouped also by characteristic profiles, where reconstruction was possible, or by rim or other diagnostic features, including surface treatments in accordance with guidelines for the recording and analysis of prehistoric pottery (PCRG 2010). The weights, fabrics and vessel parts of all sherds were recorded. Forms were classified using a scheme covering middle Bronze Age to early Iron Age pottery in Kent proposed by McNee (2012).

Fabrics

The fabrics comprise grog mixtures, coarse flint, sandy with usually sparse flint inclusions and two lacking flint altogether, one of which appears to have included organic matter (Appendix 2, Tables 1 and 2). Minor fabrics in the

assemblage unrepresented by sherds with morphological diagnostic traits can only be dated by reference to analogous mixtures from elsewhere in the Thames Valley as well as the pottery previously discovered on the site. In the wider region grog is more typically used from the Middle Neolithic until the earlier Bronze Age but co-occurred with flint in a Middle to Late Bronze Age bucket form vessel found during the earlier evaluation on the site and in a larger assemblage of the period from Sheppey, Kent (Cotton 1996; Leivers *et al.* 2010, 15, 19, 23; Raymond 2013, 9; Raymond 2003, 27). A badly abraded rim with fingertip impressions below it from pit 108 was in the coarse fabric F1 and may be residual from the middle Bronze Age, although it featured strongly in diagnostically late Bronze Age/early Iron Age sherds from pit 613 so has been included in the later phase.

Later Neolithic to Middle Bronze Age: grog mixtures

mG1 (Medium) Dark grey moderately soft, soapy, micaceous fabric with buff pink surfaces including moderate fine to medium rounded grog (<2mm).

Common coarse flint occurred in the late Bronze Age assemblages at Stansted and its persistence into the late Bronze Age/early Iron Age transition at East Hall Farm is illustrated amply not only by morphologically diagnostic sherds in F1 but also by sherds in F2 from pit 511 (Leivers 2008, 17.31). Variation due to deliberate grading of flint in contemporary elements of the late Bronze Age assemblage at Runnymede demonstrates that the size and density of inclusions are not necessarily reliable chronological indicators (Longley 1991, 163-4). Indeed, the present site has produced several sherds from well-made vessels in medium fabrics which might either be from middle Bronze Age fine ware or from later Iron Age vessels.

Two minor elements of the assemblage are several sandy and several micaceous vesicular sherds which are likely to have included fossil shell which has weathered out. Linear voids in a few other sherds in a quartzitic fabric may be impressions of organic material. At Snowy Fielder Waye, Isleworth, the use of fossil shell was particular to the later Bronze Age/early Iron Age whilst sandy sherds with organic inclusions formed a small component of the middle Iron Age assemblage (Timby 1996, 43, 47, 50, no. 38). The distribution of fabrics by contexts shows several instances of chronological overlapping. In most cases the sherds are small and may either be residual, predating the cut in which they were found, or intrusive and significantly later than their cut.

Middle to Late Bronze Age: flint

F1 (Coarse) Moderately hard grey fabric with buff orange to grey surfaces including common angular burnt flint (<3mm). Surfaces may be burnished or smoothed.

Late Bronze Age/early Iron Age: sand and flint

F2 (Coarse) Moderately hard grey fabric with buff orange to grey surfaces including abundant fine (<1mm), moderate to common medium (<2mm) and sparse to moderate (<6mm) sub-angular burnt flint. Surfaces may be burnished or smoothed.

F3 (Medium) Moderately hard grey to pink fabric with buff orange to grey surfaces including abundant fine (<1mm), sparse medium (<2mm) and rare medium/coarse (<3mm) sub-angular burnt flint. Surfaces may be burnished or smoothed.

fS1 (Medium) Moderately hard grey sandy fabric with buff yellow to orange exterior and grey interior surfaces including sparse medium (<2mm) to very coarse angular burnt flint (<8mm). Smoothed exterior.

fS2 (Medium) Moderately hard grey sandy fabric with buff yellow to grey exterior and grey interior surfaces including rare fine to medium angular burnt flint (<1.5mm) and fine quartz (<0.25mm). Smoothed or rusticated exterior but lower wall may be scratched.

fS3 (Coarse) Moderately hard grey sandy fabric with buff red to grey surfaces including poorly sorted sparse to patchily moderate medium (<2mm) to coarse (<6mm) angular burnt flint. Near vertical scratch marks on middle and lower wall sherds.

fS5 (Medium) Moderately hard grey sandy fabric with buff yellow to grey exterior and grey interior surfaces with sparse coarse 1mm wide, up to 5mm long, striated linear impressions and including rare fine to medium angular burnt flint (<1.5mm) and fine quartz (<0.25mm).

FS6 (Coarse) Moderately hard grey moderately micaceous sandy fabric with buff red to grey surfaces with rare to sparse coarse <1mm wide, up to 5mm long, striated linear impressions, including poorly sorted moderate fine to medium (<2mm) to coarse (<4mm) angular burnt flint and rare fine to medium (<0.5mm) rounded quartz.

FS7 (Coarse) Moderately hard, grey, sandy fabric with reddish brown to grey surfaces including abundant fine to fine/medium (<2mm), moderate medium coarse (<4mm) up to sparse very coarse (<15mm) angular burnt flint and sparse fine (<0.5mm) to rare medium (<1mm) rounded quartz.

FS8 (Medium) Moderately hard grey micaceous sandy fabric with buff red to grey surfaces including moderate fine (<0.25mm) rounded quartz and sparse to moderate fine to medium (<2mm) to rare medium/coarse (<4mm) angular burnt flint. May have smoothed or burnished exterior.

QF4 (Medium) Hard grey fabric sometimes with pink margins, with buff red to grey exterior and dark grey interior surfaces including abundant fine (<0.25mm) sub-rounded quartz and moderate fine (<0.5mm) and sparse fine medium/coarse (<3mm) burnt sub-angular flint.

Late Bronze Age/early Iron Age: sand and flint

fG3 (Fine/medium) Moderately hard grey, micaceous silty fabric with buff orange to grey surfaces including moderate fine (<1mm) to medium (<2mm) grog, sparse to moderate fine (<0.25mm) sub-rounded quartz and rare fine to medium/coarse (<3mm) sub-angular burnt flint. Surfaces may be smoothed.

Late Bronze Age/early Iron Age: vesicular

mV1 (Medium) Moderately hard grey micaceous fabric with buff red to grey surfaces. Pitted with fine to medium (<3mm) sub-angular voids probably due to dissolution of calcareous material such as fossil shell.

vmS1 (Fine) Moderately hard grey micaceous sandy fabric with sub-angular and linear voids (<3mm) probably due to dissolution of calcareous material such as fossil shell.

vG1 (Medium) Grey moderately soft, vesicular fabric with buff pink to grey surfaces including moderate fine to medium rounded grog (<2mm) with frequent medium to coarse (<5mm) sub-angular voids.

vQ1 (Medium) Moderately hard dark grey micaceous fabric with buff red to grey surfaces including common fine (<0.5mm) to sparse fine/medium (1mm) sub-rounded quartz. Pitted moderately with fine to medium (<3mm) sub-angular voids probably due to dissolution of calcareous material such as fossil shell.

Several rim sherds in sandy fabrics with flint which are demonstrably of later Iron Age date. With the notable and surprising exception of one of the rims the sherds were all small, with a mean weight of 4.8g, and some were demonstrably intruders in earlier stratified contexts.

Later Iron Age: quartz / sand

Q1 (Medium) Hard grey fabric with pink surfaces and sometimes pink margins including abundant fine (<0.25mm), sparse medium (<1mm) and rare coarse (<2.5mm) rounded quartz.

Later Iron Age: quartz / sand and flint

fQ1 (Medium) Hard grey fabric with pink surfaces and sometimes pink margins including abundant fine (<0.25mm) and sparse medium (<1mm) rounded quartz and rare fine angular flint (<1mm).

fQ2 (Medium) Hard grey fabric with pink surfaces including abundant fine (<0.25mm) rounded quartz and rare fine angular flint (<1mm).

QF1 (Medium) Moderately hard yellowish grey micaceous fabric with buff orange surfaces including moderate medium angular burnt flint (<2mm) and rounded quartz (<0.5mm). Smoothed exterior.

QF2 (Medium) Hard grey fabric with grey brown surfaces including abundant fine (<0.25mm) and sparse medium quartz (<1mm) and sparse fine (<1mm) and rare medium (<5mm) angular flint.

QF3 (Medium) Hard dark grey fabric sometimes with pink margins, with dark grey to black exterior and buff brown interior surfaces including abundant fine quartz (<0.25mm) and moderate fine (<1mm) and sparse medium (<2mm) angular flint.

fS4 (Medium) Hard dark grey moderately micaceous sandy fabric with buff orange exterior and dark grey interior surface including rare to sparse poorly sorted fine angular flint (<1mm).

Later Iron Age: organic and quartz mixture

QOr1 (Medium) Moderately hard dark grey fabric with buff orange surfaces with frequent coarse 1mm wide, up to 5mm long, striated linear impressions and including sparse to moderate fine to medium rounded quartz (<1mm). Rusticated surfaces.

Vessel forms

A complete vessel containing a cremation has a plain, unassuming lopsided, slack bucket form which in itself offers little dating evidence (Fig. 19: 1). A middle Bronze Age date cannot be excluded but intermittent expansion of the base and faint slanting dragmarks imply that a late Bronze Age date is most probable. Cabling, such as that on a flattened rim (Fig. 19: 2), or fingertip impressions on the tops of similar rims featured in the late Bronze Age assemblages at Runnymede and Isleworth (Needham 1996, fig. 63, P673; Timby 1996, fig. 6, 34 and 36).

Sherds in the coarse fabric fS3 with impressed neck-cordons of McNee's late Bronze Age/early Iron Age type 8 (McNee 2012, 316) were recovered from pit 511 (Fig. 19: 9 and 10) and examples without a cordon from pits 519 and 613 (Fig. 19: 13, 15 and 16). Comparable jars have been recorded elsewhere in and around the Thames Valley, including Runnymede Bridge, Stansted, Essex and Shelford quarry, Kent. They include fingertip impressed and plain cordons at the base of the neck (Longley 1991, fig. 101, P517; Needham 1996, fig. 67, P683; fig. 81, P799; fig.83, P836, P837; Leivers 2008, fig. 17.4, 26; Raymond 2003, 32, P18) and near vertical scratching on the lower walls of vessels with expanded bases (Needham 1996, fig. 64, P674; fig. 82, P809). Pit 511 included the sole example of McNee's sinuous jar type 9 (Fig. 19: 11), a form well-represented at Monkton Court Farm, Thanet (McNee 2012, 317; McPherson-Grant 1994, fig. 6).

The repertoire from the period includes further jars and bowls. A closed bowl with an incurved, bevelled rim from pit 613 (Fig. 19: 18) is broadly similar to McNee's Bronze Age type BO3 but closest to one large and three smaller bowls from a late Bronze Age/early Iron Age assemblage at Monkton Court Farm (McNee 2012, 312; McPherson-Grant 1994, fig. 11, 46-9). As noted above the morphology of the sherds from pit 515 reflects a marked variation from the prevailing typology. A flattened, outwardly expanded rim (Fig. 19: 18) from pit 515 is mostly likely to derive from a straight-sided jar of McNee's late Bronze Age type J1 (McNee 2012, 290). A rim from a bowl is of type BO6 which is judged to be of similar date (Fig. 19: 21). However, two incurved rims resist a clear-cut relationship to the typology (Fig. 19: 19 and 20). They have a loose correspondence with early Iron Age jar type J13

and are even closer to slack-sided jars from Houghton Down, Hampshire where as type JG2 they were judged to date from the 7th to 6th centuries BC (McNee 2012, 335; Brown 2000, 88, fig. 3.28). A small vessel represented in profile from pit 916, probably from a simple cup, is not closely datable (Fig. 19: 22).

Three base types were identified in the late Bronze Age/early Iron Age assemblage, most prolifically from pits 511 and 519. All but one of six from the former were moderately splayed and flat (Fig. 19, 12); the exception had a slightly concave underside (not illustrated). Those from pit 519 rose more steeply (Fig. 19, 14).

The relationship between form and fabric shows a marked difference between the composition of demonstrably late Iron Age material and that of the late Bronze Age/early Iron Age transition (Appendix 2, Table 4). This supports attribution of the type 13 jars from pit 515 to the earlier group.

Conclusion

Pottery from phases preceding or succeeding the late Bronze Age/early Iron Age transition phase appears in the main to be either residual or intrusive. The pottery from the transition phase is characterized by large but often moderately abraded sherds typical of coarse and fine wares from the Middle and Lower Thames Valley. It has strong affinity with the 8th to 6th century BC Highstead 2 style which is found widely in central and eastern Kent (Cunliffe 2005, 94, fig. A:4).

Catalogue of illustrated sherds (Fig. 19)

1. SF7. [605] (668). Complete vessel. Simple, slack, lopsided, squat bucket-form jar. Crudely flattened rim with occasional ridges. Slight local expansion of base. Slight slanting upward dragmarks on exterior. Rim radius: 100mm. Base radius: 78mm. Vessel height: 145-162mm. Wall thickness 8-10mm.
2. fS3. [333] (383). Upright, flattened rim with traces of cabled top. Wall thickness 8mm. Rusticated exterior. McNee jar type J7.
9. F2. [511] (562). Upper profile. Rim flared, flattened over concave, medium long neck. Fingertip impressed cordon on neck. Wall thickness: 12mm. McNee jar type J8.
10. F2. [511] (567). Upper profile. Rim flared, flattened over concave, medium neck. Fingertip impressed cordon on neck. Rim radius: 190mm. Wall thickness: 12mm. McNee jar type J8.
11. fS2. [511] (568). Upper profile. Rim flared, tapering, rounded over concave, medium long neck. Wall thickness: 8mm. McNee jar type J9.
12. FS8. [511] (567). Base angle. Base radius: 50mm. Wall thickness: 6mm. Base type BS5.4.
13. F2. [519] (573). Upper profile. Rim flared, flattened over concave, medium neck. Fingertip impressed cordon on neck. Rim radius: 170mm. Wall thickness: 9mm. McNee jar type J8.
14. fG3. [519] (573). Base angle. Base radius: 75mm. Wall thickness: 10mm. Base type BS5.1.
15. F1. [613] (671). Rim. Flared, straight external bevel, with close-set row of upward slashes on rim interior. Rim diameter exceeds that of shoulder. Rim radius: 110mm. Wall thickness: 8mm. McNee jar type J8. Sparse sharply incised lines on mid and lower wall and slightly concave base (not illustrated).
16. fG3. [613] (671). Rim. Flared, with close-set row of deep impressions on rim top and fingertip-impressed cordon on neck. Wall thickness: 6mm. McNee jar type J8.
17. F1. [613] (671). Upper profile. Inturned, straight internal bevel. Rim diameter exceed that of shoulder. Rim radius: 160mm. Wall thickness: 8mm. McNee bowl type BO3.
18. F2. [515] (566). Rim. Slightly everted, flattened, outwardly rolled. Wall thickness: 9mm. McNee jar type J1.
19. F2. [515] (566). Rim. Incurved, rounded, outwardly rolled. Wall thickness: 9mm. McNee jar type J13.
20. F2. [515] (566). Upper profile. Rim incurved, rounded, outwardly rolled. Rim radius: 125mm. Wall thickness: 10mm. McNee jar type J13.
21. FS8. [515] (566). Rim. Upright, rounded, inwardly rolled. Wall thickness: 8mm. McNee late Bronze Age bowl type BO4.
22. FS8. [916] (1070). Upper profile. Rim everted, rounded with local outward rolling. Rim radius: 40mm. Wall thickness: 6mm. Cup.

(Note omissions of numbers in the catalogue are sherds from phase 1 area previously illustrated.)

The Roman Pottery by Alice Lyons

A total of 15 sherds, weighing 123g, of late Roman pottery was recovered from a pit 520, spread 991 and SFB 1014 (Appendix 3, Table 1). The pottery is severely abraded with an average sherd weight of only 8.2g. The pottery was analysed following the national guidelines (Barclay *et al.* 2016).

Five distinct pottery fabrics were identified (RB pot table 1).

Sandy red ware: SREDW (unsourced), Jug, 4 sherds, 37g

Sandy grey ware: SGW (unsourced), Jar or beaker, 8 sherds, 35g

East Gaulish Samian: TRI SA (Tomber and Dore 1998, 41), Dish, 1 sherd, 30g

Hadham Red Ware: HAD OX (Tomber and Dore 1998, 151), Beaker, 1 sherd, 13g

Oxford Red Slipped ware: OXF RS (Tomber and Dore 1998, 176), Bowl, 1 sherd, 8g

The upper remains of a Sandy red ware pinched-neck jug, with faint traces of a white slip adhering were found within pit 520, alongside a few undiagnostic Sandy grey ware jar (or beaker) fragments. A Sandy grey ware flanged rim jar fragment was recovered from spread (991).

The remainder of the assemblage was recovered from within Saxon SFB 1014 and comprise an Oxfordshire red slipped ware decorated bowl fragment, a Hadham red ware beaker fragment, an East Gaulish (Trier) samian dish base, also three Sandy grey ware jar or beaker pieces. Although this a small assemblage the presence of late Roman wares, particularly red wares, within Saxon SFB is a phenomenon that has previously been noted and it may be that this distinctive and colourful sherds were deliberately curated by the Saxon community, if so this behaviour could inform on the Roman-Saxon transition (Paul *et al.* 2015, 85).

The Post-Roman Pottery by Sue Anderson

Table 1 (Appendix 4) shows the total quantities of pottery by period. Quantification was carried out using sherd count, weight and estimated vessel equivalent (eve). Where possible, sherd families were recorded, and a minimum number of vessels (MNV) was recorded for each context. Cross-fitting was only attempted where particularly distinctive vessels were observed in more than one context A full quantification by fabric, context and feature is available in the archive. All fabric codes were assigned based on the MOLA post-Roman fabric series (Early Anglo-Saxon – Cowie and Blackmore 2008, table 68; medieval and later – MOLA 2014). A ×20 microscope was used for fabric identification and characterisation. Form terminology for Early Saxon pottery follows Myres (1977) and Hamerow (1993). Methods follow MPRG recommendations (MPRG 2001) and form terminology for later pottery follows MPRG classifications (1998). The results were input onto an MS Access database (available in the archive).

Early Anglo-Saxon pottery

Early Anglo-Saxon pottery totalling 135 sherds and weighing 1996g was collected from 12 contexts, of which five related to SFB 1014. The eve (estimated vessel equivalent) for the whole assemblage, based on eight measurable vessel rims, was 0.66 and the MNV was 99.

Fabrics

Nineteen fabric groups were distinguished on the basis of major inclusions, as used for other Early and Middle Saxon sites in Greater London (Cowie and Blackmore 2018, table 68). However, it should be noted that, as with all handmade pottery, fabrics were extremely variable even within single vessels and categorization was often difficult. Background scatters of limestone/chalk, flint, grog, white mica and ferrous pieces, were present in many of the fabrics. All Saxon wares were handmade, and colours varied throughout from black through grey, buff and brown to red, often within single vessels. General fabric descriptions are listed in Appendix 4 (Table 2), which shows the quantities of Early Anglo-Saxon pottery by fabric.

Many sites in the region have produced similar fabric groups, although they occur in different proportions. In general, fine, medium and coarse quartz-tempered wares tend to be the most common fabric groups at sites in the London area, although in the later Early Anglo-Saxon period these appear to have been replaced to some extent by grass-tempered pottery. Organic-tempering is thought to be a late development in Essex (Hamerow 1993, 31), and Blackmore and Vince suggest a slow increase in the wares from the later 5th century onwards in the London area (Cowie and Blackmore 2008, 179), becoming dominant in the later 6th to mid-8th centuries. A decrease in calcareous wares was noted at Mucking after the 6th century.

At East Hall Farm, chaff-tempered fabrics were by far the most abundant type, making up 56.3% of the total number of sherds. Sandy fabrics form 34.1% of the assemblage, with calcareous fabrics making up only 5.9% and miscellaneous fabrics 3.7%. This suggests a later 6th or 7th-century date for the group.

Vessel form, surface treatment and decoration

The estimated vessel equivalent of 0.66 was based on eight measurable rims, but there were a further three rims which could not be measured. Measurements of handmade vessels are always approximate unless a large proportion of the rim is present. For this reason, the minimum number of vessels (MNV), based on sherd families, was estimated for each context, and cross-matches between contexts were recorded where possible, producing a total MNV of 99 vessels.

Very few vessels were complete, but it was possible to get an idea of shape from some of the larger body sherds, and carinated vessels were especially identifiable from even small pieces. Two vessels were categorized as bowls or possible bowls, seven as jars or possible jars, two were uncertain, and there were sherds from at least one perforated vessel. The range of sizes for those vessels whose rim diameters could be estimated varied from 60–

240mm, with three vessels between 110–140mm and three at 200mm. Unfortunately, owing to the wide variety of forms made, there is no correlation between rim diameter and pot capacity for Early Saxon wares.

Rim and base types were classified following Hamerow (1993, fig. 26). This produced a total of seven vessels with vertical rims, one with a flaring rim, and two with beaded rims. Four vessels had flat-angled bases and one was possibly rounded.

The vessel forms which could be categorized in more detail are shown in Appendix 4 (Table 3). Globular and hemispherical types appear to be the most common forms in this assemblage, with the earlier carinated types making up a relatively small proportion of the total. However, the carinated vessel in this assemblage was chaff-tempered.

Surface treatment — in the form of smoothing or occasionally burnishing – was very common in this group, most sherds showing some signs of one type, even if worn away in places. Two sherds had combed rustication (both calcareous tempered, and perhaps part of a single vessel) and there were five with *Schlickung* (a coarse slip), of which three were sand-tempered and two were chaff-tempered.

Seven vessels were decorated, most commonly with incised lines, although vessels were generally too fragmentary to determine the decorative schemes in detail. One vessel had a narrow band at the shoulder, comprising two horizontal lines with a diagonal line in between (Fig. 20: 1), and another had incised horizontal lines and diagonal grooves (Fig. 20: 2). A sand-tempered vessel in a highly fired pale grey fabric had curving and straight groove decoration – the fabric of this sherd is unusual and could be imported (Fig. 20: 3). One chaff-tempered sherd appeared to have a hollow boss.

Distribution

The majority of the Early Anglo-Saxon pottery was recovered from SFB 1014 (99 sherds, 1843g), with the second largest group from spread 991 (19 sherds, 83g). Small quantities were collected from posthole 530, pit 535, ditches 907, 1015 and 1016, and ring-ditch 1024.

SFB 1014

SFB 1014 produced the largest single feature group of Early Anglo-Saxon pottery, a total of 99 sherds. A few sherds of prehistoric and Roman date were also recovered.

Only one fill was recorded in the SFB, divided into four quadrants; two sherds (89g) were recovered from post-hole 1011 between quadrants 912 and 913. The sherds were not evenly distributed across the feature, the largest group (44 sherds, 726g) being in the SW quadrant, followed by the NW quadrant (23 sherds, 499g: Appendix 4 (Table 4). Few cross-links were noted in the group, but this was partly due to the high proportion of chaff-tempered vessels which are particularly difficult to match unless there are joining sherds. However, one decorated vessel occurred in both 1064 and 1067.

Table 5 (Appendix 4) shows the fabric distributions in this group, indicating the dominance of chaff-tempered wares.

Most of the identifiable forms (as discussed above) were recovered from this group, with the exception of one jar and one bowl, both globular.

SFB 991

Nineteen sherds of Early Anglo-Saxon pottery were recovered from this feature. The relatively large quantity may indicate that it was used as a midden in the period, or that it represents a heavily truncated SFB. Table 6 (Appendix 4) shows the fabric distributions in this group, which was dominated by sand-tempered wares. This group included one sub-biconical vessel and two vessels with *Schlickung*. Two tiny sherds of one or two perforated vessels were also present; this type of vessel occurs in several of the SFBs at Mucking (Hamerow 1993, 44) and at Harmondsworth (Cowie and Blackmore 2008, fig. 72) and may have been used for making cheese.

Taken as a whole, the evidence indicates an earlier date for this feature than for the fill of SFB 1014, although it should be noted that the chaff-tempered sherds in this group were significantly larger on average than all other fabric groups.

Other features

Ditch 907, at the northern edge of the site, contained seven sherds of a chaff-tempered (CHFQ) globular ?bowl with a vertical rim (110mm diameter) in fill 1061.

Ditch 1015 (slot 905, fill 1059) contained two very small sherds, one sandy and one chaff-tempered, which were probably residual. Three tiny sherds of a chaff-tempered vessel from ditch 1016 (slot 828, fill 980) were also residual, being found in association with medieval pottery (see below).

Two sherds of a chaff-tempered globular jar from ring-ditch 1024 (slot 822) were likely to be intrusive in this feature.

Fragments of two ESFG vessels were recovered from posthole 530 (2 sherds) and pit 535 (1 sherd). There is a possibility that all three sherds could be prehistoric.

Discussion

The majority of Early Anglo-Saxon pottery in this assemblage was recovered from the fill of a sunken-featured building. This is typical of settlement sites of the period, with rubbish disposal assumed to have taken the form of middens which were either used to backfill the open pits of these buildings after demolition, or were left to spread and become incorporated in later soils. The relatively large group of pottery from SFB 991 (which was not fully excavated) may indicate that this was the remains of such a midden, or a heavily truncated pit of an SFB. Finds from this feature and from SFB 1014 appear to represent two different periods of Early Saxon occupation, with the former containing earlier wares than the latter. Average sherd weight may indicate some residuality of the sand-tempered

wares in comparison with the chaff-tempered wares in both features, however, especially given the friable nature of some of the latter.

There are anomalies in the dating of the pottery from the SFB. At Mucking, *Schlickung* was largely confined to the 5th- and early 6th-century area of the settlement (Hamerow 1993, fig. 23), carinated forms were more common in the 5th century (Hamerow 1993, fig. 27) and grass-tempered wares were more frequent later. At East Hall Farm, *Schlickung* and carinated forms are present in chaff-tempered fabrics, which are usually assumed to date to the later part of the Early Saxon phase. The few examples of decorated wares also appear to be relatively early types, including two of Myres' 'linear diagonal and vertical zones' type. The generally globular forms of most of the vessels would fit best with a 6th-century date, and this appears to be confirmed by the apparent cross-over of early surface treatments on later fabrics.

Combed rustication is a 5th- to 6th-century form of surface treatment, and in this group occurs on oolitic-tempered wares, which are assumed to be from counties to the west and north-west of London (Cowie and Blackmore 2008, 178). Few other sites in London have produced these fabrics, the majority being from Hammersmith (Cowie and Blackmore 2008.).

One sherd of sand-tempered pottery from SFB 1014 was in an unusually high-fired fabric (for the period), was pale grey in colour and had deeply grooved decoration in the form of straight and curving lines. It is possible that this sherd was imported, but at the very least it is likely to be non-local.

Medieval and later pottery

Appendix 4, Table 7 summarizes the post-Saxon pottery recovered from the site. The majority of post-Saxon pottery was of early medieval date. A few sherds of the earliest sandy and flint-tempered types were present, but the majority of sherds were shell-tempered and comparable with Essex fabric 12 (e.g. Cotter 2000) or possibly Kentish shelly wares (Blackmore and Pearce 2010). A few later sandy-shelly wares were also present, mostly identified based on evidence of manufacture (wheel-turning) as the fabrics were broadly the same. In most cases, the shell had leached out of the sherds and only traces of calcareous material remained. Five shelly ware rims were present, of which four were jars and one was a bowl. The jar rims comprised a cavetto form (cf. Blackmore and Pearce 2010, fig. 20.1), an everted beaded type similar to a Kentish example (cf. Blackmore and Pearce 2010, fig. 14n), an upright type with a sharp external bevel at the rim tip (this may be Late Saxon), and a flaring type with a groove in the rim edge (cf. Blackmore and Pearce 2010, fig. 32.141; illus). The bowl rim was an everted square-beaded form. Table 8 (Appendix 4) shows the distribution of these wares, all of which were recovered from linear features, the majority from gully 1029.

One sherd of Mill Green coarseware was recovered and was the latest high medieval sherd from the site. It was found in ditch 1013, as were a base fragment of a late London-type slipware vessel, a Raeren stoneware base

fragment and a small piece of creamware. This may suggest a medieval origin for the field boundary, with final infilling in the 18th century.

The post-Saxon group appears to suggest some activity on the site in the 11th and early 12th centuries. The range of wares present is comparable with an assemblage from a site located just to the north of East Hall Farm, at Launders Lane (Blackmore 2008), which was also dominated by a range of shelly wares. At that site, a few medieval glazed wares were also present, suggesting that activity there continued longer than at East Hall Farm. The assemblage from the latter is relatively small, but provides further evidence for the types of medieval pottery in use in this part of Greater London.

Unidentified

Two sherds were unidentified. One is a large thin-walled body sherd in a coarse, soft fabric containing abundant large clay pellets coarse, coarse flint/quartz, and burnt-out organics, with pinkish surfaces and a pale grey core. It was from gully 1022 and may be Roman or medieval. The other sherd is possibly a base fragment in a coarse sandy fabric with white angular quartz/flint and ?grog inclusions, and circular pierced area with small holes 1-2mm diameter in the flat surface (?underside), which is worn; it is uncertain whether the fragment is pottery or ceramic building material. It was from ditch 1028.

The Struck Flint by Steve Ford

A collection of 224 struck flints were recovered during this phase of fieldwork as detailed in Appendix 3 (summary in Table 1, catalogue in Table 2). It is thought that a significant proportion of the collection is of Mesolithic date. This is reflected in the presence of some 45 narrow flakes (blades) comprising 24% of the flake total. Although the categories were assigned by eye, it is clear that this is a significant proportion (Ford 1987). In addition, the only cores recovered were narrow flake cores. One possible microlith was recovered, it would be an oblique blunted point but the tip was formed on the bulbar end of a blade and the retouch was not well formed. There is no supporting evidence to suggest that the narrow flake collection also includes an Earlier Neolithic component.

The narrow flake component includes a number of well-produced blades with fine bladescars on the dorsal surface and made from cores, much larger than the three recovered here. However, many pieces despite being long and thin are roughly made and may represent core preparation rather than production of the finer blades themselves.

The collection has been derived from several contexts and is obviously not a single homogenous assemblage. This divergence is also reflected in the sources and post-depositional weathering of some of the material. Where cortex remains, the flintwork was made on nodules obtained from the local gravel but one of the blade cores seems to be made on a nodule direct from a chalk source. One large narrow flake 115mm long is exceptional for this

collection and is too big to have been made from the local gravel. It would appear to be made on a nodule direct from the chalk nodule source and is also lightly patinated. It is not clear if this piece is of Upper Palaeolithic date. Six other pieces were also patinated bluish white, but occasionally heavily so and appear to have been collected from somewhere on the chalklands and imported to the site. One or two other pieces were also distinctive, such as a blade on a light brown flint, which also seem to have been imported from elsewhere.

The retouched component is poorly represented, comprising just a single scraper, the possible microlith and a possible serrated flake. A few other pieces show utilisation damage. One flake also seemed to have a use-polished end such as might be found on a sponge finger or fabricator, but again the observation is not clear cut. A few pieces had been burnt.

Despite a clear Mesolithic component, the other material recovered is less chronologically distinctive but easily contemporary with the Bronze Age contexts from where it was recovered.

It is considered therefore that a Mesolithic occupation site is represented by elements of this lithic collection in addition to material reflecting the Bronze Age activity on the site. However, a curious observation is that initial fieldwalking of the site recovered a moderate volume of flintwork which formed a cluster pattern and which was interpreted as representative of an occupation site (Ford 2013). Some narrow flakes were recovered but only in low numbers and no suggestion of a Mesolithic site was concluded.

Stone object by Danielle Milbank

A single stone object was recovered during the excavation, from sunken featured building 1025, segment 910 (deposit 1064). This comprised a spindle whorl of a fine-grained grey sandstone, with a smooth finish and flat upper and lower surface, with a slight chamfer showing that it was shaped by grinding. It is circular, 46mm in diameter, with a central hole of 13mm diameter. The form and size of the spindlewhorl is comparable to examples of late Saxon date described in Rogers (1997, 1736), though the uneven distribution of this type throughout Britain during this broad period means that it is not more closely datable.

Ceramic building material by Danielle Milbank

A modest quantity of brick and tile fragments was recovered during the excavation, hand collected and retrieved from sieved soil samples (Appendix 7). The majority of the fragments are identifiable as tile, and the typical fragment size is medium (20mm to 100mm). The smaller fragments (5g or less) were not diagnostic and could equally represent brick or tile, and the material is in moderate to poor condition, with frequent abrasion.

Roman tile

Several forms were identified, which are of Roman date. Pit 639 (deposit 751) contained two pieces in a slightly soft clay with sparse fine sandy inclusions. Two pieces in a pale orange red colour are 11mm thick and slightly curved, and may represent pieces of *imbrex* (curved roof tile). One piece in a slightly laminated fabric of a mid orange red colour and is 16mm thick, with a broken edge showing where the form of the tile was bent at an angle to form a box shape. These box tiles have thin parallel incised lines (usually made with a comb) and were used to form hypocaust floors and walls, with warm air channelled through them and the combed lines providing keying for plaster. Here, the combed lines are shallow due to abrasion.

Sunken Featured Building 1014 contained pieces of Roman tile from a range of deposits. Slot 910 (1064) contained three pieces of tile in medium brown and brown grey fabric with combed lines showing they are further fragments of box tile (one with six parallel lines and one with three broad lines). A further piece of box tile (with 6 lines shallowly applied in a wavy pattern) and two pieces of a thickness of 21mm (possibly represent another flat tile form were recovered from slot 911 (1065). A piece recovered from 913 (1067), again box tile, in a medium-hard grey red fabric has five combed lines which overlap a second set of lines at a right angle.

Medieval and Post-medieval material

Pieces of likely medieval date were recovered from pit 702 (deposit 776) and are 11mm thick, in a hard fabric with very sparse sandy inclusions. The colour is a medium red with a grey core indicating reducing conditions. The thickness and finish of the tile is suggestive of a medieval date.

A single piece recovered from gully slot 945 (1163) is in a fine, evenly fired fabric and is of broadly medieval or early post-medieval date based on the form and finish. A piece in a similar fabric with an uneven finish and slightly thickened edge was recovered from ditch slot 948 (1166) and is of the same date range.

A slot (1102) excavated through ditch 1013 contained a single piece of tile in a hard, evenly-fired slightly sandy fabric, 16mm thick and of a likely post-medieval date. Ditch 1013 was excavated in several further slots (1103, 1105, 1107, and 1109) which contained pieces of a range of tile fabrics all of a similar fabric and thickness and likely late medieval or early post-medieval date range.

Conclusion

The material encountered in the excavation can be divided into two main periods, Roman and medieval to post-medieval. The Roman material was encountered as residual material in features of Saxon date, specifically in the sunken featured building 1014, and was typically found in a fairly abraded condition. A limited range of forms were present, comprising *imbrex*, several examples of box tile and plain roof tile. No complete examples were encountered and no tegula fragments or closely datable types were identified.

The medieval and post-medieval material comprised roof tiles, with occasional examples of a peg hole present, though no other form were encountered. Little medieval material was recovered, with pieces only encountered in one feature, and post-medieval material was distributed throughout ditch 1013.

Fired clay by Danielle Milbank

A total of 260 fragments (11.834kg) of fired clay material was recovered in the course of this phase of excavation. It was distributed throughout a range of contexts, typically in small quantities, and fairly highly fragmented, with a small number of contexts producing 1kg or more (Appendix 8). The fabric is typically medium to soft, and comprises fine clay with sparse fine sand inclusions, and very occasional small angular burnt flint inclusions. The colour is uniformly a medium red, poorly-fired at low temperature, with occasional examples of blackening which is indicative of reduced oxygen conditions during heating. The material was examined under x10 magnification.

Pit 511 (561) contained several large loomweight fragments of an elongated triangular shape, pierced through the narrow top end with a hole of 10mm diameter. The fabric is a dark brown red slightly soft to medium clay with frequent fine and coarse sand inclusions. Although no complete examples were recovered, the approximate minimum height can be established as 200mm and the thickness as 105mm, and a width of *c*. 100mm can be approximated based on the pieces present. The number of pieces present suggests that the material represents three or more complete loomweights, and no co-joining pieces were present.

From pit 511 (deposit 567), a large triangular loomweight fragment was recovered which is of a slightly friable, slightly sandy clay fabric with occasional large (5-10mm) flint or chert inclusions. The width is 105mm and the full thickness is not present. The height of the piece is 130mm (with the full height when complete approximately 160mm, based on the angle of the sides and position of the perforation). Two further pieces in the same fabric co-join and represent another loomweight likely to be of the same approximate size and triangular form.

Deposit 568 from the same pit contained one weight and one fragment, both in a slightly soft fine fabric with sparse sandy inclusions and an orange red colour (with one dark black grey reduced part). The complete weight is a small elongated (only slightly tapered) triangular, with the base 60mm wide and top 48mm wide. The central perforation through the top end is 9mm diameter and the weight represents a small form of the elongated weights encountered in other deposits infilling pit 511. The purpose of these smaller weights (usually classified as loomweights but occasionally described as thatch weights) is uncertain, and is has been suggested that the size of the weights relate to the thicknesses of thread bundles, with these smaller weights holding smaller bundles of warp threads.

Also from pit 511 (deposit 569), a large fragment of a loomweight with a width of 120mm and thickness of over 80mm was recovered, in a medium hard, slightly friable fine sandy clay and a dark red colour, dark grey and

black in places. Although the upper part was not present, it appears to be similar in proportion to the tall triangular loomweight forms recovered from deposit 561.

Pieces from ditch slot 547 are a abraded fine slightly sandy clay fabric in a red brown colour, with smooth surfaces to some pieces but no pierced holes or flat surfaces present.

Pit 613 (deposit 671) contained a range of fragments in a fine slightly sandy fabric with an orange red colour. The largest of the pieces has a curved side and flat base suggestive of a loomweight, though the form cannot be established.

From posthole 736 (deposit 862), a small piece in a dark grey brown fabric was recovered, which is pierced with a hole of 10mm diameter and is likely to represent a further loomweight, though the form and dimensions are uncertain. Again, ditch slot 725 (851) contained a fragment in a with a flat base and two neat sides, suggestive of a triangular or elongated triangular loomweight of likely Roman date, but residual in this medieval ditch.

From layer 991, several pieces in a slightly soft, medium fine sandy clay of red brown colour were recovered, at least one of which represents a loomweight of uncertain, though probably triangular, form, with evidence of two holes. It is of probable Roman date, and abraded.

Sieved soil samples taken from pit 915 (deposit 1069) contained fragments in a slightly soft sandy friable fabric with a dark brown colour. Several of the pieces have a curved surface suggestive of a loomweight.

Overall, the fired clay was highly fragmented. Identifiable pieces comprised loomweight, with no other categories of fired clay object identified with certainty. No pieces were identified which have the characteristic pattern of wattle impressions suggesting daub, but it is possible that some of the highly fragmented material represents daub or a clay covered structure (for example an oven or kiln). All of the loomweight pieces whose form can be assessed can be described as triangular, which could indicate a Roman date, but there is no real reason to suppose they are not contemporary with the pottery in pot 511. Roman weights tend to be more equilateral than the examples here, have more than one perforation, and often show marked striations on the corners, lacking here. A pyramidal form with just one or two perforations is commonly found in LBA/EIA contexts (while earlier Bronze Age forms are cylindrical), but the triangular is not far removed from this. Some of the fragments whose form could not be determined could be of possible Iron Age date, with very fragmented and abraded pieces likely to have been redeposited in later contexts. One potentially Roman piece is certainly residual in a medieval ditch.

Glass by Danielle Milbank

A single piece of glass was recovered from subsoil layer 51. It comprises a flat piece 4mm at its thickest at one side, thinning gradually to 2mm. It is pale blue green and overall has a thin layer of patination, which shows a surface treatment of narrow wiped horizontal stripes where no patination is present. The surface treatment, shape and thickness suggest it represents the side of a square profile vessel, and although likely to be broadly Roman is not closely datable.

The Metalwork by Aidan Colyer

The assemblage recovered from the excavation can be split into two parts. The first of these are the finds recovered from the SFB 1014. The second are the finds that were recovered from the rest of the site.

The group of finds from the sunken featured building 1014 includes ten ferrous objects, four copper alloy objects, and three lead objects.

Ferrous objects.

The ferrous objects include six nails, two possible awls, an unidentified object, and a single blade.

The nails are typical of nails from most eras and cannot be dated in and of themselves. The states of preservation vary although where visible they confirm to Manning type 1 square shafted nails. None is complete and one is severely bent.

The possible awls are heavily corroded although the rough circular cross section can still be identified. The tips can be seen on both although there are no further distinguishing marks.

The blade was in a poor state of preservation. The edge of the blade was difficult to identify and the object as a whole was of a basic type. A partial tang was visible after cleaning which confirmed that it is a blade.

The single ferrous object with the heaviest corrosion could not be identified even after cleaning. This object could be a larger piece of corrosion or the remains of a nail's head, however, this cannot be said for certain.

Copper alloy and lead objects

The copper alloy objects included two pieces of plate, one piece of scrap and a single hairpin.

The two pieces of plate were undecorated and in a good state of preservation. The weight suggests that lead has been added to the alloy. Both pieces are small with the largest dimension being only 26mm. Due to the small size and lack of decoration the vessels that these pieces came from could not be identified or dated.

The hairpin is in a very good state of preservation. Only minor cleaning was needed to be able to identify the decoration clearly. The length of the piece is 122m with the head being 10mm in diameter. The shaft of the piece has

a diameter of 2mm at the widest point. The weight of the piece is 4.5g. The head has incised decoration consistent with Late Roman artefacts manufactured in Britain.

The lead objects recovered from the group included a complete lead weight, part of a lead weight and a piece of lead strip.

The lead strip is 58mm in length with a width of 20mm and a thickness of 5mm. The weight of the piece is 39.5g. This piece is likely an offcut of lead and has no clear form so is likely scrap that has been kept but not used. It is undiagnostic and only shows that lead was being used in the area at the time.

The other two pieces of lead are from weights. The first of these has a diameter of 65mm with a central hole that is 15mm. The height of the piece is 12mm and the weight is 308.5g. The piece is flat on the bottom with the top being a shallow dome. This piece is likely a loom weight. Fired clay loom weights have been recovered from the contexts as well which lends strength to the identification. The second of the lead weight pieces is a fragment of the edge of a weight. It weighed 16.5g and measured 51mm by 32mm with a height of 2mm. It is possible this is also scrap but the curve of the edge suggests that it was also a loom weight.

Others

The second group of artefacts are those that were not recovered from group 1014 and is entirely composed of nails.

Six nails were recovered from a possible cremation or cremation-related deposit in pit 739. These were all in a good state of preservation. They varied in length from 55m for complete nails and 30mm when not complete. Where heads were present they were amorphous, and all had square shafts. One outlier within this group was cat no 7. This nail had a clearly tapering shaft and weighed slightly more (6.5g) than the average for the group (4g). Other than the slight differences the nail has identical characteristics to the rest of the group. All of these nails can be classified as manning type 1a, not diagnostic as to date.

The final nail was recovered from pit 616. This is a standard square shafted nail with a length of 40mm and a shaft width of 6mm. Both the head and the tip of the nail have not survived. This is a typical nail with no diagnostic date.

In conclusion the group of artefacts is typical of a site such as this. The outlier is the copper alloy hairpin which is a significant and relatively rare find. To find Roman artefacts such as this in sunken featured buildings is not uncommon and the later date of the decoration on the piece adds to the likelihood of it surviving into the early Saxon period. The weights connect to the other artefacts and represent a low level of industry within the area. This is also consistent with sunken featured buildings.

The Slag by Aidan Colyer

A tiny amount of slag, just 6g, was recovered from pit 845, posthole 835 and 'spread' 991. These pieces were small and undiagnostic with a large part of the assemblage being made up from clinker. This cannot be closely dated although it is common from post-medieval farming contexts. This assemblage is not significant and is likely to represent casual loss from a late period rather than any metalworking on the site.

The Burnt Flint by Odile Rouard

A total of 10171g of burnt flint was recovered from 127 contexts (Appendix 9). Most features only contained a few pieces however, indicating prehistoric activity but allowing no further conclusions to be drawn.

Burnt Human Bone by Ceri Falys

Small deposits containing burnt bone were identified in four features: pits 540 (575), 739 (864) and 1112 (1181), and within an urn in pit 605. Burnt non-human bone also came from pit 511 (562) (see animal bone report). Each deposit containing burnt bone was whole-earth recovered on site. The urn containing bone from 605 was lifted intact and the internal fills were excavated in a series of six 0.02m spits. All deposits containing burnt bone were floated and wet-sieved to a 2mm mesh size during post-excavation processing, with all burnt bone and other associated residues separated for further analysis.

Prior to osteological analysis the bone from each context was sorted using a sieve stack comprising 10mm, 5mm, and 2mm mesh sizes and weighed. The weights from each of the sieves was recorded, along with information regarding the colour(s) of the burnt bone for each deposit, and the maximum post-excavation fragment size (Appendix 10).

The cremation-related deposits varied significantly in the amount of bone recovered, with 89g of bone in deposit 864, 806g from deposit 575 and a total of 746.5g of bone from the three contexts associated with urn 605 (fill numbers 660, 668, 1180). The bone from each of these latter contexts has been weighed, measured and analysed separately, but the information has been combined to give a more accurate reflection of the bone that was deposited in 605. During analysis, it was also observed that the bone recovered from 1112 (1181) was covered in a hardened concretion that could not be removed from the small fragments of burnt bone. As a result, the recorded weights from these spits do not accurately represent the amount of burnt bone present.

The overall preservation of the bone is generally fair. The majority of fragments demonstrate dense textures, although, varying degrees of fragmentation are present. The surface preservation of the cortical bone is also fair, with many pieces displaying areas of surface erosion.

The amount of fragmentation also differs between contexts (Appendix 10). The bone from 540 (575) was well preserved, with a substantial amount of bone measuring 10mm or greater (68.0% of the total weight of bone recovered). A midshaft portion of an unsided humerus measured 90.2mm in length, and the largest piece of cranial vault measured 40.5mm. In contrast, a non-descript long bone shaft fragment from cremation pit (864) measured a maximum of 34.5mm.

The bone from each context is uniform in colour, with all fragments displaying a buff colour. Variations in colour of burnt bone reflects the degree of oxidation of the organic components within the bone. The level of oxidation of bone relies on factors such as the quantity of fuel used to build the pyre, the temperate attained in various parts of the pyre, length of time over which the cremation was undertaken and the oxidising/reducing conditions in various parts of the pyre (McKinley 2004:11). Holden *et al.* (1995a, b) suggest that temperatures above 600^{o} C are required to fully oxidize the organic components and produce buff or white bone, as observed in these contexts.

Osteological Analysis

All pieces of bone have been subjected to osteological analysis following the procedures suggested by McKinley (2000) and Brickley and McKinley (2004). Initial osteological analysis divides fragments into five main areas of the body: cranial, axial, upper limb, lower limb and non-descript long bone (unidentifiable to specific limb). A more detailed identification of fragments to specific skeletal element and side has also been attempted, where possible. The most frequently preserved fragments in the deposits are pieces of cranial vault, and midshaft portions of upper and lower limbs. Few identifiable pieces of tooth crowns, vertebrae (cervical and thoracic), and pelvis are also present. The majority of pieces analysed are non-descript in appearance and have not able to be allocated to specific skeletal element.

The lack of element duplication in deposits 575 and 864 suggests the remains of only one individual are present in each context. Differing stages of skeletal development were observed in urn 605, with the majority of remains likely originating from an adult individual. A single, small fragment of right temporal bone of a baby was also identified. It was not possible to determine the age of the infant, whether foetal, neonate, or infant. Assessments of skeletal age and sex were limited by the availability of necessary fragments in each deposit. Summary of osteological findings are provided in the catalogue of contexts containing burnt bone, below.

Catalogue of contexts containing burnt bone:

Pit 540 (575)

The human remains recovered from pit 540 are likely of an older adult individual (46+ years), who was possibly male. A total of 806g of buff coloured bone was present for analysis. The overall fragment size was excellent, with 68.0% of the small assemblage measuring over 10mm in size. Maximum lengths of 90.2mm was recorded for a

humerus shaft and 40.5mm for a cranial vault fragment. This generally large fragment size permitted the identification of the majority of elements present, which represented the majority of skeletal regions (cranial vault, spine, upper and lower limbs). The long bone shaft fragments were generally robust in appearance with strong muscle attachments. A tentative sex determination of possibly male was made due to the appearance of the right mastoid process. An age of "older adult, 46+years" was suggested by the presence of marginal osteophytic lipping on small portions of vertebral bodies present within the assemblage. No other pathological conditions were able to be identified beyond the presence of spinal degenerative joint disease (osteophytes).

Urned cremation burial 605 (660, 668, 1180)

The burnt bone associated with the cremation urn in 605 was recovered in three different deposits, on-site as 660 and 668, and then during post-excavation processing, when the internal fills of the urn were excavated in six 0.05m spits (1180). A total of 746.5g of bone was present for analysis. The largest pieces of bone were in 668, with maximum post-excavation fragment sizes of 28.9mm recorded for a piece of cranial vault, and 49.9mm for a portion of non-descript long bone shaft fragment. Such large fragment sizes were not shared by the bone recovered from deposits 660 and 1180.

The presence of more than one individual is established by the presence of not only adult remains, but also of an infant (a small portion of a right infant temporal bone). It was not possible to determine the age of the infant, whether the baby had died before or after birth.

Assessments of sex and age at death of the adult remains were made based on the overall appearance of the fragments present, which were generally gracile. The pinched appearance of the trochlea of a distal humerus was recovered from spit 1 of (1180), and suggested the individual was possibly female, following criteria by Rogers (1999) and Falys *et al.* (2005). An age at death could not be determined with any certainty beyond the individual was adult (i.e. aged 20+ years).

Pit 739 (864)

Deposit (864) was excavated in a series of three 0.05m thick spits. Just 89g of largely non-descript buff-coloured long bone shaft fragments was present for analysis. A great deal of fragmentation was noted, as just over half of the bone measured less than 5mm. Few cranial fragments and the base of a first metacarpal were present in spit 2. It was not possible to suggest an age or sex of the individual(s) represented by the highly fragmented bone.

Pit 1112 (1181)

The bone from 1112 (1181) was whole-earth excavated in a series of three, 0.02m thick spits. At the time of analysis, the burnt bone was covered in a hardened concretion that masked much of the surface features of the burnt bone present, and limited the analysis of the remains. The bone present for analysis weighed a total of 304.5g, however, this figure included in this weight is the concretion, which significantly increased the actual weight of

bone present. Post-excavation fragment size was found to be 22.1mm for a segment of long bone shaft. Identified fragments include small pieces of cranial vault, tooth crown and root, and a zygomatic arch. It was not possible to suggest an age or sex for the individual.

In summary, four features within the investigated area contained burnt human bone. These included urned burial 605 (660, 668, 1180), and three unurned burials 540, 739 and 1112. Osteological analysis has revealed the interred individuals were of both sex, and a range of ages, including an adult woman and an infant buried in urn (605), and a probable man of advancing age (aged 46+ years) in (540 (575). Unfortunately, due to the limited amount of bone present for analysis, it was not possible to identify any demographic or pathological information for the human remains recovered from 739 (864) or 1112 (1181).

The Animal Bone by Ceri Falys

A small assemblage of animal bone was recovered from 12 contexts within the investigated area. A total of 80 fragments of non-human bone were present for analysis, weighing 1263g (Appendix 11). This total weight is not completely representative of the amount of bone present, as the remains from pit 639 (751) are covered with a hardened concretion, ultimately significantly increasing the apparent weight of the remains. The overall preservation of the remains was poor, as a high degree of fragmentation is present, however, the surface preservation was generally good.

Initial analyses roughly sorted elements based on size, not by species, into one of three categories: “large”, “medium”, and “small”. Horse and cow are represented by the large size category, sheep/goat, deer and pigs are represented in the medium size category, and no smaller animal (e.g. dog, cat etc.) was identified. Wherever possible, a more specific identification to species and side of origin has been made. Teeth were commonly much better preserved than the postcranial elements, and permitted much of the species identification. Long bone shaft fragments were frequently too small and non-descript to accurately suggest the size animal of origin.

The minimum number of animals present in this small assemblage has been estimated to be three: one each of horse, cow and sheep/goat. Teeth acted as the primary evidence of the presence of a horse, from pits 639 (751) and 702 (776). The presence of a minimum of one cow was identified by teeth in ditch 707 (781) and SFB 910 (1064). Finally, two features contained sheep/goat sized teeth, 911 (1065) and 913 (1067). No further information could be derived from the small assemblage of non-human bone.

Burnt animal bone in pit 511 (562)

A total of 14g of non-human bone was recovered from pit 511 (562), of which 12g was burnt (white in colour) and 2g was unburnt. The maximum fragment sizes recorded were 24.4mm for a burnt long bone shaft fragment, and 22.7mm for an unburnt piece of non-human cranial vault. No further information could be gleaned.

Palaeoenvironmental remains by Rosalind McKenna

A programme of bulk soil sampling was implemented during the excavation, which included the collection of soil samples from 90 sealed contexts. Samples were wet sieved using standard processing techniques. Details of methodology and identification guides used are in the archive. Subsamples from some features (chiefly cremations excavated in spits) were analysed separately but none produced any differential results so these have been combined in the tables.

Charred plant macrofossils were present in 32 samples (Appendix 12). The preservation of the charred remains varied from sample to sample, but generally were poor. Indeterminate cereal grains were recorded in thirty of the samples. These were identified based on their overall size and morphological characteristics, which may suggest a high degree of surface abrasion on the grains, indicative of mechanical disturbances that are common in features such as pits and gullies, where rubbish and waste are frequently discarded. Identified cereal grains were recovered in the form of wheat (*Triticum* sp.) – 1 sample, and barley (*Hordeum* sp.) – 2 samples. These were probable identifications based on overall size and morphological characteristics. Chaff was absent from the samples, which may indicate an absence of crop processing at the site.

Another, more indirect, indicator of cereals being used on site is the number of remains of arable weeds that were found in nine of the samples. These weeds are generally only found in arable fields, and are doubtless incorporated into domestic occupation samples with crop remains. Along with grasses (POACEAE), remains of goosefoot/orache (*Chenopodium/Atriplex*), docks (*Rumex*), and stinking chamomile (*Anthemis cotula*) also fall in this group. All these species would almost certainly have been brought to the site together with harvested cereals.

Vetches/peas were present in four of the samples. However, except in a few cases, these legumes have been poorly preserved and there were no surviving testa or hila. Charred legumes can represent only food waste, as they do not require parching in the processing sequence utilised in their harvest. Therefore, their only contact with a fire would be during food preparation, and/or deposition of used foodstuffs.

Charcoal fragments were present in the majority of the samples, in varying amounts (Appendix 13). The preservation of the charcoal fragments was poor. The majority of the fragments were too small to enable successful fracturing that reveals identifying morphological characteristics. Identifiable remains were however present in 35 samples.

The total range of taxa comprises oak (*Quercus*), willow/poplar (*Salix/Populus*), hazel (*Corylus avellana*), the rose family (ROSACEAE), pine (*Pinus*), and alder (*Alnus*). Oak dominated 26 of the samples, Willow/poplar dominated two samples, hazel dominated two, the rose family dominated four samples and a single samples was dominated by pine. Possible alder / hazel was also recorded in a single sample. Oak is the most frequently recorded charcoal. It is possible that these were the preferred fuel woods obtained from a local environment containing a broader choice of species. A local environment with a relatively wide range of trees and shrubs is indicated from the charcoal of the site.

Radiocarbon dating

Two samples of organic residues on Saxon pottery sherds, and one of charcoal from cremation pit 605, were submitted to the Chrono radiocarbon dating laboratory at the Queen's University, Belfast for AMS dating. Details of methodology are in the archive; in summary the lab considered the results reliable. One of the food residue samples was from SFB 1014 and the other from midden or SFB 991. The results are detailed in Appendix 14. The laboratory calibrated the results with CALIB rev 7 (to be used in conjunction with Stuiver and Reimer 1993, with data from IntCal 13.14c (Reimer *et al*. 2013)). The probabilities are expressed as relative area under the curve at 2-sigma (95.4% confidence). The graphical representation in Charts 1 and 2 uses OxCal 4.3.2 (Bronk Ramsey 2017). The two calibration programmes provide results that differ only by a couple of years. Both food residue results fall firmly into the early Saxon period, as expected, and appear to be contemporary, albeit they both span a range of 150 years. The charcoal sample from the cremation produced a later Bronze Age date, perhaps towards the early end of the range expected from the ceramics, but not implausibly so.

Conclusion

The third phase of archaeological excavation at East Hall Lane Quarry, Wennington, Rainham, revealed a moderate density of features dating from the Bronze Age to the Post-Medieval period. However, one period, the Mesolithic, is represented by flint artefacts, but no cut features. It is considered that a small Mesolithic occupation site is represented by elements of the lithic collection, but now dispersed by ploughing in Bronze Age and later times.

Cremation burial 605 may be among the earliest features on the site. Ring ditch 1024, the remains of a ploughed-out barrow, is probably earlier, and pit 511 probably later, dating from the transition from late Bronze Age to early Iron Age, probably around the 8th century BC. There was no obvious primary burial within the ring ditch, nor any sign that it has been re-used for secondary burials as is often the case, but pit 826, centrally in the interior might originally have held an inhumation whose bones simply did not survive. Pit 511 contained over 200 sherds of pottery from multiple vessels, and fragments of numerous loomweights, along with a little animal bone

and burnt flint. This does not appear to be routine dumping of domestic refuse, but nor was the deposit an obviously 'structured' one (for example, carefully placed, or associated with a complete animal carcass) as is sometimes the case. Perhaps oddly, there was no stuck flint in the pit.

The dating of several ditches to this same LBA/EIA period is very tentative, based often on very few sherds of pottery and assumptions that parallel features are related. Only ditch 1025, close to the barrow is convincingly of this phase, but it is contended that other ditches (1022 to the north-east; 1033 to the north-west, and some or all of 1027, 1030, 1041 and even less convincingly 1026 to the south-west) might be. If so, these could be marking out a large area around the barrow/ring ditch.

One urned cremation is positively identified as being of this phase, and three unurned examples are discussed as also of this phase, if only for simplicity. Very little bone was deposited in the unurned examples, but urned burial 605 contained substantial remains of an adult female and one piece of infant cranium. The exterior fill of the urned cremation contained charcoal radiocarbon dated to 1299–1122 cal BC, more clearly Later Bronze Age than early Iron Age, but the urn itself has some earlier traits, so such a date is in keeping with that, and this may be one of the earliest features on the site. One of the unurned burials was that of an older adult male. No other demographic information was forthcoming. Charcoal from the urned burial included some of Rose family wood, not a regular occurrence as oak is almost always more usual for pyres in southern England in most periods, often combined with a smaller wood as kindling, but possibly reflecting the local environment. The only other features on the site to have contained rose wood charcoal was Saxon.

Three, possibly four, regular rectangular or square post-built structures are also tentatively assigned to this phase. They are of a form commonly interpreted as raised granaries, although other functions might be suggested. The three certain examples lie close together, south-east of the barrow, with a fourth less confidently identified, isolated to the west.

The site then sees no new activity (at least that left any below-ground trace) through the rest of the first millennium BC.

It is doubtful if there is a Late Iron Age phase in this area (as there was in previous work at the site), as almost all of small collection of pottery of this period is in later features. Likewise there is no early Roman occupation and late Roman pottery is almost all from Saxon features. At most one or two pits belong to each of these phases and their finds as so scanty as to make it highly probable they are also really in later deposits.

Occupation recommences in the Saxon period with at least one and probably two sunken-featured buildings towards the eastern side of the area, and a small ditched enclosure in the north-east corner. This would be a fairly typical layout for the period, of isolated or widely spaced buildings, occupation sites often sprawling over several hectares (as at Mucking, Essex for example: Hamerow 1993). The sunken featured buildings (SFB) were both also

fairly standard shallow hollows (Tipper 2004), one with two end post holes and the other, less certainly identified, apparently lacking these. Radiocarbon dates from these are practically identical and belong to the very start of the Anglo-Saxon settlement of England (Appendix 14).

The major landscape features from this phase of work were NW–SE and NE–SW aligned ditches extending the full length and width of the site. These were most probably laid out in the Medieval period and at least one of them remained open into late post-medieval times (18th century), and may have formed the basic pattern for fields in this area right up to the present.

Finds other than pottery were not plentiful, with the exception of numerous loomweights in the Late Bronze Age/early Iron Age pit, indicating textile production on a vertical loom.

Economic and environmental data for all periods were very sparse, allowing little scope for assessing the lifestyle of the occupants, except to note that cereal grains were present in all phases although wheat and barley were only positively identified in one medieval pit (and one undated).

None of the features revealed in this phase of work had any connection to any of those from earlier phases, and indeed the dating profile of features on this area was starkly different from the other phases, except that all have so far had some late Bronze Age component.

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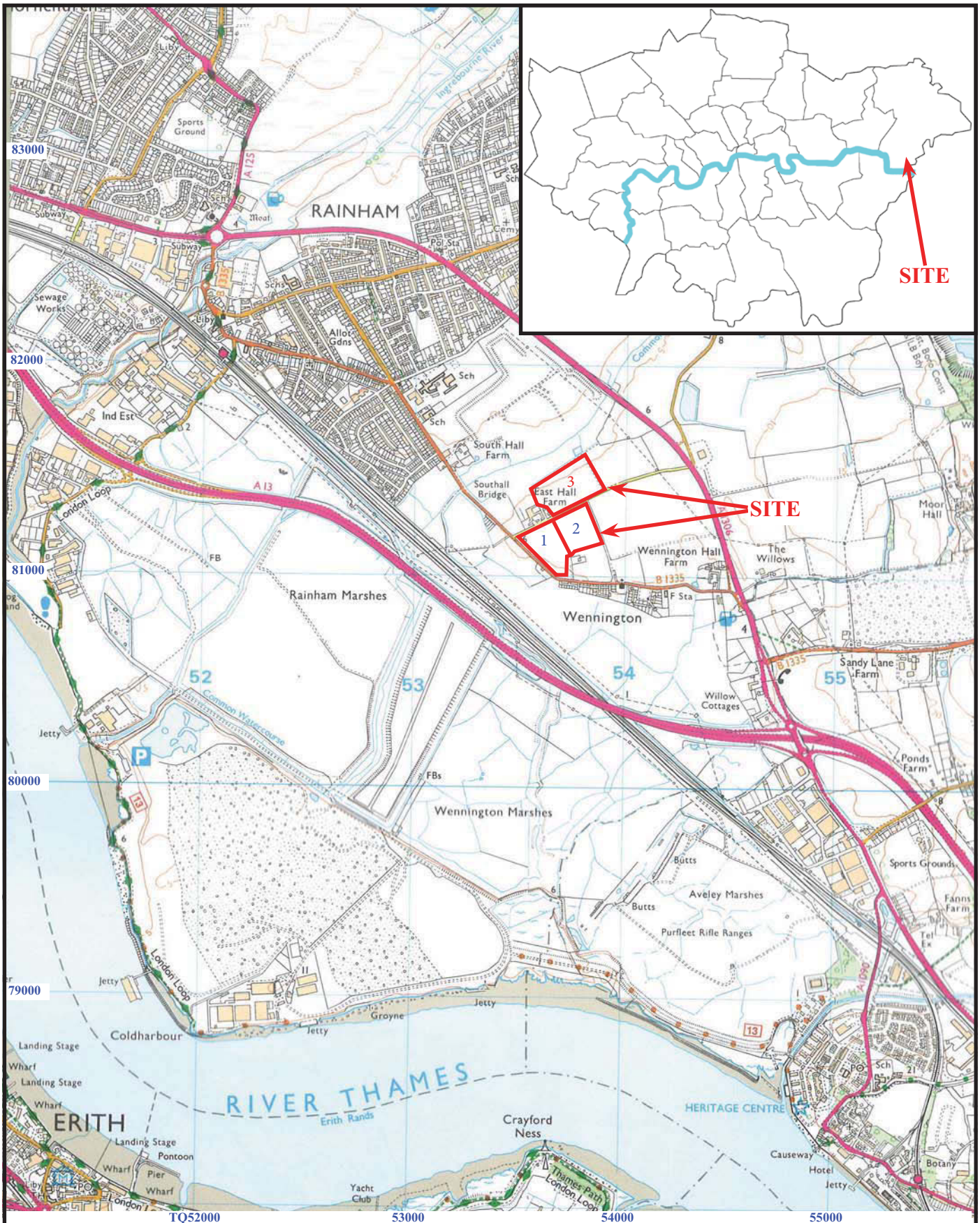

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East Hall Farm, Wennington, Rainham,
London Borough of Havering
Archaeological Recording Action, Phase 3

Figure 1. Location of site within Wennington and London.

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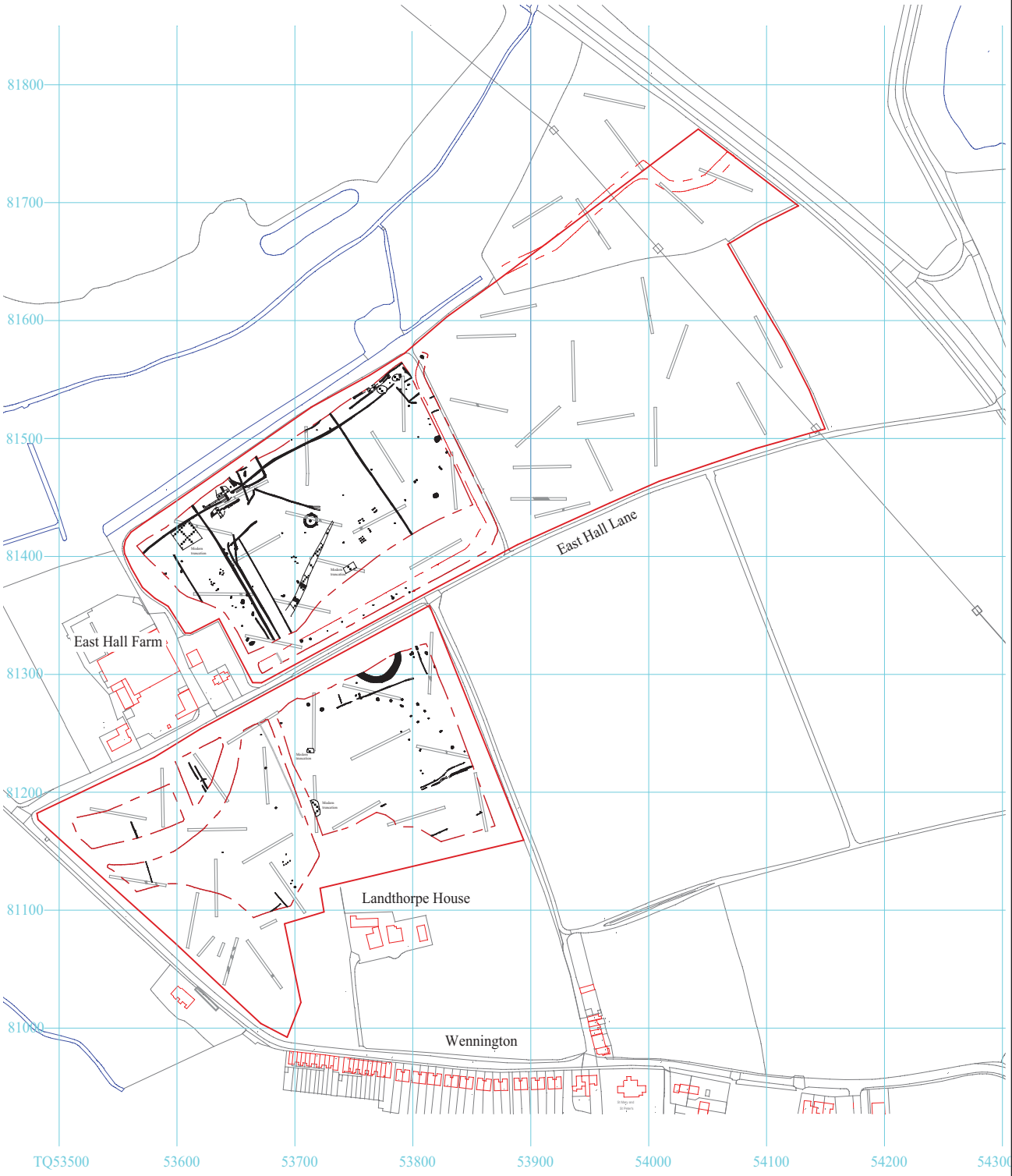

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East Hall Lane Quarry, Wennington, Rainham, Essex, 2018
Archaeological Excavation

Figure 2. Overall site plan

0 100m

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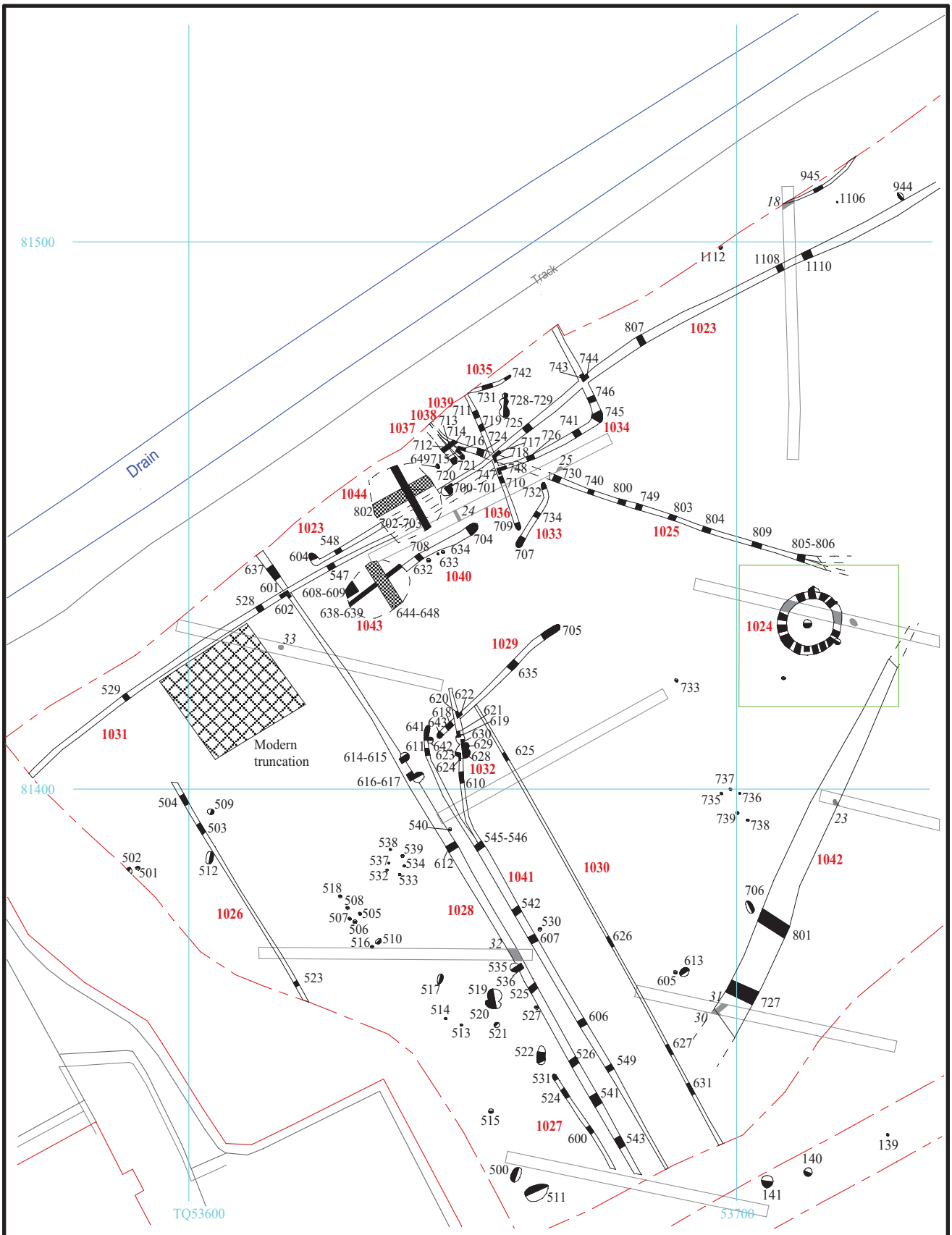

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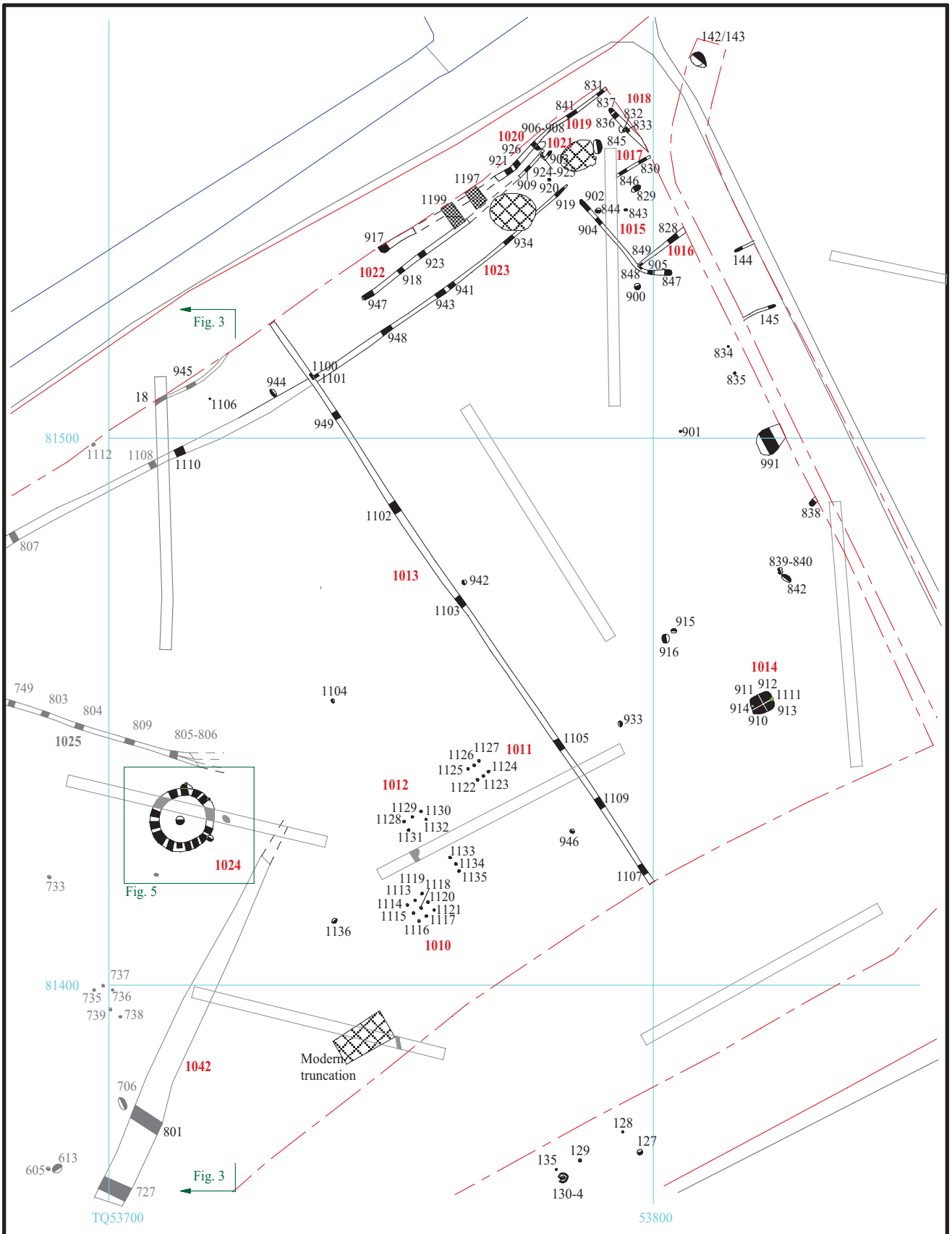
East Hall Lane Quarry, Wennington, Rainham, Essex, 2018
Archaeological Excavation

Figure 3. Detailed plan (SW) showing features and excavated slots.

0 50m

TVAS SOUTH

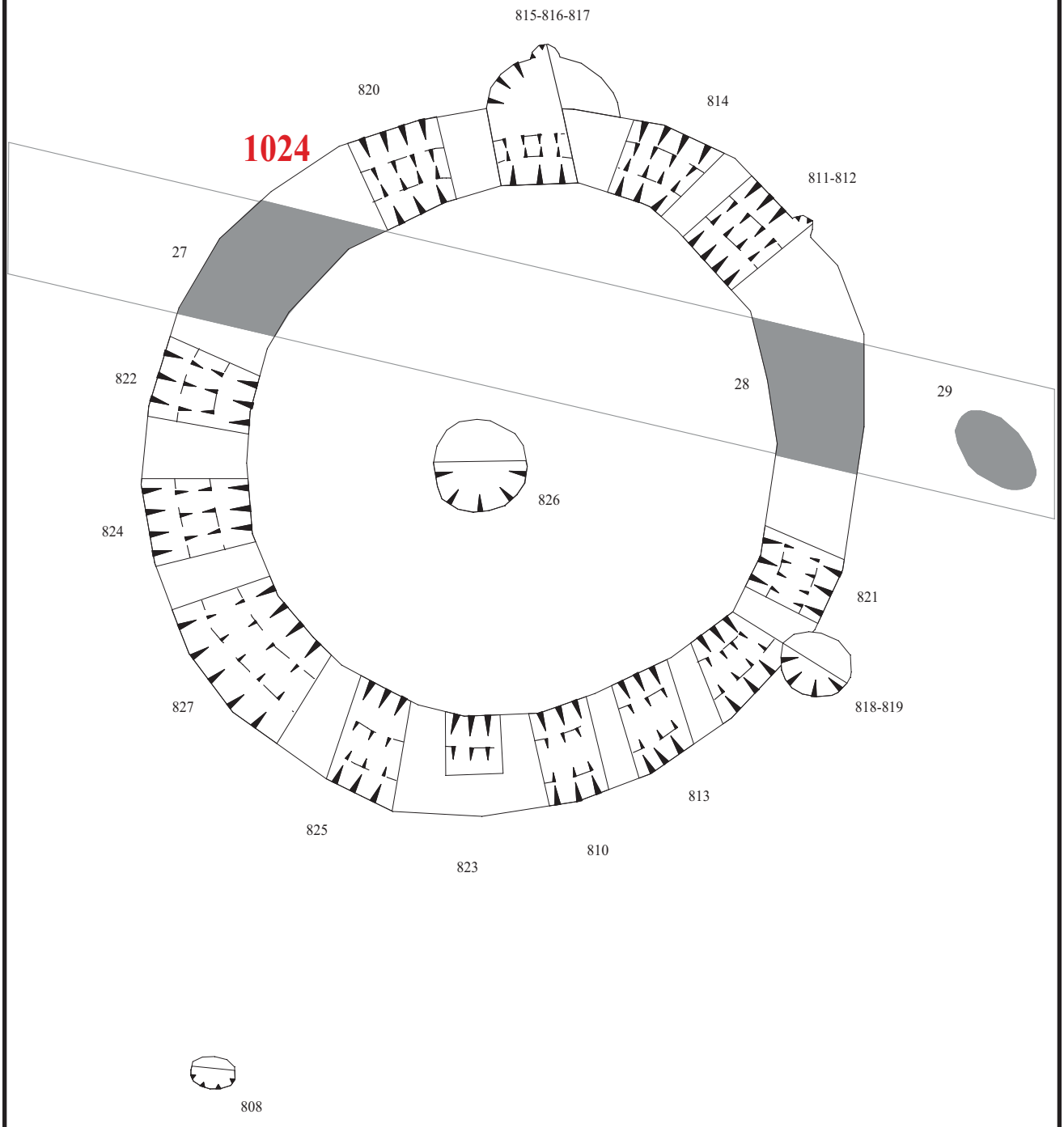


East Hall Lane Quarry, Wennington,
Rainham, Essex, 2018
Archaeological Excavation

Figure 4. Detailed plan (NE) showing features and excavated slots.

0 50m

TVAS SOUTH



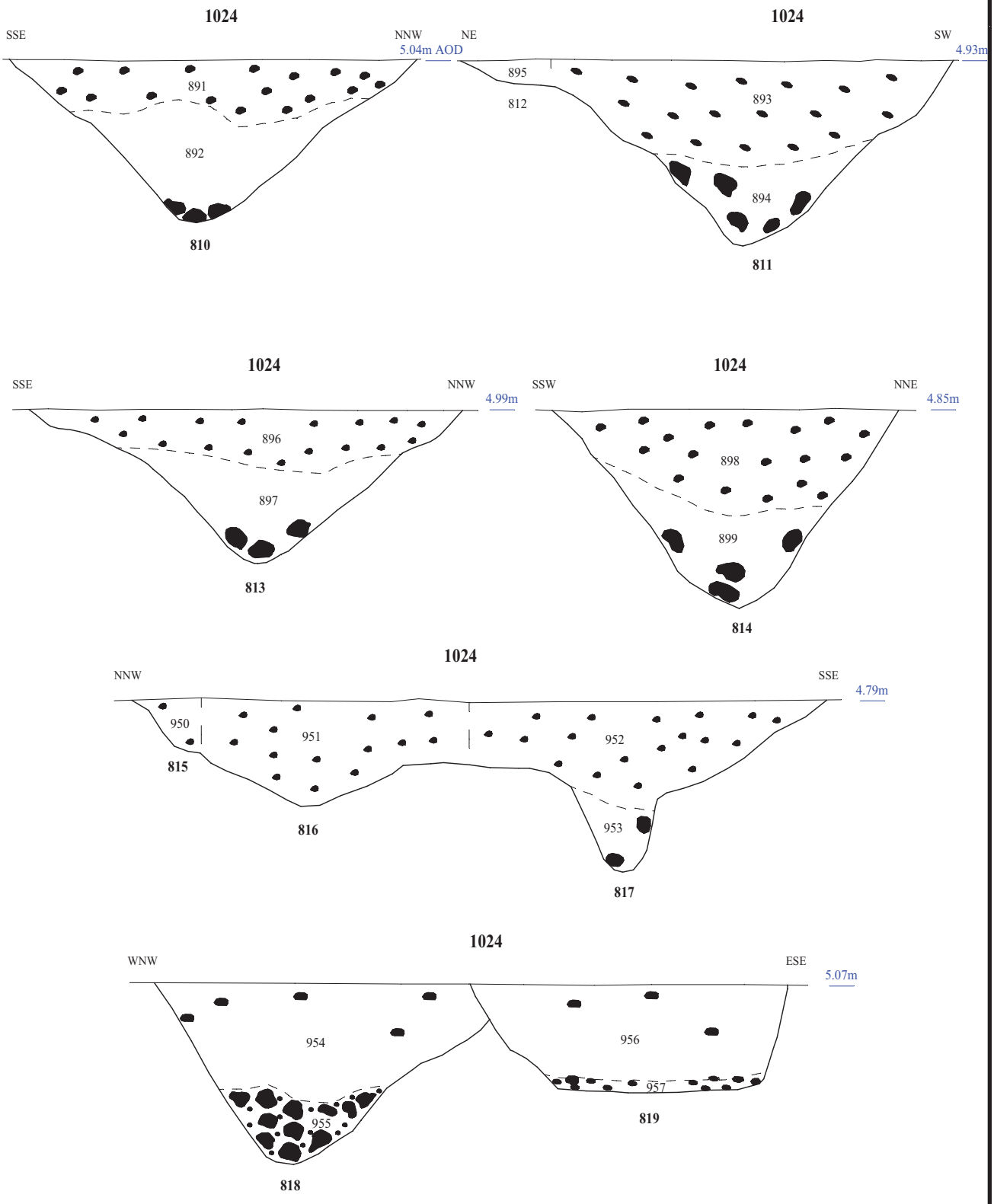
N

East Hall Lane Quarry, Wennington, Rainham, Essex, 2018
Archaeological Excavation

Figure 5. Detailed plan showing ring ditch

0 5m

TVAS SOUTH



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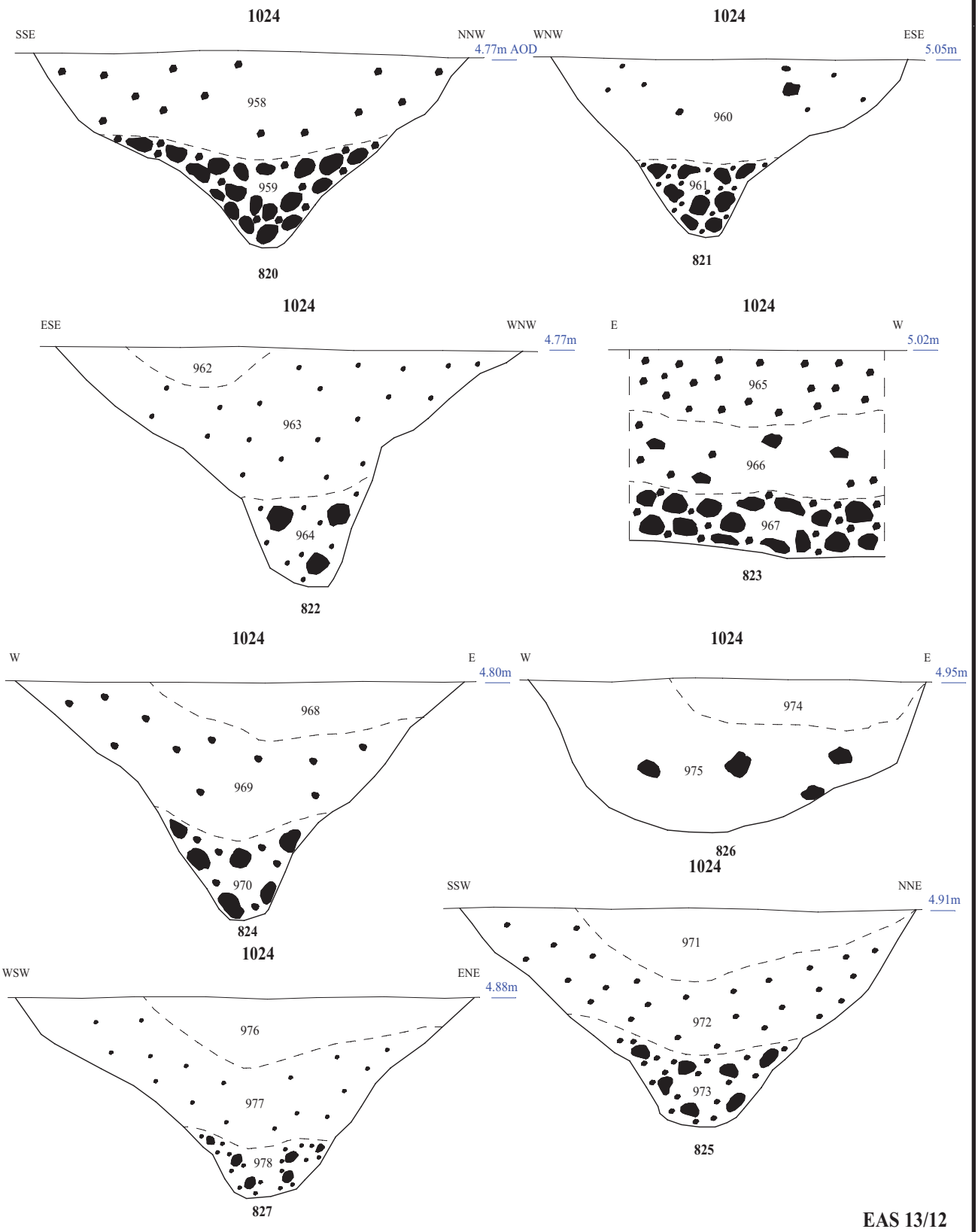
East Hall Farm, Wennington
Rainham, London Borough of Havering, 2018
Archaeological Excavation

Figure 6. Ring Ditch Sections.

TVAS SOUTH

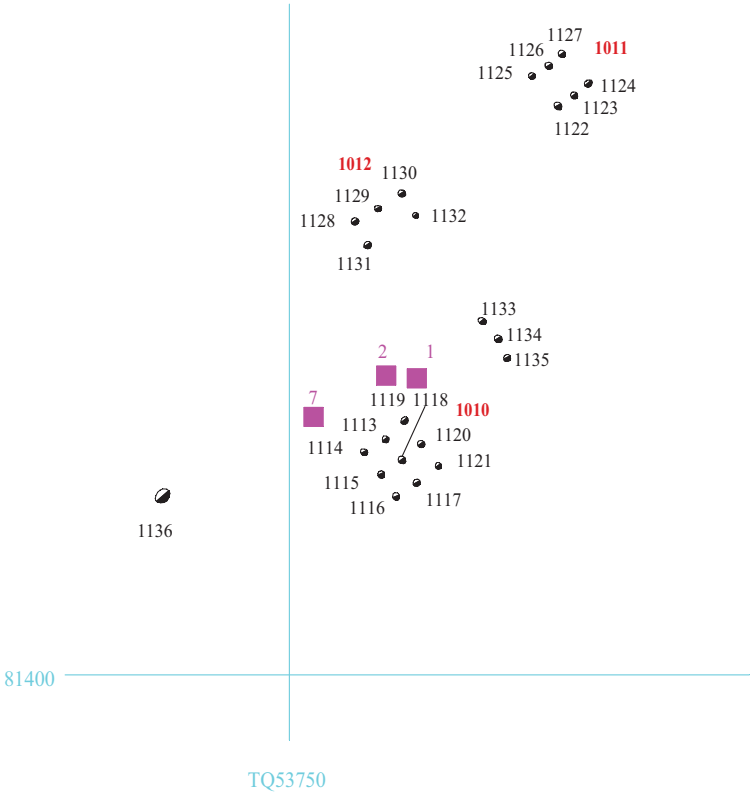


East Hall Farm, Wennington
Rainham, London Borough of Havering, 2018
Archaeological Excavation

Figure 7. Ring Ditch Sections (2).

0 1m

TVAS SOUTH



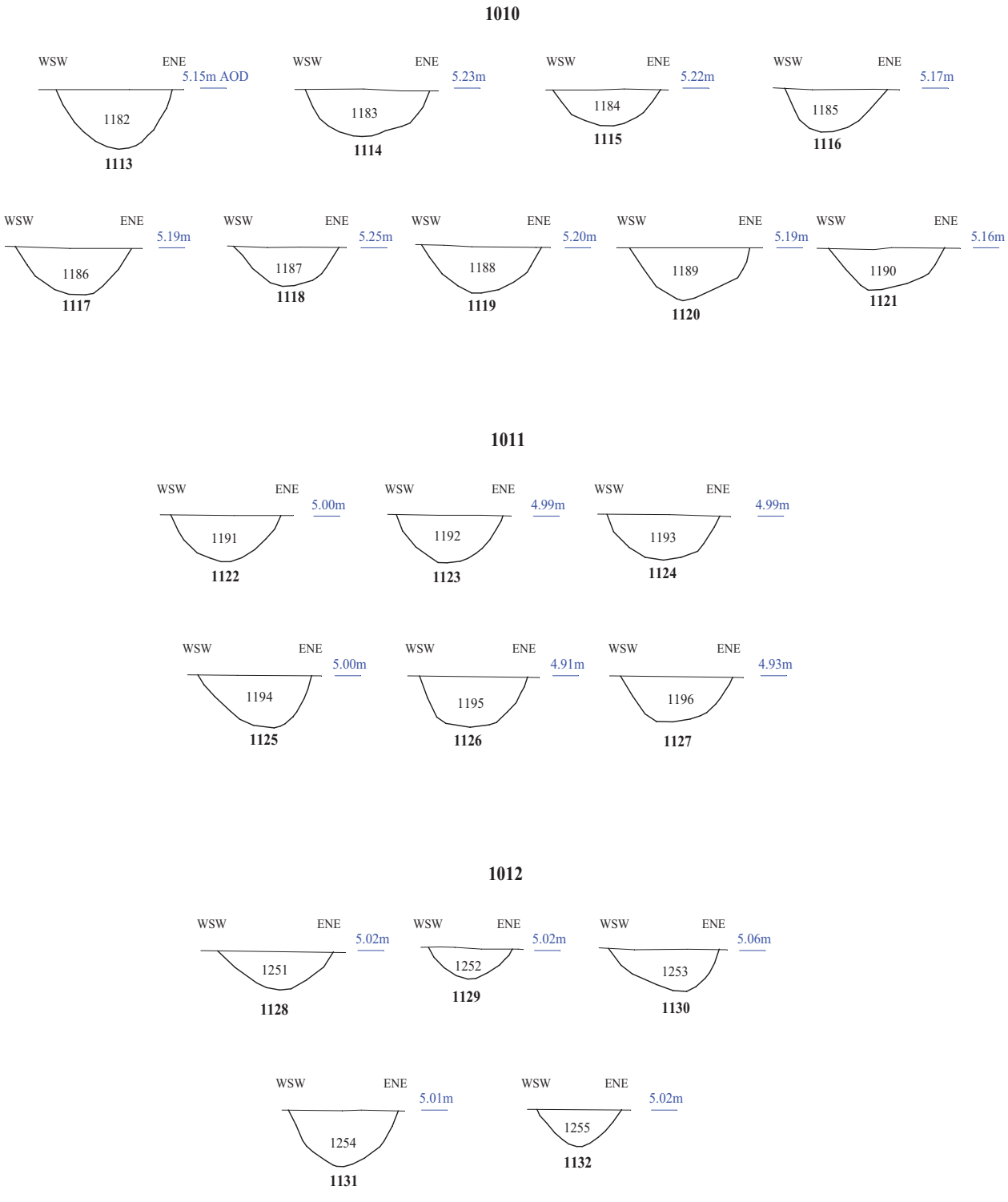
2 LBA/EIA pottery (no sherds)

East Hall Lane Quarry, Wennington, Rainham, Essex, 2018
Archaeological Excavation

Figure 8. Detailed plan of structures 1010, 1011, 1012.

0 25m

TVAS SOUTH



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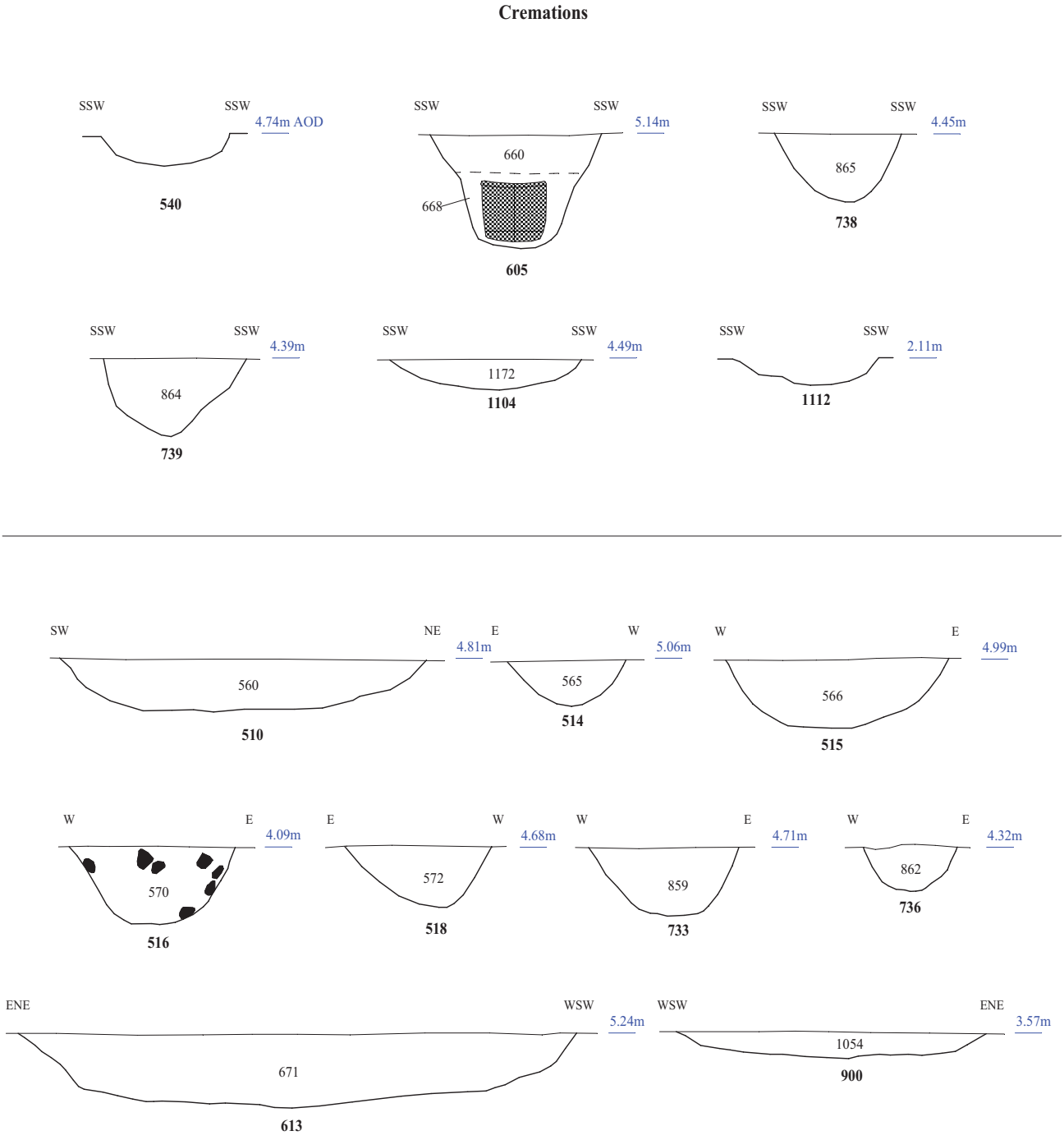
East Hall Farm, Wennington
Rainham, London Borough of Havering, 2018
Archaeological Excavation

Figure 9. Post-structures Sections.

0 1m

TVAS SOUTH



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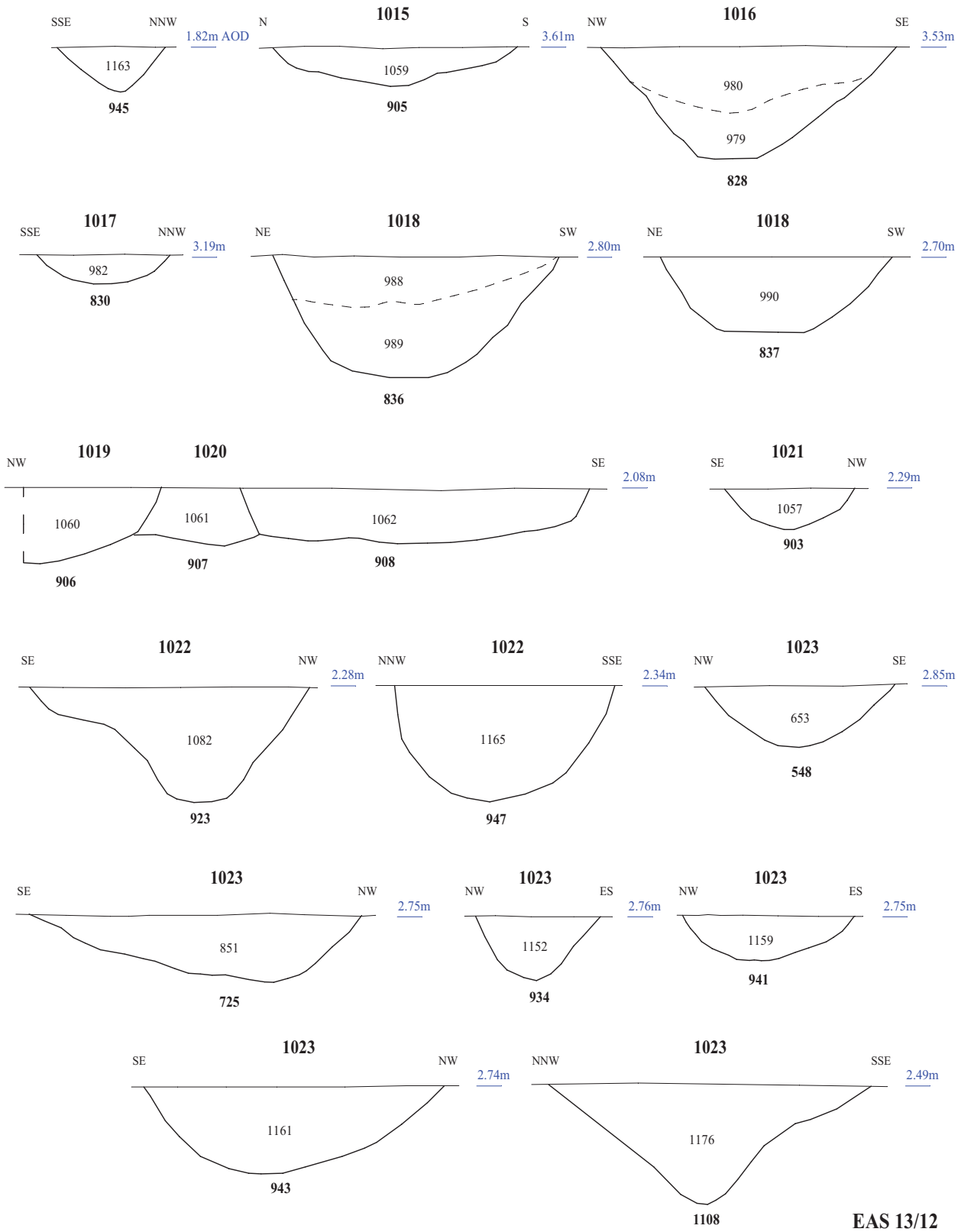
Archaeological Excavation

Figure 10. Sections.

TVAS SOUTH



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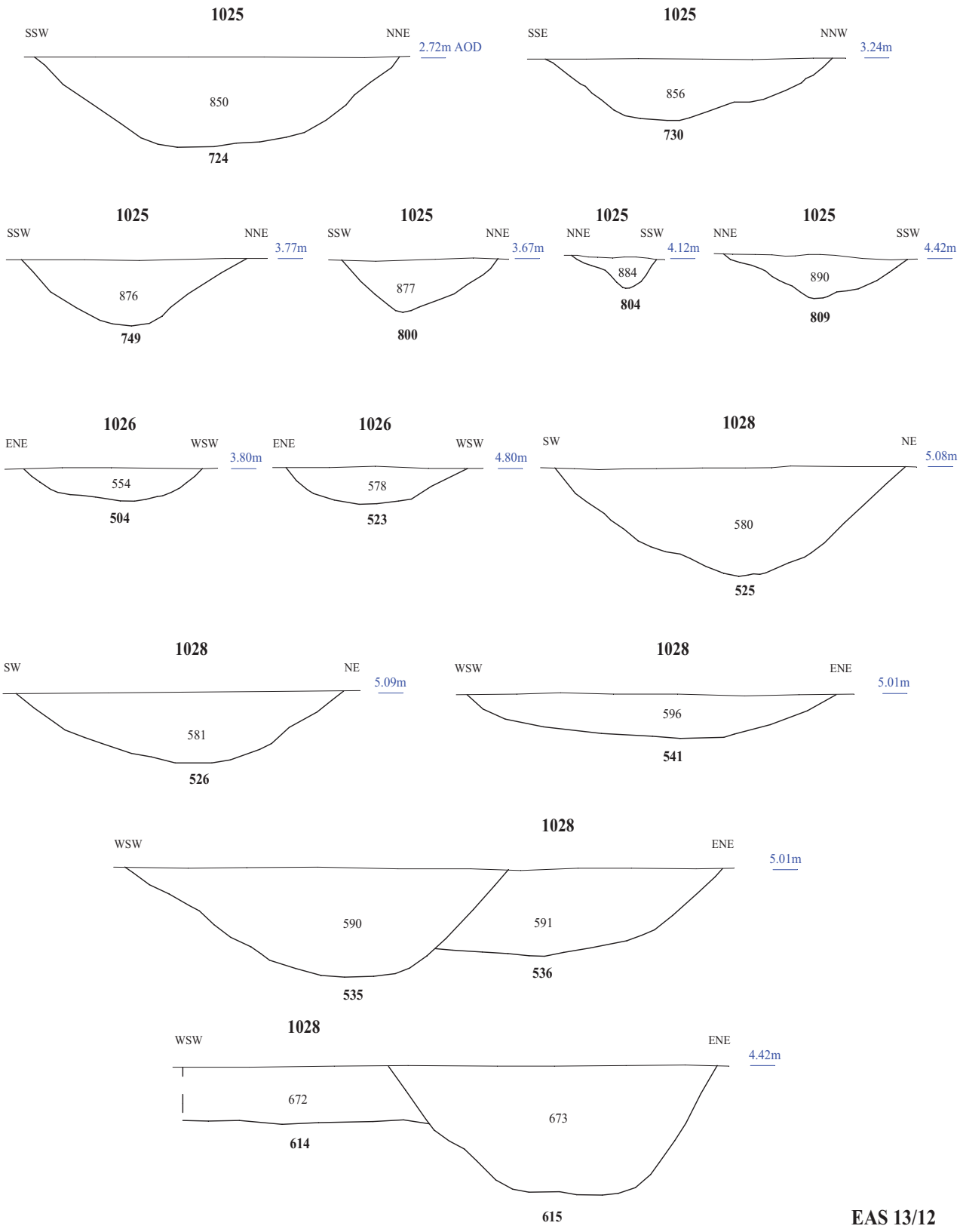
Rainham, London Borough of Havering, 2018
Archaeological Excavation

Figure 11. Sections.

0 1m

TVAS SOUTH



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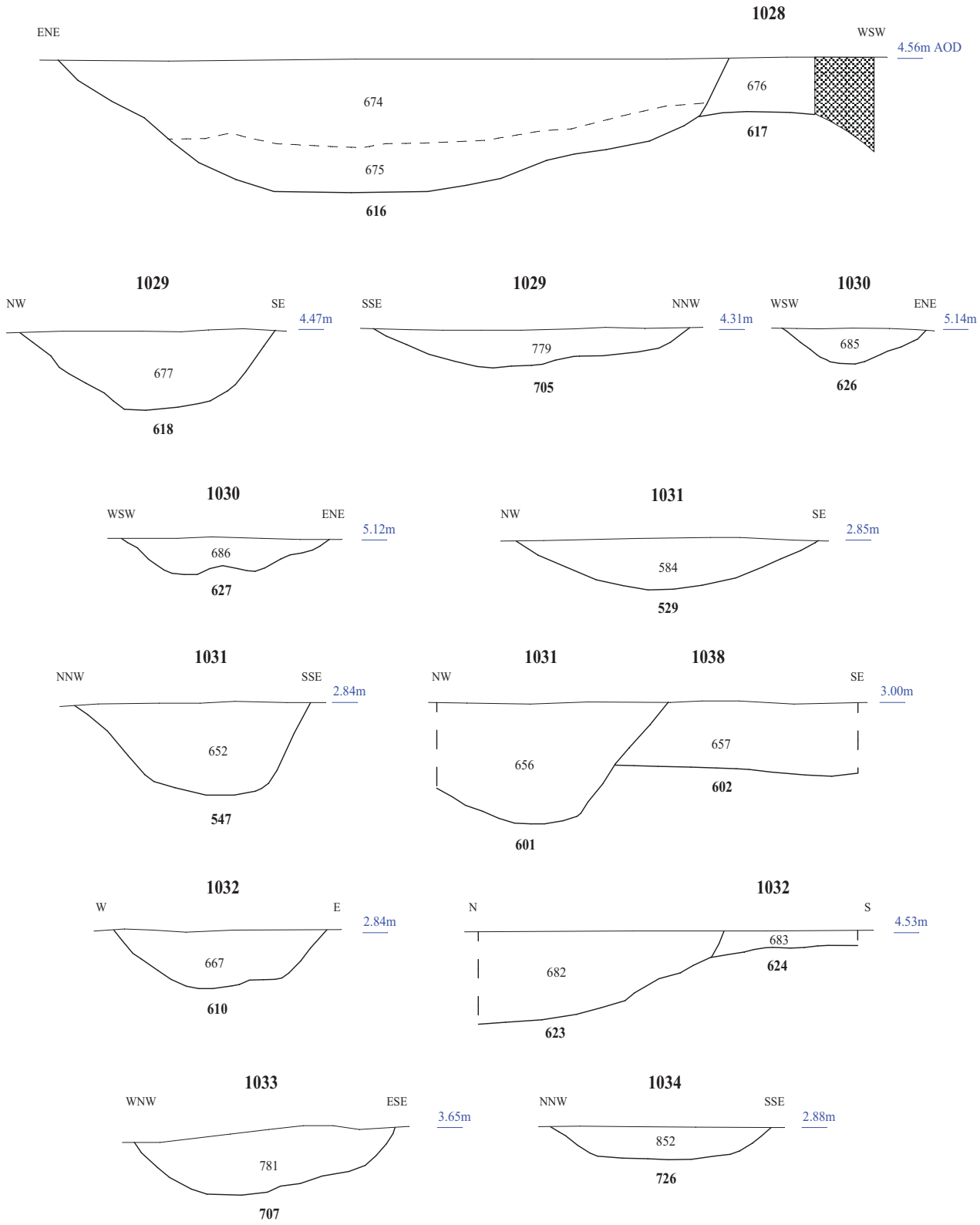
Archaeological Excavation

Figure 12. Sections.

TVAS SOUTH



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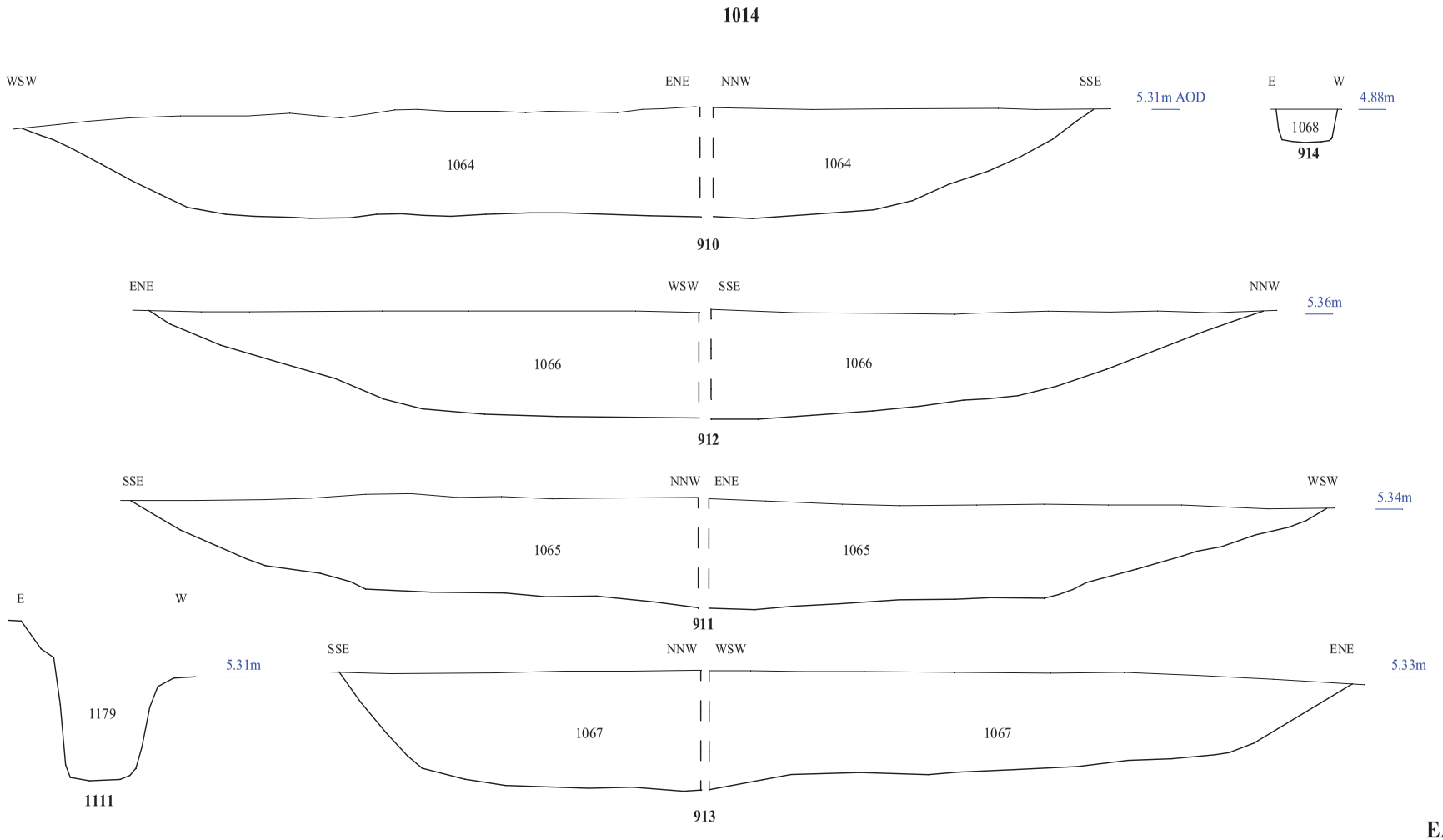
Archaeological Excavation

Figure 13. Sections.

0 1m

TVAS SOUTH



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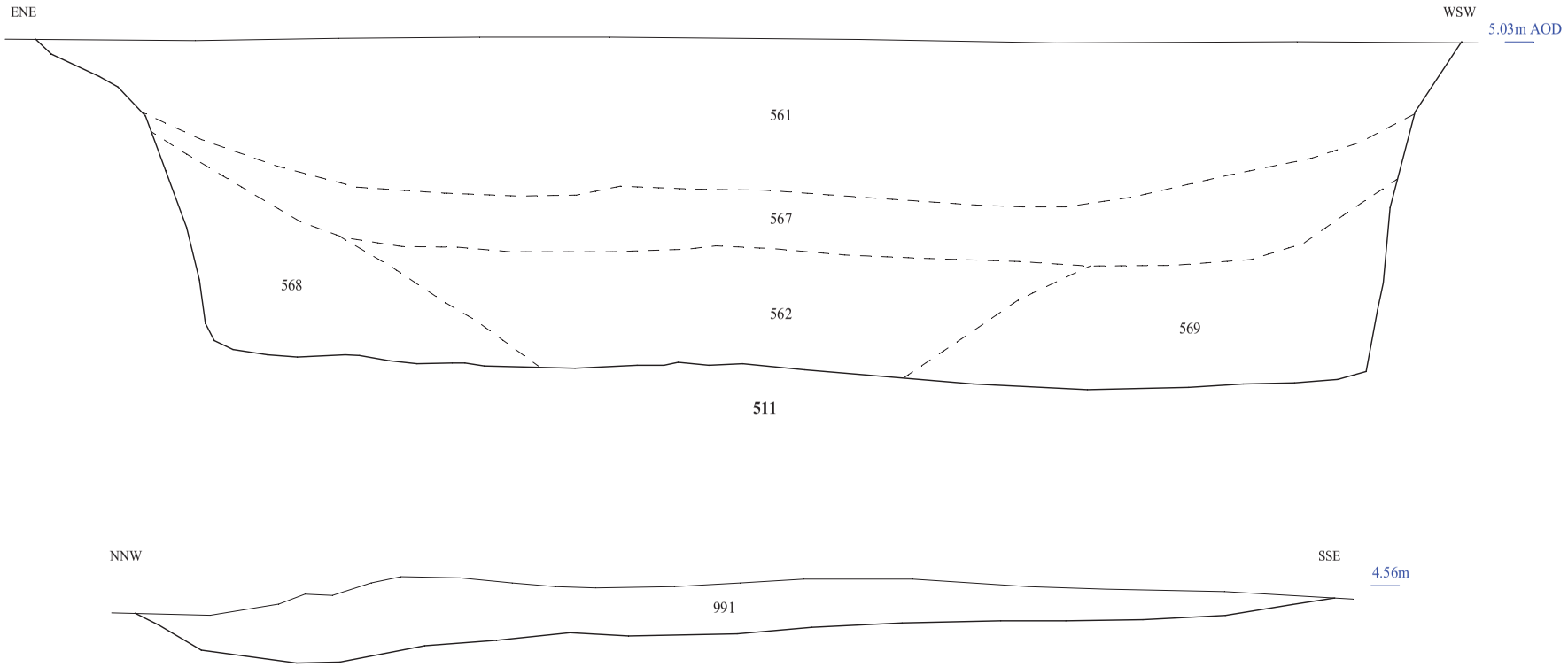
East Hall Lane Quarry, Wennington, Rainham, Essex, 2018 Archaeological Excavation

Figure 14. Sections

0 1m

TVAS SOUTH



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Archaeological Excavation

Figure 15. Sections

0 1m

TVAS SOUTH

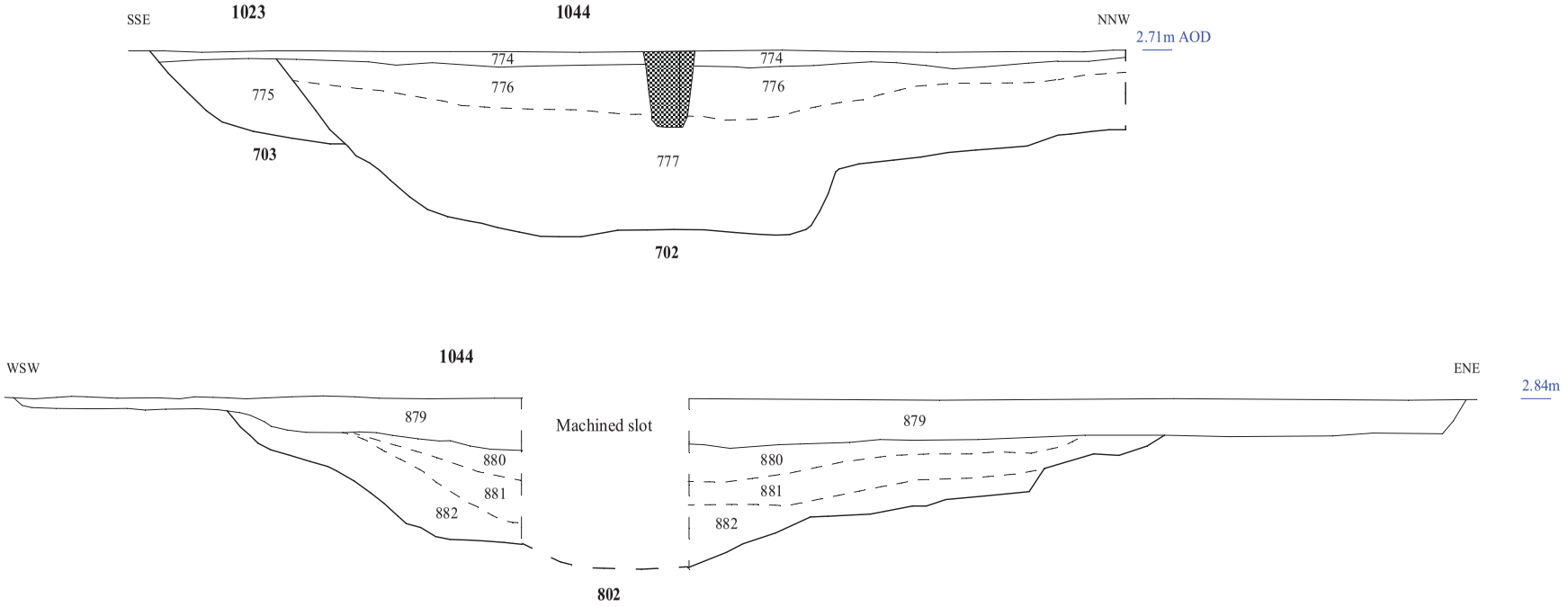

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Figure 16. Sections

0 2.5m

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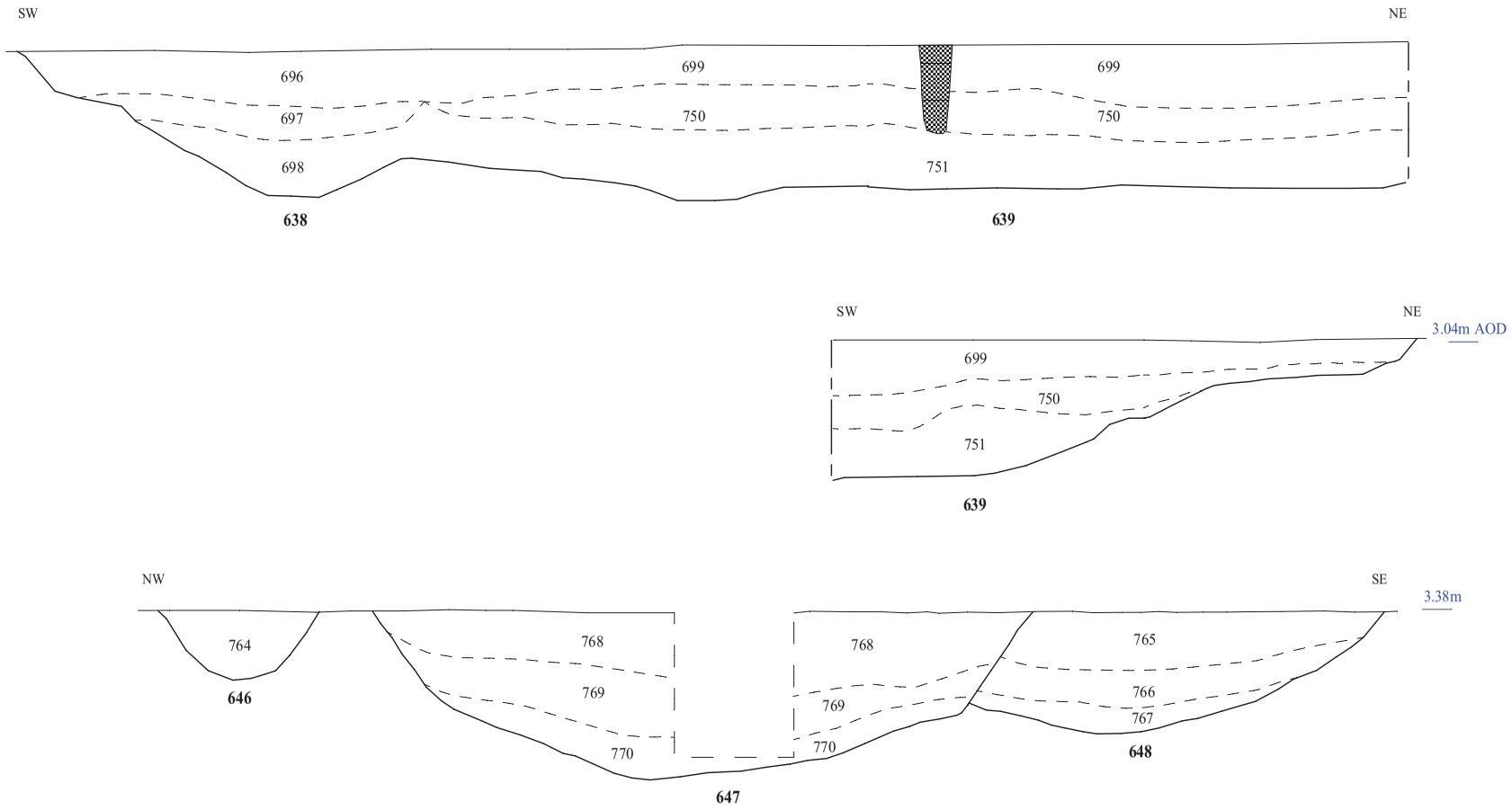

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Figure 17. Sections of quarry 1043

0 2.5m

TVAS SOUTH

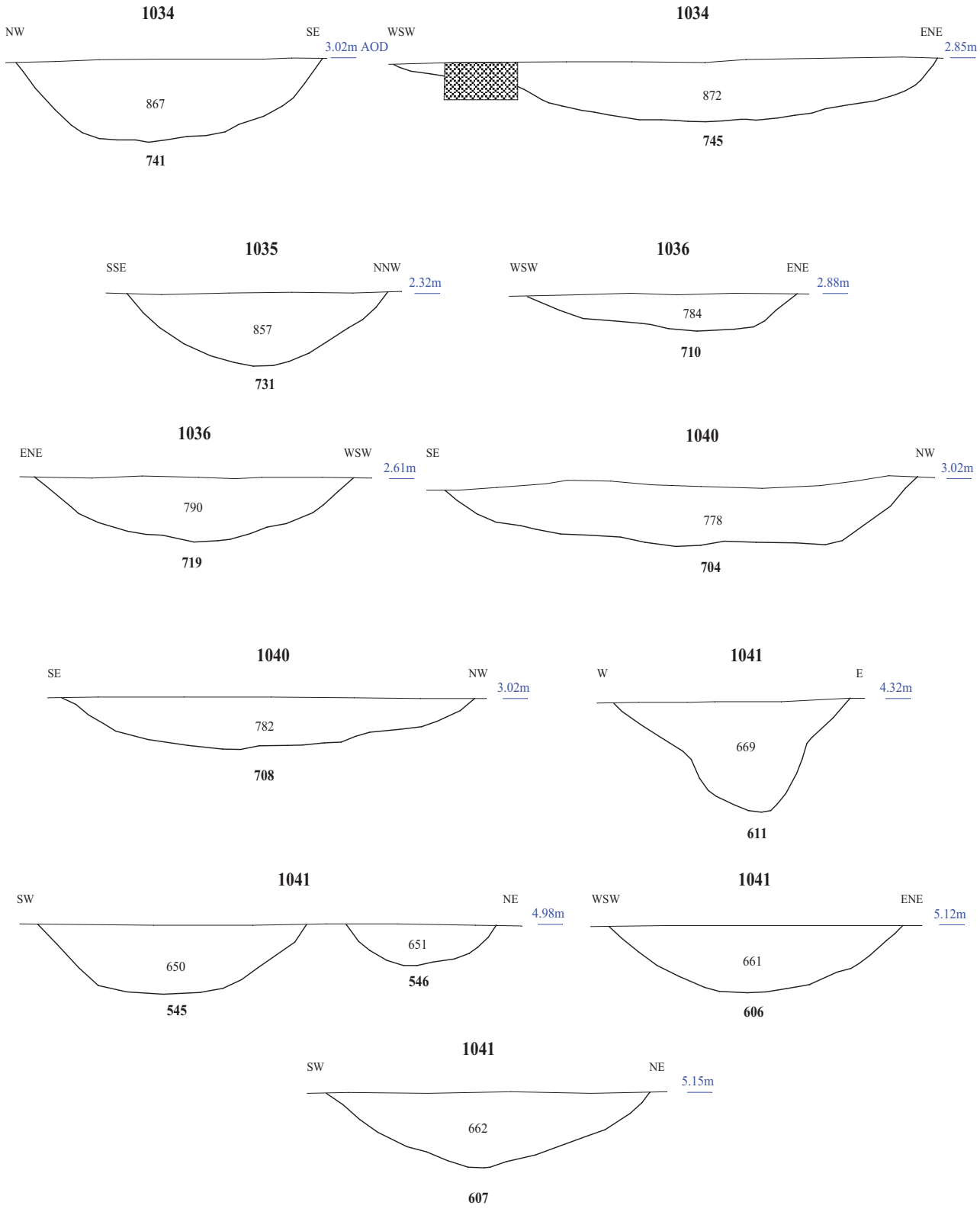

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Figure 18. Sections.

0 1m

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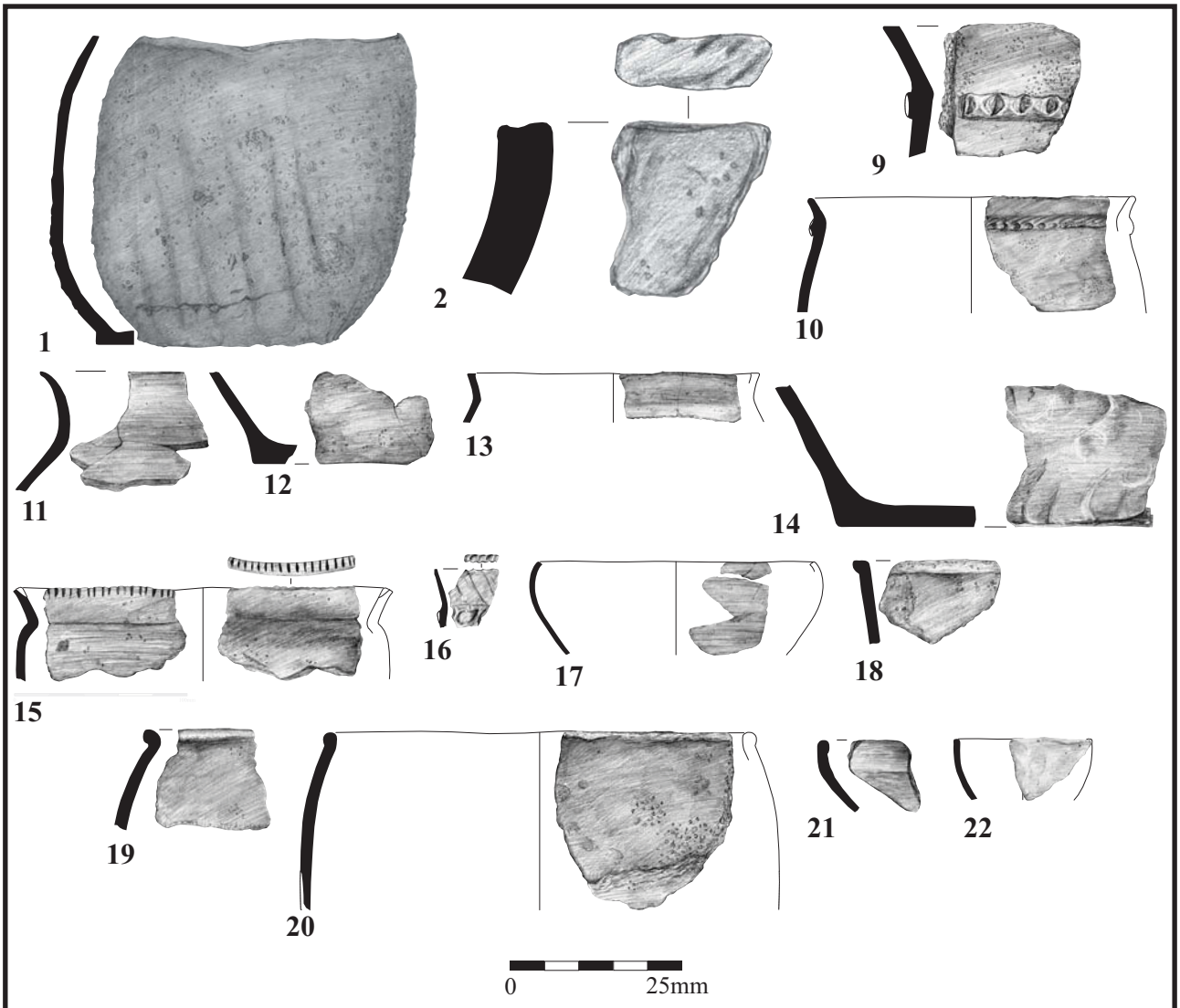

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Figure 19. Prehistoric pottery (see text for details).

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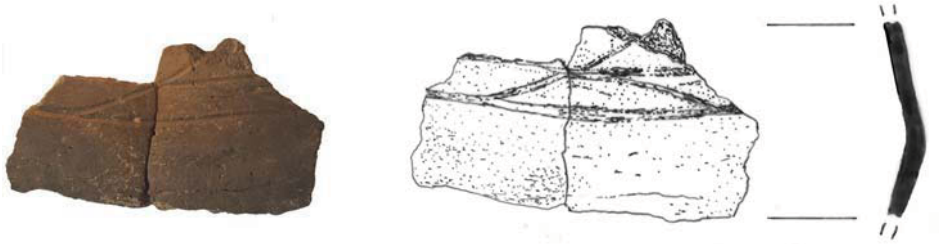
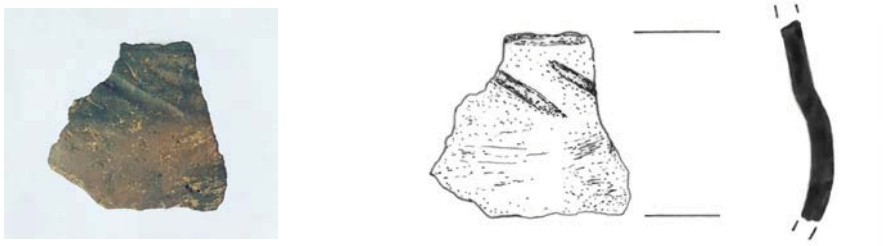
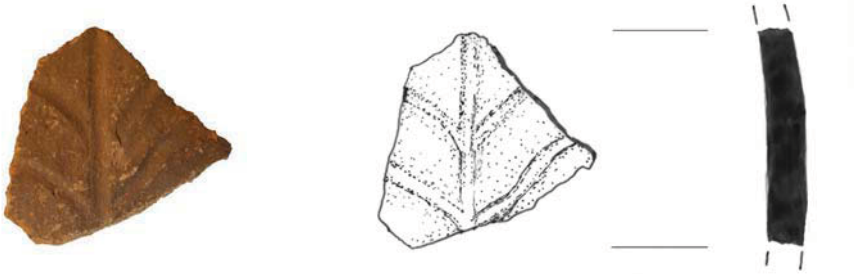


1

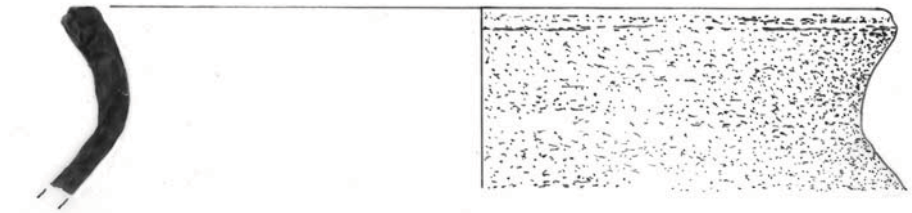


2



3

Early Saxon



4

Late Saxon

0 25mm

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Figure20. Saxon pottery.

Plate 1. Ring Ditch 1024, looking North-west.
Scales: 2m and 1m.

Plate 2. Ring ditch 1024, under excavation,
Drone image.
Scales: 2m and 1m.

Plate 3. Ring ditch 820, looking West.
Scales: 1m and 0.50m.

Plate 4. Ring ditch 822, looking South.
Scales: 1m and 0.50m.

Plate 5. Pit 826, in ring ditch interior, looking
North. Scales: 1m and 0.50m.

Plate 6. Posthole structure 1010, looking North-
east. Scales: 0.50m and 0.10m.

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Archaeological Excavation
Plates 1 to 6.

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Plate 7. Cremation 605, looking East.
Scale: 0.30m.

Plate 8. Cremation 540, looking North-west.
Scale: 0.20m.

Plate 9. Ditch 1041, slot 611, looking North.
Scales: 0.50m and 0.30m.

Plate 10. Ditch 1025, slot 749, looking West.
Scales: 0.50m and 0.10m.

Plate 11. Pit 511, looking North-east.
Scales: 0.50m and 0.20m.

Plate 12. Pit 613, looking South.
Scales: 1m and 0.30m.

East Hall Lane Quarry, Wennington,
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Archaeological Excavation
Plates 7 to 12.

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Plate 13. Pit 515, looking North-west.
Scales: 0.50m and 0.20m.

Plate 14. Pits 519 and 520, looking East.
Scales: 2m, 0.50m and 0.20m.

Plate 15. Possible SFB 991, looking North-east.
Scales: 2m and 0.10m.

Plate 16. SFB 910 and 911,
looking North-east.
Scales: 1m, 1m and 0.30m.

Plate 17. Ditch 1028, slot 526, looking North-west.
Scale: 1m and 0.20m.

Plate 18. Ditch 1031, slot 528, looking North-east.
Scales: 0.50m and 0.20m.

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East Hall Lane Quarry, Wennington,
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Archaeological Excavation
Plates 13 to 18.

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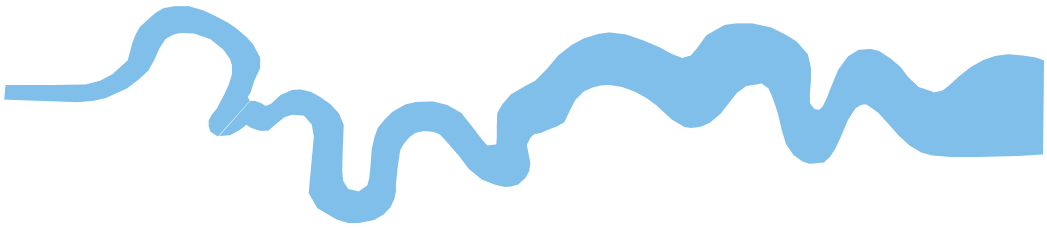
TIME CHART

	Calendar Years
Modern	AD 1901
Victorian	AD 1837
Post Medieval	AD 1500
Medieval	AD 1066
Saxon	AD 410
Roman	AD 43
	AD 0 BC
Iron Age	750 BC
Bronze Age: Late	1300 BC
Bronze Age: Middle	1700 BC
Bronze Age: Early	2100 BC
Neolithic: Late	3300 BC
Neolithic: Early	4300 BC
Mesolithic: Late	6000 BC
Mesolithic: Early	10000 BC
Palaeolithic: Upper	30000 BC
Palaeolithic: Middle	70000 BC
Palaeolithic: Lower	2,000,000 BC



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