

LATER PREHISTORIC REMAINS AND LATE IRON AGE TO EARLY ROMAN ENCLOSURES AT ROXWELL QUARRY

By Mark Germany

with contributions from Lucy Allott, Gemma Ayton, Anna Doherty, Karine Le Hégarat, Hilary Major, Scott Martin, Elke Raemen, Ros Tyrrell, Lucy Sibun and Helen Walker

Archaeological rescue excavation in advance of mineral extraction at Roxwell Quarry revealed multiphase landscape remains. The earliest remains are sparse, but indicate that Late Bronze Age and Middle Iron Age domestic activity and settlement was taking place within the vicinity. The majority of archaeological features comprised two phases of enclosure, dating to the mid 1st century BC to mid 1st century AD and the mid 1st century AD respectively. A Late Iron Age / Early Roman cremation burial, containing three grog-tempered jars, a set of tweezers and a copper-alloy bracelet was also found. A small group of 13th century pits, ditches and pot sherds, and post-medieval to modern field ditches and trackway constitute post-Roman period land use.

INTRODUCTION

Archaeological excavation in advance of mineral extraction within three adjoining areas (1 to 3) at Roxwell Quarry was undertaken by the Essex County Council Field Archaeology Unit in 1998, 1999 and 2000 respectively. The planning consent for the mineral extraction predated the introduction of Planning and Policy Guideline 16 (PPG16) on Archaeology and Planning (DoE 1990), resulting in the excavation of the three areas being carried out under rescue conditions.

BACKGROUND

Roxwell Quarry sits within mostly open, undulating, arable farmland, 1.8 km south of the scheduled site of a large Roman villa complex at Chignall St James (ESM 193) (Fig. 1), and 5km north-west of the Roman town of *Caesaromagus* (present-day Chelmsford). Areas 1 to 3 have a combined area of 5.4ha and occupy a ridge of high ground, overlooking the valley of the River Can to the south and west. The underlying geology consists of chalky till with outwash sands, silts and clays, overlain by 0.3-0.4m of topsoil.

Archaeological excavations south of the villa between 1977-1981 uncovered numerous archaeological remains, including Mesolithic, later Neolithic and Early Bronze Age flint artefacts, and a Middle Iron Age enclosure which was subsequently occupied by a roundhouse during the Late Iron Age (Clarke 1998) (Fig. 1). It is likely that the villa was founded soon after the Roman conquest and was in use until the late 4th century. An important component of its economy was probably stock-keeping, with a focus on cattle. The villa underwent major rebuilding during AD120-245 and a formal defining of its enclosure during c.245-285. A nearby late Roman cemetery contained graves of about twenty-five people, possibly coloni; some of the graves comprised decapitated inhumations.

Topsoil stripping in advance of mineral extraction between Chignall Hall and Stevens Farm in 1986 and 1989 revealed three small, non-adjoining, areas of archaeological remains (Fig. 1). These included a probable 1st century AD round-house in a small enclosure (Bedwin 1987), medieval strip fields, and footings of a 13th century timber building (Brooks 1992).

The topsoil overlying Roxwell Quarry Areas 1 to 3 was poorly removed using a mechanical box-scraper prior to archaeological attendance (Fig. 2). Most poorly stripped were Area 2 and the western half of Area 1, leaving many of their archaeological features either truncated and fragmentary or under-stripped and partially exposed. A large post-medieval or modern disturbance occupied the middle of Area 3 and was probably an in-filled quarry pit (Figs 2 and 6). It was not investigated.

THE SITE

The archaeological features largely comprised ditches accompanied by small numbers of pits and cremation burials, cut into natural, with their upper portions having been lost to plough disturbance; a situation in some cases exacerbated by the aforementioned stripping of Areas 1 to 3 by box scrapers. Most of the features were able to be dated by finds-dating evidence and stratigraphic and spatial relationships, and to be separated into four broad periods, namely later prehistoric, Late Iron Age to Early Roman, medieval and post-medieval to modern. There was no layered stratigraphy, other than topsoil, and the density of the cut features was generally modest, with no area containing particularly complex remains.

Period 1: Later prehistoric

The investigation of the site recovered 916 prehistoric pot sherds, sixty pieces of struck flint and one hammerstone, nearly all of which were either undiagnostic or residual items in Late Iron Age / Early Roman features. Much of the flint assemblage on technological grounds is dated to the Late Bronze Age / Early Iron Age period. Other later prehistoric remains, perhaps representing use of the site and its vicinity for occupation, included a substantial pit [231], a four-post structure (G9), and a small number of enclosure ditches (G13, G15 and G16). The archaeological remains of Period 1 can be divided into two distinct phases: Late Bronze Age and Middle Iron Age.

Phase 1.1: Late Bronze Age

Residual artefacts and a large oval pit [231] represent occupation within Areas 1 to 3 during the late Bronze Age (Fig. 3). Pit [231] had near vertical sides and measured 1.51m long, 1.12m wide and 0.66m deep. Its single dark-greyish brown silt clay fill contained frequent flecks and fragments of baked clay and charcoal, together with occasional small pockets of re-deposited chalky till, perhaps implying that it had been deliberately backfilled, seemingly using a combination of natural, topsoil and domestic debris. Artefacts from it comprised four cylindrical loomweights, a large assemblage of Late Bronze Age pottery, and a small quantity of animal bone. None of these artefacts, either as a group or individually, presented clear evidence for ritual deposition.

Phase 1.2: Middle Iron Age

Possible and probable Middle Iron Age features lay at the western ends of Areas 1 and 2 and comprised a four-post structure (G9) and three Middle Iron Age or earlier ditches (G13, G15 and G16). Other features within that general area composed a cluster of thirteen, intercutting, later prehistoric pits (G1), although none of them were closely datable.

Structure G9 was represented by four post-holes [267, 281, 283 and 286], demarcating the corners of a rectangular timber structure measuring 2.6m wide and 2.8m long (Figs 3 and 4). The post-holes measured between 0.25m and 0.43m deep and were generally square in plan and steep-sided in profile. Two fills occupied each, but presented no evidence for post-pipes. Dating evidence for G9 consisted of seven later prehistoric pot sherds, all from post-hole [281], five of which can be attributed to the Middle Iron Age period. Structure G9 is suggested to have been an elevated granary. A group of four post-holes [223, 225, 227 and

229] roughly 100m east of G9 are conjectured to be remnants of another later prehistoric structure (G7), but provided no dating evidence to make it more credible (Figs 3 and 4).

Fragments of ditches, possibly representing enclosure boundaries, lay near the west end of Area 2 and included three which could have been in use during the Middle Iron Age period (G13, G15 and G16) (Fig. 3). Ditches G13 and G15 contained no finds but were cut by possible Late Iron Age / Early Roman ditches G11 and G12, and Middle Iron Age ditch G16 respectively. G16 the most substantial of the three measured 0.6m deep. Its contents included 128 sherds of Middle Iron Age pottery.

Pit group G1 at the west end of Area 1 consisted of a minimum of fourteen rounded and irregular, mostly small, shallow pits [2, 10, 13, 15, 17, 19, 23, 25, 27, 30, 33, 35, 37 and 51], nearly all of which intercutting (Fig. 3). Their dating evidence comprised a collective 135 small sherds of undiagnostic later prehistoric pottery, about 50% of which came from pit [51]. The functions of the pits were not evident.

Period 2: Late Iron Age to Early Roman

The majority of the features discovered by the archaeological work denoted two phases of Late Iron Age to Early Roman enclosures, with those of phase 2.2 appearing less substantial, though more formal, than those of 2.1. Other Late Iron Age to Early Roman remains comprised pits and a small number of cremation burials.

Phase 2.1: Mid 1st century BC to mid 1st century AD

Enclosure ditches

Eighteen ditches represent phase 2.1 enclosures and boundaries, three of which were located near the western end of Area 2 (G10 to G12) (Fig. 3), and fifteen within Area 3 and the eastern end of Area 1 (G22, G23, G27 to G29, G33, G35 to G42, and G46) (Figs. 5 and 6). Nearly all of the enclosures were irregular in appearance, demarcated by ditches which were broad and / or curved or slightly wavy. G35, the exception to this, was defined by a narrow ditch and largely straight-sided.

Ditches G10, G11 and G12 at the western end of Area 2 contained small quantities of Late Iron Age / Early Roman pot sherds in their fills and were probably in use during phase 2.1 (Fig. 3). Ditch G10 was the most substantial of them with a depth of 0.4m. A 2m-wide gap

interrupted its course and was probably an entranceway. Ditches G10 and G11 ran parallel to each other and cut later prehistoric ditch G13.

The ditches of Area 3 and the east end of Area 1 varied in width and depth and were slightly irregular and meandering in plan (Figs. 5 and 6). The most substantial of them (G23, G27 and G35) were *c.*2.9m wide and 1.35m deep, with the depths of the others lying between 0.75m to 1.2m. Ditch G35 became broader and deeper from north to south. Ditch G33 was consistently small and shallow and formed three sides of a straight-sided enclosure. Evidence for ditch maintenance was confined to recuts [382] and [393] in excavated segments [360] and [361], across the east-west arm of G35, immediately north of the open end of the small square enclosure, which was defined by ditch G33 (Figs 6 and 8, sections 1 and 2). Both recuts were identified in section only and were only half as deep as their initial ditches.

The fill sequences of each of the excavated ditch segments, excluding the two aforementioned recuts, consisted of a minimum of three fills, generally comprising initial weathering deposits of displaced chalky till beneath later deposits of friable brownish-grey or greyish-brown soil, probably deriving from silting and displacement of topsoil, mainly through erosion, with additional contributions perhaps coming from deliberate backfilling. The importance of the ditches as barriers and boundaries is likely to have decreased over time since their later fills generally contained domestic debris such as fragments of animal bones, baked clay, and pottery, suggesting that they eventually came to be used as receptacles for secondary waste disposal, presumably from nearby off-site settlement areas. The pottery progressions of each of the ditch fill sequences, starting from the earliest fill upwards, largely consisted of Late Iron Age grog tempered wares followed by mid 1st-century AD Black Surfaced Wares and storage jar fabrics, giving the ditches a suggested lifespan of *c.*100 years.

The small oval enclosure bounded by ditches G39 and G40 in the middle of the enclosure complex was the only one of the period 2.1 enclosures to be fully enclosed (Fig. 6). Ditches G22, G27, G28 and G29 and the east-west stretch of G35 were possibly part of another fully surrounded enclosure, although there was no identifiable evidence for its western side. Entranceways were indicated by breaks between G27 and G35, G39 and G40, and G36 and G46. The evidence for modification to the enclosure layout was slight and consisted partly of the replacement of G36 by ditch G37, which lay slightly to its east and converged with G36 as it ran northwards. It also included ditch G28 cutting and slightly amending the course of

ditch G29 (Figs 6 and 8, sections 3 and 4). However, the wider developmental sequence behind the formation of the enclosures was not possible to ascertain because of a dearth of clearly defined stratigraphic relationships.

Cremation burials

Four cremation burials (G51), [425, 431, 445 and 597], were dispersed across the northern end of Area 3 (Fig. 6). The best preserved of these [445] contained two ceramic accessory vessels [448 and 449] and a jar [447] containing cremated bone and an unburnt bracelet and tweezers (Fig. 7). The other cremation burials [425, 431 and 597] were un-urned and contained no grave goods. The attribution of [425] and [431] to the Late Iron Age / Early Roman period is tentative and based on an assumed association with burial [445] to their north-west and with the many Late Iron Age Early to Roman remains to their south.

Cremation burial [597] was cut by phase 2.2 ditch G43 and is therefore slightly more securely dated. Included within the single fills of each of the pits were flecks and pieces of charcoal, probably representing the incorporation of pyre debris. The amount of cremated bone in each was less than expected for a human adult, although this could have been entirely or partly due to feature truncation as much as to deliberate selection and interment of only a sub-set of the burnt remains.

Other phase 2.1 features

Discrete or small features probably in use during period 2.1 comprised six pits and a short length of gully. Pits [233, 236 and 237] incorporated mostly small fragments of Late Iron Age pottery in their fills and formed a loose cluster (G8) towards the east end of Area 1 (Fig. 5). Gully [70] was located near the opposite end of Area 1 and was cut by an undated ditch (G5) (Fig. 3). Pit [408] lay within the confines of the small straight-sided enclosure (G33), along with the two other small undated pits (Fig. 6). The contents of pit [408] included the base of a pedestal bowl or jar. Pits [480] and [501] were located between ditches G36 and G37 (Fig. 6). Pit [501] contained a small amount of Late Iron Age pottery and was truncated by both ditches. The fill of pit [480] produced a sizeable amount of pottery; 274 sherds, probably from just two vessels.

The presence of these discrete features probably implies infrequent, casual use of the areas of the enclosures for burying of unwanted refuse from one or more nearby sites of domestic occupation, the focal points of which have not been identified or discovered. None of the

discrete features or their contents provided clear evidence for religiously motivated ritual deposition, and their numbers were too small to clearly demonstrate if some parts of the site had been more favoured than others for disposing of waste in pits.

Phase 2.2: Mid 1st century AD

Enclosure ditches

There was no direct evidence to indicate if any of the Phase 2.1 ditches were still extant when the Phase 2.2 ditches were laid out, although some of them may have been surviving as shallow earthworks since they appear to have influenced the positioning of the succeeding Phase 2.2 ditches (G30, G31, G32, G43 and G44) (Fig. 6). Ditch-side hedgerows may have further preserved the courses of the phase 2.1 ditches, although there was no direct evidence to validate this. Ditch G32 passed through the former entranceway defined by the terminals of ditches G27 and G35 and ran close to, and parallel with, the southern section of G33. The phase 2.2 enclosure formed by ditches G32, G43 and G44 can be surmised to have incorporated the north-south stretch of phase 2.1 ditch G35 as an east side, while ditch G44 perhaps reiterated the course of phase 2.2 ditches G36 and G37. Phase 2.2 ditches G30 and G31 possibly perpetuated the course of east-west arm of G28 in a similar fashion.

Unlike those of the previous phase, the enclosure ditches of phase 2.2 (G30, G31, G32, G42, G43 and G44) were more regular or formal, in that they ran more perpendicular and were slighter, straighter and shallower (Fig. 6). They contained only one or two fills per excavated segment and were typically no more than 0.35m deep. One enclosure was possibly formed by ditches G32, G43 and G44, while another to its south was perhaps bounded by ditches G30 to G32. The lifespan of the phase 2.2 ditches was probably short since they cut phase 2.1 ditches, and contained no datable artefacts later than the mid 1st century AD.

Other phase 2.2 features

Two pits, one large (557) and one small (101), and a short length of gully (G18) contained low to moderate amounts of early Roman pottery and were probably in use during the second half of the 1st century AD, probably for the same reason as suggested for the discrete features of phase 2.1. Pit [101] and gully G18 lay at the eastern end of Area 1 (Fig. 5), and pit [557] north of Phase 2.2 ditch G35 in Area 3 (Fig. 6). Pit [101] cut period 2.1 ditch G23.

Period 3: Medieval

All but one of the medieval features were discovered within the south-eastern part of Area 1 and either composed ditches (G20 and G21) or pits [79, 129, 152, 190 and 194] (Fig. 5). The pits formed a small cluster (G19) and were of variable size and form, the largest [79] measuring 2.2m wide and 1.2m deep. None provided clear evidence as to their function. Some of the pottery from pit [194] lay within an overlying cut for a modern agricultural drain-pipe [201]. Ditches G20 and G21 ran roughly parallel, sitting stratigraphically between Late Iron Age / Early Roman ditch G23 and post-medieval / modern trackway ditches G24 and G25. In addition, ditch G21 cut medieval pit [190]. Segment [125] across ditch G21 had two fills and a distinctive V-shaped profile measuring 0.68m deep; it was the only one of the segments dug across the two ditches to be fully recorded. The dating evidence provided by the medieval pot sherds made it likely that all of the medieval features had been in use during the 13th century.

Other medieval remains included pit [56] and small number of residual sherds, all within the west end of Area 1. The pit contained nine sherds of pottery and was probably in use at the same time as those of the other end of Area 1. Segments [50] and [67] of nearby post-medieval / modern field ditches G3 and G4 incorporated small numbers of medieval pot sherds.

Period 4: Post-medieval and modern

Datable post-medieval and modern remains mainly consisted of field and trackway ditches G3, G4, G24 and G25 in Areas 1 and 2 (Figs 3 and 5), and field ditches G45 and G47 in Area 3 (Fig. 6). All of these must have been no longer extant by the late 19th century since none of them appear on the 1880 or later editions of the Ordnance Survey.

Ditches G3 and G4 in Areas 1 and 2 contained intact and in situ ceramic land drainage pipes at their bases, but no other artefacts. Ditches G45 and G47 in Area 3 ran perpendicular and parallel with each other and an existing ditch and hedgerow, 120m to the west. Ditch G47 cut Late Iron Age / Early Roman ditches, including ditch G44 from period 2.2. Finds from G45 and G47 were possibly residual and composed small amounts of abraded Late Iron Age / early Roman pottery. Ditch G45 is possibly part of phase 2.2, but is more likely to have been in use during the post-medieval or modern period since it has a different size and profile to that of G30, G31, G32, G43 and G44.

Trackway ditches G24 and G25 cut the medieval ditches of Period 3 and delimited numerous wheel ruts (G26). It measured 4m wide and was probably used as a haul road for transporting gravel, since it headed towards and away from the post-medieval / modern quarry pit, which was situated towards the east end of Area 3. The contents of G24, G25 and the wheel ruts included horseshoes, post-medieval / modern ceramic building materials, and residual medieval, Late Iron Age and early Roman pot sherds. Pockets of gravel were also present, perhaps implying that the trackway was metalled.

Undated

The most notable of the site's many undatable remains were the poorly preserved skeletal remnants of a human inhumation [150], which lay extended and supine within a shallow, north-south aligned grave [185], located towards the north-eastern corner of Area 1 (Fig. 5). The skeleton was probably that of a young adult, although its gender was unable to be established because of its poor preservation.

The contents of undated, shallow pit [174], c.6m to the south-west of this grave, were probably associated with the inhumation, since they composed a cluster of poorly preserved, non-cremated bones from a young human adult, the gender of which was no longer evident. Long bones composed most of the surviving remains, although it is not known if they were still articulated.

ARTEFACTUAL REMAINS

Most of the artefacts found by the archaeological work were recovered from ditches and a small number of pits within Area 3 and the east end of Area 1, and mainly composed Late Iron Age, Early Roman and medieval pot sherds, together with fragments of baked clay and later prehistoric loom weights. Items of metalwork were also discovered, including a fairly unusual example of a Late Age tubular bracelet. Small amounts of animal and human bone attest to keeping of livestock and use of the eastern parts of Areas 1 and 3 for human interment.

Struck flint, by Karine Le Hégarat

A total of sixty pieces of struck flint as well as a flint hammerstone were recovered from Areas 1 to 3. The assemblage largely composes unmodified pieces of flint debitage, and

contains no chronologically distinctive types. Based on technological traits, the majority of the flintwork is likely to be of late prehistoric date (Mid to Late Bronze Age / Early Iron Age). A few pieces are possibly earlier such as the core face rejuvenation flake and some of the unmodified pieces of flint debitage. The artefacts were individually examined and classified using a standard set of codes and morphological descriptions (Butler 2005; Ford 1987; Inizan *et al.* 1999) (Table 1).

Category type	Period 1	Period 2	Periods 3 and 4 & undated	Total
Flakes*	6	30	14	50
Blade-like flakes	-	1	2	3
Irregular waste	-	2	-	2
Cores, Core fragments	1	1	-	2
Retouched forms	-	-	3	3
Hammerstone	-	1	-	1
Total	7	35	19	61
%	11.48%	57.38%	31.14%	100%

TABLE 1: Summary of the struck flint by period (* includes core preparation flakes)

Overall, the material was thinly spread with no features producing more than seven artefacts. Struck flints were retrieved from a number of features, including post-hole [286] of Middle Iron Age four-post structure G9, and Late Bronze Age pit [231], both of which contained small numbers of flints which could have been contemporary with them. The remaining material (88.52% of the total assemblage, n=54) comes from undated and Late Iron Age / early Roman or later features and is therefore either undated or residual.

The assemblage is dominated by knapping débitage including forty-eight flakes, three blade-like-flakes and two pieces of irregular waste. A relatively large proportion of pieces were technologically poor. The flakes are largely small, with squat flakes with plain platforms predominating. Platforms were occasionally cortical and most butts exhibited minimal or no preparation. It seems that cores were also made expediently. No effort was made to prepare a platform edge for the multiplatform flake core recovered from Late Bronze Age pit [231].

Only three retouched pieces were recovered; a concave scraper made on a natural flake, a crudely worked piercer and a minimally retouched flake. None are particularly diagnostic. Overall, the assemblage displays characteristics consistent with a flake-orientated industry dating to the Middle to Late Bronze Age / Early Iron Age period. Nonetheless, the core face

rejuvenation flake from excavated segment [270] in undated ditch G2, in Area 1, as well as some of the other flakes, would not be out of place in a Mesolithic / Neolithic context.

Prehistoric pottery, by Anna Doherty

The prehistoric pottery assemblage is fairly undiagnostic in character meaning that most of the features are unable to be closely dated. Only one large diagnostic Deverel-Rimbury stratified group is identified, that from Late Bronze Age pit [231]. More generally, the range of fabrics is typical of the later Bronze Age to Early Iron Age. Flint or flint and sand tempered fabrics (such as Brown 1988, fabrics A-F) tend to dominate later Bronze Age and Early Iron Age assemblages (e.g. Brown 1988). The more diverse tempered fabrics (such as F-Z), which were found in very small quantities across a range of features, are more appropriate to Early or Middle Iron Age pottery.

The large group of Deverel-Rimbury pottery (259 sherds; 1.25kg) from pit [231] was recovered from fill [232]. This group is largely composed of Brown’s (1988) flint-tempered fabrics C and D with only two grog-tempered sherds. The most diagnostic element is a globular urn bearing the scar of an applied lug handle (Fig. 9.01), typical of this date, though unusual in Essex, where most Deverel-Rimbury pottery comes from cremation burials and comprises bucket urns. Globular urns are usually associated with domestic sites.

Catalogue of illustrated prehistoric vessels

1. Globular urn with lug handle (Brown 1988, fabric E), fill [232], pit [231].

Late Iron Age and Roman pottery, by T.S. Martin (with Anna Doherty)

A total of 3291 sherds (27.91 kg) of late Iron Age and Roman pottery was recorded. The pottery was classified using the Chelmsford typology published by Going (1987, 2-54), as is standard for Essex sites, and the still useful *Camulodunum* typology (Hawkes and Hull 1947; Hull 1958 and 1963) for forms that are not present in Going. Most contexts only produced small amounts of pottery, usually less than 1kg, suggesting a general absence of primary rubbish deposits on the site. A total of fifteen fabrics were identified and these are recorded in Table 2.

Code	Fabric	Fabric number (after Going 1987)
AMPH	Misc. amphora fabrics (including Dressel 1; Dressel 20)	

BSW	Misc. Black-surfaced wares (Romanising fabrics)	(34 / 35)
BUF	Unspecified buff wares	31
COLB	Colchester buff ware	27
ESH	Early shell-tempered ware	50
GRF	Fine grey wares	39
GROG	Grog tempered wares	53
GROGC	Grog tempered wares (coarse)	
GRS	Sandy grey wares	47
MICW	Misc. Iron Age coarse wares	
NGWF	North Gaulish white fine ware	
NGWFS	North Gaulish white fine sandy ware	
RED	Unspecified red wares	21
STOR	Storage jar fabrics	44
TR 1 (A)	Terra Rubra	

TABLE 2: Late Iron Age and Roman pottery. Range of fabrics present

Catalogue of illustrated Late Iron Age and Early Roman vessels

2. G5.1 jar with incipient groove, ESH (top fill 363 of recut 382, segment 360, ditch G35).
3. Cam 212A, GROG (single fill 572, segment 573, ditch G41).
4. G3 jar, GROG (tertiary fill 468, segment 471, ditch G37).
5. G20 jar, GROG (tertiary fill 468, segment 471, ditch G37).
6. Strainer (M2) with holes made *post cocturam*. GROG (tertiary fill 468, segment 471, ditch G37).
7. Strainer (M2) with holes made *post cocturam*. ESH (tertiary fill 468, segment 471, ditch G37).
8. G3.2 jar, GROG (secondary fill 469, segment 471, ditch G37).
9. G20 jar, GROG (secondary fill 469, segment 471, ditch G37).
10. G15/Cam 229 jar, GROG (primary fill 606, segment 607, ditch G38).
11. Base with holes made *post cocturam*. GROG (primary fill 606, segment 607, ditch G38).
12. Strainer (M2) with holes made *post cocturam*. GROG (single fill 617, segment 577, ditch G43).
13. Pedestal beaker Cam 76A, TR1 (A) (fill 594, segment 577, ditch G43).
14. Jar CAM249/G3.2 GROG (Latest fill 121, segment 108, ditch G23)

The pottery assemblage is notable for the dominance of locally made ‘Belgic’ grog-tempered wares. These fabrics account for around 80% of the total weight of pottery recovered from the site. Other ware types including South Essex shelly wares, Gallo-Belgic imports, pre-conquest Dressel 1 amphorae, transitional ‘Romanising’ black-surfaced wares, fully Romanised sandy fabrics, and Dressel 20 amphorae, each accounting for between 1-5% of the assemblage by weight. This picture suggests that the most concentrated period of activity probably pre-dated the Roman conquest. There is no clear evidence to suggest that any of the Roman material extends into the Flavian period (69 to 96 AD). Most of the assemblage derives from ditches with an extended sequence of infilling, stretching from the Late Iron Age into the early Roman period. The pottery can be broadly grouped into three chronological phases which appear to have a fairly sound stratigraphic basis. These groupings are defined as follows: Late Iron Age, mid 1st century AD and early Roman.

The Late Iron Age group is mainly associated with the primary and secondary fills of ditches although some smaller groups were recovered from pits. In these groups, grog-tempered sherds predominate to the virtual exclusion of anything else although groups of this type may contain a few sherds of shelly fabrics, imported amphorae or Gallo-Belgic wares.

By far the bulk of the identifiable Late Iron Age vessel forms are jars and many of these find close parallels in the Camulodunum series. This seems to be the case throughout the life of the site. The dominance of jars is also a feature of other Late Iron Age rural sites in the county. Groups from Hatfield Peverel (Martin 1996, 4), North Shoebury (Thompson 1995, fig. 71), Slough House and Chigborough Farm (Horsely and Wallace 1998, fig. 102 and fig. 104, nos 1-6 respectively), for example, show this trend clearly. At Roxwell, a wide range of grog-tempered vessels both necked and neckless types are represented within this class. The earliest jar forms appear to be handmade and tend to have very rounded profiles. A small number of bases from pedestal jars are present, one of which was recovered from cremation burial [445] (see below). Also recorded was a jar corresponding to Hawkes and Hull 1947, fig 56 12-3. Necked jars predominate, however. The range covers Cam 256A, Cam 229D (Fig. 10.10), Cam 221, Cam 220A, Cam 225, Cam 218Aa and Cam 231. One vessel resembles Cam 263 / 264 but has rilling.

The most common early shell-tempered ware jar form is the club-rimmed Cam 254. Lid-seated jars are rare on the other hand. There is some evidence to indicate that Cam 254 is a pre-conquest form, while the lid-seated jar was a post conquest introduction. At Orsett, analysis of the relationship between these types suggested that they tended to be mutually exclusive (Cheer 1998, 93). The evidence from Roxwell lends some support to this. If this dating is correct, it suggests that the bulk of the early shell-tempered pottery had arrived in the Late Iron Age rather than in the Roman period.

Another chronologically significant aspect of the assemblage is the presence of three fragments of Dressel 1 amphora, including diagnostic basal spike and shoulder sherds. The production range for this class of amphorae falls firmly between *c.*130-10BC. However, this type does occur on sites where other ceramic, coin and brooch evidence for activity in the late Republican period is lacking. At Sheepen, this pattern was explained by old vessels being brought to the site for a secondary purpose (Sealey 1985, 99). Certainly, the three sherds from

Roxwell appear to be associated with material of slightly later date: one example was stratified with a Terra Rubra Cam 76 pedestal beaker, dated c.15BC-AD25 (Fig. 10.13), in a fill of G43 ditch segment 577 and another with a sherd of North Gaulish white ware, dated c.AD10-80, in a secondary fill of G37 ditch segment 455. More generally the range of coarse pottery forms described above is in keeping with activity beginning in the late 1st century BC to early 1st century AD so it seems possible that the amphorae represented curated or reused material by the time of the Late Iron Age settlement's foundation.

Another group of contexts is characterised by the appearance of black-surfaced wares and storage jar fabrics, although they remain dominated by grog-tempered pottery. These are generally stratigraphically above the Late Iron Age group and are strongly associated with the intermediate and top fills of ditches. The range of vessel forms in transitional black-surfaced wares and fully Romanised fabrics is very limited and where identifiable can be paralleled in the Chelmsford typology fairly closely. Identifiable forms in this period include G20 and G15 necked jars (Figs 10.05, 10.09, 10.10), G5 lid-seated jars (Fig. 10.02), G3 simple out turned rim jars (Figs 10.04, 10.08, 10.14), and G44 storage vessels, sometimes with rilled bodies. A single example of a Cam 212A bowl was also noted (Fig. 10.03) as well as examples of grog-tempered H7 butt-beakers. The paucity of identifiable forms is partly due to the fragmentary nature of the pottery in general, but it also implies that there was a real decline in the level of activity at Roxwell in this period.

The final grouping is clearly early Roman in date; although these assemblages are, overall, quite similar in composition to those from the mid 1st century AD, they are characterised by the presence of small quantities of fully Romanised grey wares and very small amounts of buff wares from Colchester. This material is largely confined to the top fills of ditches, or comes from single-fill ditches. Again there is a notable dearth of diagnostic material from these groups.

Cremation burial pit [445] contained three wheel-thrown grog-tempered jars, although all of these were unfortunately very heavily truncated making it difficult to discern their precise form. Two, including that which contained the cremated bone, were flat based forms with shouldered profiles and well-defined necks; a third was a pedestal vessel, probably similar to Cam 202 / 203. A truncated pedestal vessel was also found in association with pit [408]. At Camulodunum (Hawkes and Hull 1947), pedestal vessels of this type were generally regarded

as pre-conquest in date and both cremations can probably be placed broadly within a late 1st century BC to mid 1st century AD range. Having said this, the two accompanying flat based jars in [445], although only loosely classifiable, seem to have more in common with broadly 1st century AD forms such as Cam 218-220.

Aside from the vessels associated with the cremation burial, the pattern of pottery distribution on the site appears consistent with repeated deliberate episodes of secondary rubbish disposal in ditches. Many of these features produced medium or large groups of pottery but this tended to be broken material. Perhaps the single exception to these comes ironically from the latest fill [121] of post-medieval / modern ditch G25 (segment [108]), within which lay a nearly intact G3.2 jar in a coarse grog-tempered fabric (Fig. 10.14). Interestingly, this jar featured a prominent hole in the vessel wall which, although possibly the result of normal breakage, had the characteristics of a flat spall detached during an unsuccessful kiln firing. This vessel occurred with two other partially complete vessels, including the lower half of a jar with a single large post-firing perforation. Such modifications may suggest vessels reused as strainers but there is also some evidence to suggest that deliberately holed vessels are preferentially selected in special deposits (Fulford & Timby 2001). Additionally, several strainer vessels of a slightly different type, with numerous *post cocturam* holes were concentrated in ditch G37 (Figs 10.06, 10.07, 10.11, 10.12); however there was no clear evidence that these were deliberately placed.

The presence of early imported wares is of some note as these are often seen as evidence of connections to continental supply routes and adoption of Gallo-Roman culinary and wine-drinking culture. The occurrence of a number of brooches and the rich grave furniture associated with burial [445] also adds to a picture of some degree of high-status activity. However, the imported pottery from Roxwell belongs to a fairly narrow range including a few sherds of Dressel 1 wine amphora and Gallo-Belgic imported fine wares, restricted to North Gaulish white ware Cam 113 butt beakers and a Cam 76A pedestal beaker in Terra Rubra. Although even a small assemblage is slightly unexpected in a rural location, away from the coast or networks serving oppida or other high-status settlements, this amount of material might be the result of a very limited number of trade or exchange events. Recent work has produced isolated examples of Gallo-Belgic wares from central and north Essex rural sites; for example, Strood Hall and east of Little Dunmow Road (Biddulph *et al* 2007, 258; 265). The absence of Terra Nigra is also probably significant and may indicate that any

high-status activity occurred fairly early on in the site's history. This point is also emphasised by the lack of non-jar forms in the mid 1st-century / early Roman groups. Platters, for example, appear to be exceptionally rare with all examples of this vessel class appearing in grog-tempered ware. Grog-tempered ware bowls and cups were also rare and only few examples of locally-produced butt-beakers were recorded.

Medieval pottery, by Helen Walker

A total of 873 sherds weighing 5.2kg was excavated from seventeen contexts and has been catalogued according to Cunningham's typology of post-Roman pottery in Essex (Cunningham 1985, 1-16). In addition, the cooking-pot rims have been dated using Drury's typology at Rivenhall (Drury 1993, 81-4). The pottery is quantified in Table 3, the table also indicating the presence of Roman pottery as a check for residually, as it follows that if pottery from earlier periods has found its way into a context, then the medieval pottery may also be residual (Vince 1991, 265). All wares present are described in the published literature and are not detailed again in this report (Pearce *et. al* 1982; Drury 1993; Cotter 2000; Walker 2012).

	Segment 50 (48,49) G3	Pit 56 (55)	Segment 67 (66) G4	Segment 215, (214) G23	Pit 79 (80,148)	Pit 129 (126; 128)	Pit 152 (151)	Segment 110 (112) G25	Segment 161 (158) G24	Pit 190 (189)	Pit 188 (187)	Pit 194 (193)	Drain pipe 201 (200)	Segment 198 (195) G20	Total Sherds
Shell-tempered ware	-	-	-	3	7	-	-	1	-	-	-	-	-	-	11
Shell-and-sand-tempered ware	1	-	-	-	1	1	2	-	-	-	-	-	-	-	5
Sand-with-shell-tempered ware	-	-	-	-	3	-	-	-	-	-	-	-	-	-	3
Early medieval ware	2	1	-	-	15	-	1	-	-	-	-	-	-	-	19
Medieval coarseware	3	1	1	-	94	160	70	-	-	2	3	10	10	7	361
Hedingham coarseware	3	1	-	-	1	14	11	-	-	-	1	-	1	-	32
Mill Green coarseware	-	-	-	-	63	81	109	-	-	3	3	5	4	13	281
Mill Green fineware	-	-	-	-	22	69	18	-	-	-	-	4	1	-	114
Sandy orange	-	-	-	-	9	19	12	-	1	1	-	5	-	-	47

ware															
Total wt (g)	39	9	10	5	1605	1743	1271	1	14	13	43	160	112	132	
	R		R		R		R	R							

TABLE 3. Quantification of pottery by ware, feature (fill in brackets) and sherd count; the total weight of pottery per feature is also shown; R denotes the presence of Roman pottery

Medieval pit [56] and ditch segments [50] and [67] across post-medieval / modern field ditches G3 and G4 within the western end of Area 1 all produced only small quantities of pottery comprising sherds of early medieval ware, medieval coarseware and Hedingham coarseware, with one sherd of shell-and-sand-tempered ware in segment [50]. The only form present is an early medieval ware cooking-pot rim in the primary fill of pit [50] (fill 49). The rim is of Drury's type H2, typically found on medieval coarseware cooking-pots of the early to mid 13th century, but given that this cooking-pot is in early medieval ware, an early 13th century date seems most likely. The fact that the average sherd weight of pottery from these features is only 4.5g, and the presence of Roman sherds in segments 50 and 67 indicate a high likelihood of residuality.

Three very small abraded sherds of shell-tempered ware weighing a total of only 5g were excavated from context [214], a primary fill of G23 ditch segment [215], which was stratified below all the other medieval features in this part of the site. These sherds could date anywhere between the 10th and 13th centuries.

Pits [79, 129 and 152], situated at the eastern side of Area 1, produced the largest quantity of pottery, totalling 4.6kg. However, the average sherd weight is small, only 6g, some of the sherds are abraded, and Roman sherds occurred in some of the fills, again indicating the pottery may be residual. Horizontal sherd linkages were noted between pits [129] and [152], and between pits [129] and [79]. There are also vertical sherd linkages between the upper and lower fills of pit [129] and between both fills of pit [79]. It would appear that all the pit fills are contemporary and are therefore discussed as a single group.

Fine wares comprise fragments from Mill Green ware jugs, with a smaller number of fragments from sandy orange ware jugs. There are seven Mill Green ware inturned or carinated jug rims and one plain necked, slightly beaded jug rim, with reeding around the neck (*cf.* Meddens and Redknapp 1992, fig. 13.22). Many sherds are decorated and the two principal styles found on Mill Green ware, slip-coating under a mottled-green glaze

sometimes accompanied by combing, and slip-painting under a plain lead glaze, are well represented. One quite large fragment from the body of a jug shows curving combed lines as well as the more typical vertical straight-lines. Another body sherd shows slip-painted dots and curving lines (*cf.* Meddens and Redknapp 1992, fig. 24.146). Of some interest is a sherd from the upper part of a Mill Green ware jug showing reduced surfaces, a row of applied white slip dots and a very dark green glaze, appearing almost black over the reduced surface. This is a more unusual method of decoration. Jug bases in this ware are thumbled, apart from one example of a sagging base.

There is one example of a sandy orange ware jug with an inturned rim, and like the Mill Green ware, there are examples of slip-painted decoration and slip-coated, green-glazed and sometimes combed decoration. It is possible that these are actually sandy versions of Mill Green ware, but could equally well be copies made by other industries. There are examples of thumbled jug bases in sandy orange ware and one example of a recessed base. Of some interest is a sherd with a vertical strip in brown clay applied over a cream slip-coating, a green glaze gives a mottled-green background but the darker strip appears brown under the glaze. Further sherds possibly from the same vessel occur in pit [194].

As is typical of medieval sites, coarsewares far outnumber finewares. In this group, medieval coarseware and Mill Green coarseware are common, with much smaller quantities of Hedingham coarseware. A few unfeathered sherds of shell-tempered ware, shell-with-sand-tempered wares and early medieval ware are also present, with a relatively large number of early medieval ware sherds in the top fill of pit [79] (fill 80), showing a shiny black ?carbonised residue on the internal surface.

Coarseware vessels comprise mainly fragments from jar forms, with the exception of a medieval coarseware handle of flattened oval section, probably from a jug. There are also a few very fragmented Mill Green coarseware rims, which could be from either jars or bowls. The most interesting vessel is a partially complete Mill Green coarseware cauldron with an everted rim and two angular loop handles, possibly an imitation of a metal vessel. Cauldrons are unusual, although can only be recognised as such if largely complete. Examples of Mill Green ware cauldrons occur at the production site (Meddens and Redknapp 1992, fig. 20.100), and have been found in London (Pearce *et al.* 1982, fig. 18.60). Similar cauldrons were also made in London-type ware and occur in London waterfront groups dated *c.*1270 to *c.*1340

(Pearce *et al.* 1985, 43). The vessel shows signs of being heated (see catalogue entry) and would have most likely been used for cooking. In addition to No.1, there are two further everted rims (in medieval coarseware and Mill Green coarseware) that may also be from cauldrons.

Cooking-pots are the most frequent jar form and occur in the following rim types:

- Rim form H2: four fragments, in Mill Green coarseware and medieval coarseware
- Rim form H1: twelve fragments, in Mill Green and Hedingham coarsewares and medieval coarseware
- Cavetto or curved over rims: one fragment in medieval coarseware

Curved over cooking-pot rims and the H2-type rim are typical of the first half of the 13th century according to Drury's typology, while rim form H1, the commonest type, was current throughout the 13th century. None of the coarsewares are decorated, however, a number of Mill Green coarseware sherds show splashes of internal glaze especially on the bases, a Mill Green ware characteristic (Pearce *et al.* 1982, 289).

Medieval ditches G20 and G21, and post-medieval / modern trackway ditches G24 and G25 were also situated at the eastern side of the site and were all fairly near to the large pit groups discussed above. Average sherd weight is again low, at 6.5g. G25 ditch segment [110] produced Roman pottery apart from a crumb of shell-tempered ware in primary fill [112].

All the other features produced a similar range of wares, in a similar condition and in similar proportions to the pits discussed above, albeit in much smaller quantities and with the absence of shelly wares and early medieval ware (see Table 3). In addition, a similar range of forms and decorated sherds are present. The only material that is different is a sherd of glazed sandy orange ware from the top fill of segment [161] of post-medieval / modern trackway ditch G24 (fill 158), the only pottery from this feature, showing lightly indented vertical grooves giving a fluted appearance, an unusual type of decoration. In addition, three small sherds from a Mill Green ware flatware were found in pit [194] (fill 193) showing an internal slip-coating covered by an apparent yellow glaze, which may be 14th century.

One horizontal sherd linkage was noted between pit [194] and large pit 129] (fills 126 and 193), indicating that this feature at least was open at the same time as the group of large pits. Pits [190] and segment [188 of ditch G21 were also intercutting, but again both features

produced very similar pottery and their fills may have become mixed (in antiquity). In conclusion, the pottery from these features, with the exception of that from ditch [110], is almost certainly contemporary with that from large pits [79, 129 and 152].

Discussion

The sherds of shell-tempered ware in G23 ditch segment 215, stratified at the bottom of the sequence within the east end of Area 1 may indicate an earlier phase of occupation, although unfortunately shell-tempered ware is a long-lived fabric spanning the 10th to 13th centuries, and is not necessarily much earlier than the pottery from succeeding features.

The medieval pottery from the western side of Area 1, *i.e.* pit [56] and segments [50] and [67] of post-medieval / modern ditches G3 and G4, is different from that of the western side, in that the assemblages are smaller, and there is no Mill Green ware, but a higher proportion of Hedingham coarseware. It is possible that the pottery from the eastern side is earlier, perhaps early 13th century, although with such small amounts of pottery, the evidence is inconclusive. The relative concentration of Hedingham coarseware could be an indicator of a date before the second half of the 13th century, since as at nearby Chelmsford, Hedingham fineware was almost entirely superseded by Mill Green fineware in the second half of the 13th century (Drury 1993, 89).

The latest pottery from the other side of Area 1 comprises the Mill Green ware cauldron datable to the late 13th to mid-14th century and the Mill Green ware slip-coated flatware fragment, which is likely to be 14th century. However, it has to be noted that no cooking-pot rim types characteristic of the 14th century are present (*i.e.* rim types H3 and E5).

The assemblage comprises mainly cooking-pots with smaller quantities of fineware jugs, this is typical of medieval sites and indicates the pottery is both from living and service areas. The preponderance of Mill Green ware is not unexpected as the production site lies only about 8.5km to the south. The cauldron is the only specialised vessel-form and probably functioned as a portable cooking vessel. In the eastern part, the fact that there are horizontal sherd linkages between different features suggests that there has been movement of pottery across the site. This may be the result of repeated ploughing, but could be due to dumping of pottery and subsequent levelling in antiquity after the site went out of use, as appears to have been the case at other rural sites in the county, for example Gutteridge Hall (Walker 2008, 32) and

Stansted Airport (Walker 2004, 417, 427). The pottery from Area 1 is similar to that from a previous excavation within the area in 1989 (Walker 1992, 46-8) in that Mill Green fine- and coarsewares were present and there was evidence for more than one phase of occupation.

Registered finds, by Elke Raeman

A total of forty-seven registered finds were recovered across contexts ranging in date from the Bronze Age through to the medieval period. The majority is of later Iron Age date, mostly comprising loomweights.

Late Iron Age and Early Roman Artefacts

Cremation deposit [451]

Cremation deposit [451], found within primary vessel [447] in Late Iron Age burial [445], contained four metal finds. Included are tweezers (cat no. 1), a bracelet (cat no. 4), a disc (cat no. 3) and a sheet fragment (cat no. 2), together representing the non-organic grave goods of a relatively modestly-furnished grave. None of the objects show any signs of having been burnt, suggesting they were placed in the vessel as grave goods rather than as pyre goods / debris.

Tweezers are comparatively uncommon finds in cremations of the period (Philpott 1991, 182). Although they could also have had surgical purposes (Jackson 1986, 137-8), the Roxwell Quarry tweezers (cat no 1, Fig. 11.01) are likely to have been used for the removal of unwanted facial and body hair. They fall within Jackson's second category. The slide ring would have enabled the blades to be clamped together during use or to be closed during storage (Crummy 1983, 59).

Of interest is a tubular bracelet within which a grain-shaped calcite pebble was found (cat. no. 4, Fig. 11.04). This type of bracelet was manufactured by wrapping copper-alloy sheet around a wooden core, which was then bent into shape. Traces of wood were noted within the bracelet during conservation. Unfortunately, too little survives to identify the wood.

However, an arm-ring from a 4th to 7th century BC child's grave at Cannington in Somerset retained remains of a hazel branch (Rahtz *et. al.* 2000, fig. 239, 355). Although the Cannington example is of much earlier date, the bracelet from Roxwell Quarry would have been made with the aid of a similarly pliable type of wood.

Most tubular bracelets have been recovered from graves, including examples from a warrior's burial at Stanway in Essex, dated to *c.*AD 40-50 (Crummy *et. al.* 2007, fig. 84, 179; 437) and from a female burial at Birdlip in Gloucestershire (Bellows 1881, 137-41, 137-41, fig. 9). Continental examples date to Hallstatt D through to la Tène III, and include bracelets from Ménil-Annelles and Ville-sur-Retourne in Champagne (Stead *et. al.* 2006, 82) as well as examples from the Manching and Trier area (van Endert 1991, 5-9; Haffner 1971; 1974). British examples need not necessarily be imports, and this type of bracelet could have been manufactured on both sides of the Channel (Michael Marshall pers. comm.).

Terminals of these bracelets are often damaged, rendering it difficult to establish the means to conjoin the bracelet. The example from Roxwell Quarry contains an inner tube, similar to a bracelet from Ville-sur-Retourne (Stead *et. al.* 2006, fig. 132, no 20, 284). Other methods include a hollow cast terminal into which the ends are fitted, as was noted on a 1st-century example from Frocester in Gloucestershire (Price 2000, fig. 2.9, no 233, 48).

During conservation, a small calcite pebble was recovered from within the bracelet. Although naturally shaped, the bead displays a man-made incision giving it the appearance of a grain. It is possible that the 'grain' got trapped in the bangle after deposition, but in that case it still appears to have been deposited together with the bracelet. No parallels were found for the small grain-shaped pebble. However, tubular bracelets are sometimes found in association with beads, some of which may also have had an amuletic function (Michael Marshall pers. comm.). The Stanway bracelet, for example, was found together with a glass bead carefully placed in the centre of the arm-ring (Crummy *et. al.* 2007, 178). Other examples, such as a bracelet from Ville-sur-Retourne (Stead *et. al.* 2006, fig. 132, no 20, 284) had been threaded with glass beads. If the 'grain' was locked inside the bracelet, it might, despite the wooden branch, have made a rattling noise, similar to the sound beads threaded on the outside would have made. Without knowing exactly where the pebble had been deposited, it is hard, however, to infer its significance. If it was contained within the bracelet, and it was worn during the owner's lifetime, the pebble was probably amuletic, perhaps representing a fertility symbol. Another suggestion is, if the grain related to the funerary ritual (more likely if the pebble only became lodged within the bracelet upon the latter's degradation) that it may have symbolised food for the afterlife.

Copper-alloy disc RF <17> (cat. no. 3, Fig. 11.3) forms part of a growing number of circular Late Iron Age objects known from southern England. The majority comprises large iron discs, usually measuring over 70mm, rendering the Roxwell Quarry example, with a diameter of only 21mm, an outlier. Similarly small examples were recovered from a cremation at Hinxton, Cambridgeshire, which contained two iron discs measuring 32-45mm in diameter (Hill *et. al.* 1999, fig. 10, nos. 7-8, 254), and from a burial at the A2 near Gravesend, which contained a copper-alloy notched example (Scott 2012, fig. 3.87, no. 10, 292). Both graves are high-status. The example from the A2 is almost identical to the Roxwell Quarry disc and only slightly larger (diam. 28mm), although, if the Roxwell Quarry disc contained the finer cuts they have now been worn away. It is unclear what the function of these smaller discs was, although all four examples were found in assemblages with an emphasis on personal appearance. They may therefore relate to personal adornment or grooming (Scott 2012, 295), and were perhaps threaded onto chains (Fitzpatrick 2013, 21; Hill *et. al.* 1999, 255), or they may have formed part of composite objects. In this respect it is notable that some were found in graves along with bronze sheets (Andrew Fitzpatrick pers. comm.).

1. RF <10> Copper-alloy tweezers (Fig. 11.01)
Fill 451 in vessel 447 (Burial 445); Period 2
Complete. Tweezers with flared, plain blades. Wire suspension ring and slide ring in the form of a collar with circumferential moulding. L64mm.
2. RF <16> Copper-alloy sheet (not illustrated)
Fill 451 in vessel 447 (Burial 445); Period 2
Incomplete. Six sheets fragments (0.6mm thick) and one short rod fragment (L8mm+, di 2mm), the latter abraded. Probably from two different, undiagnostic objects.
3. RF <17> Copper-alloy disc (Fig. 11.03)
Fill 451 in vessel 447 (Burial 445); Period 2
Complete. Disc with central perforation and four notches set at equal distance around the circumference. Uncertain function. Di 21mm; hole di 4mm; 1mm thick.
4. RF <18> Copper-alloy bracelet (Fig. 11.04)
Fill 451 in vessel 447 (Burial 445); Period 2
Incomplete. Hollow, sheet bracelet with oval section, decorated with single punched dot line on either side, as well as a further few apparently random short stretches of punched line decoration. An internal plug with overlapping seams and two rivet holes probably joined the armlet together, or may have functioned to adjust or repair the bracelet. There is a third rivet hole with in situ rivet. No

corresponding rivet holes survive on the bracelet (several sections have corroded away). Organic remains, probably from a wooden core, were found within the bracelet. A calcite pebble, either abraded or shaped into a roughly ovoid shape, was found trapped inside. It has a line deliberately incised across, giving the resemblance of a grain. Di 75mm; section 13 x 9mm.

Personal Adornment

Brooches

All four brooches recovered from Roxwell Quarry are of pre-Conquest type. They fall into Roman Essex groups 4 and 7 (Clifford 2013). Brooches are all fragmentary and were recovered from three different ditch fills, including two from fill [567] of ditch G39 segment [571]. There is no indication to suggest a structured deposit and they therefore more likely represent casual losses.

Colchester and derivatives

5. RF <5> Copper-alloy brooch (Fig. 11.05)
(567), G39 ditch segment 571; Period 2

Incomplete. Undecorated Colchester type brooch (Hull T90) with short side wings and eight coil spring. Catchplate missing. No original surface surviving. L72mm.

6. RF <2> Copper-alloy brooch (Fig. 11.06)
(369), G35 ditch segment 393; Period 2

Incomplete. Small Colchester Derivative with pierced catch plate (Hull T91; Bayley and Butcher Colchester type Group C). Decorated with transverse mouldings on the side wings. Spring and pin missing. Most of original surface missing. L33mm.

Langton Down

7. RF <4> Copper-alloy brooch (Fig. 11.07)
(452), G37 ditch segment 455; Period 2

Incomplete. Langton Down brooch (Hull T21) with plain reeded decoration. Catch plate and bow foot missing. Spring cover only partially surviving. Six-coil spring broken but present. Traces of white metal plate, probably tinning, survive on bow and spring cover. L64mm+.

8. RF <6> Copper-alloy brooch (Fig. 11.08)
(567), G39 ditch segment 571; Period 2

Incomplete. Langton Down brooch (Hull T21) with six-coiled spring and plain reeded decoration. Bow foot and most of the catch plate and spring are missing. No original surface surviving. L39mm+.

Footwear

Despite the fairly long length of the tang, RF <24> is likely part of a cleat (Manning 1985, R54-64). This type of object has been found in situ at the feet of several interments and are believed to come from the soles of boots or shoes. Some with very long tangs may have been used to fasten wood instead (Manning 1985, 131).

9. RF <24> Iron cleat (not illustrated)
(479), pit 480; Period 2
Incomplete. Fragments from a cleat. Tang length 24mm.

Toilet Instruments

As is the case here, the majority of nail cleaners are found on rural sites (Crummy and Eckhardt 2003, 49). The example from Roxwell Quarry was found as part of a toilet set and closest resembles Crummy type 2a (1983) with leaf-shaped blade, which was dated to the mid to late 1st century and possibly going into the 2nd century. The current example retains some incised decoration just below the shoulder. Incised cross and groove decoration such as this is fairly common with examples, e.g. in Winchester (Crummy 2008, fig 39 no 331) and Portchester (Webster 1975, fig 113, no 56, 211). A range of uses for the toilet spoon has been laid out by Crummy (1983).

Toilet instruments appear in the archaeological record in south-east England from the very end of the Iron Age period onwards and increase in number, suggesting an increased emphasis on personal grooming (Hill 1997, 100-102). The appearance of the toilet set (cat no 10) as well as the tweezers (cat no 1) in the cremation deposit both fit into this pattern.

10. RF <1> Copper-alloy toilet set (Fig.11.10)
(366), G35 ditch segment 358; Period 2
Near complete. Set comprising a nail cleaner and a toilet spoon on a penannular ring. The nail-cleaner (Crummy 1983 type 1b), with suspension loop in the same plane, is decorated with simple incised cross and groove just below the shoulder and ends in a double-pointed tip. L38mm. Ear scoop or cosmetic spoon with integral suspension loop fashioned from flattened handle; near complete cupped oval scoop/bowl. L 51mm+.

Textile Production

Evidence for weaving was found in contexts of Late Bronze Age, Late Iron Age and Early Roman date. Fired clay weights are common finds, particularly on low-status rural sites, and

textile production would have formed an important part of domestic life. Fabric descriptions are given in Table 4.

Bronze Age loomweights

Four cylindrical loomweights were recovered, two of which are complete (Cat. nos 11-13, Figs 11.11 to 11.14). All four were found in Late Bronze Age pit [231] and display spalling damage to the base and / or top. This is likely to have occurred at the time of firing.

11. RF <11> Ceramic loomweight (Fig. 11.11)
(232), Pit 132; Period 1
Complete with spalling to base. Cylindrical and well-made. Wt 1190g, H80mm, Diam 110mm. Perforation diam. 30mm. Fabric F3.
12. RF <12> Ceramic loomweight (Fig. 11.12).
(232), Pit 132; Period 1
Complete with spalling to top and base. Cylindrical. Wt 944g, H77mm, Diam 104mm. Perforation diam 27mm. Fabric F3.
13. RF <13> Ceramic loomweight (Fig. 11.13)
(232), Pit 132; Period 1
Incomplete (c. 90% surviving) with spalling to base. Recent damage to side. Wt 1060g, H78mm, Diam 108mm. Perforation dimensions 31 by 35mm (oval). Fabric F3.
14. RF <14>) Ceramic ?loomweight (Fig. 11.14)
(232), Pit 132; Period 1
Incomplete. Domed with off-centre vertical perforation. One end missing. Surviving wt 166g, H82mm+, Diam 58mm. Perforation diam 12mm. Fabric F4.

Iron Age loomweights

A total of 130 triangular loomweight fragments were recovered, representing at least twenty-one weights from twenty different contexts. The majority of these are in chalky fabric F1 (Table 4) and it is probable that at least some of the remaining undiagnostic fragments in this fabric, from a further forty contexts, are from loomweights as well. Fabrics F2, F5, F6 and F7 are also represented, but by no more than one loomweight each. Most of the weights are highly fragmented and often abraded and as such, few complete dimensions survive.

Triangular weights are ubiquitous finds on predominantly low-status rural sites from the Middle Iron Age onwards and are linked to the use of the upright warp weighted loom. Pottery associated with the current assemblage is mostly of Late Iron Age date, although

some were found in Early Roman contexts. The distribution of triangular weight fragments is strongly biased towards Area 3, with most pieces deriving from ditches and pits in the southern half. Given the high fragmentation suggesting extensive reworking, however, this distribution pattern in itself is of little consequence.

Tools

A socketed knife was found in secondary fill [109] of G23 ditch segment [108]. This type of knife is fairly uncommon with most examples found in London. Examples are known from Late Iron Age to Early Roman contexts, although one was also found in a 3rd century context (Manning 1985, 118).

15. RF <21> Iron knife (Fig. 11.15)
(109), G23 ditch segment 108; Period 2
Incomplete. Socketed knife with in situ nail. Part of socket missing. Straight blade back; edge curves down and then turns up to form (missing) tip. Manning Type 22 (Manning 1985, 117). L106mm+.

Weapons

A small iron spearhead was recovered from the surface of G35 ditch segment [369]. The form suggests a mid 1st century-date (Group IA, Manning 1985, 163-4).

16. RF <23> Iron spearhead (Fig. 11.16)
(624), surface find
Incomplete. Narrow leaf-shaped blade with rounded shoulders. Blunted tip. Surface largely missing. L108mm.

Miscellaneous Objects

The edge of a block of clay (fabric F1; RF <15>) was recovered from fill [509] of ditch G37 segment [503]. The corner is well-made and sharp (90° angle with face widths measuring 80mm+ and 100mm+). The object is obviously not a loomweight but its function is unclear. They are usually recovered from Late Iron Age contexts and here too the associated pottery is of this date. Other Essex sites with this type of object include Elms Farm, Heybridge (Tyrrell forthcoming), Little Oakley (Barford 2002, 92), Hill Farm, Tendring (Raemen forthcoming) and the Orsett 'Cock' Enclosure (Major 1998, 107). At the latter site they were found in relation to a domestic oven floor, and a baking-related function has been put forward, as well as that of a pot stand.

Medieval Artefacts

Dress Accessories

17. RF <22> Copper-alloy mount (not illustrated)
(126), G19 ditch segment 129; Period 3
Incomplete. Sheet leather mount with decorated beaded edge and repoussé band parallel to the edge.
Two rivet holes. Both ends and one edge missing. Dimensions 11+ by 5+ mm.

Tools and Structural Equipment

In addition to iron U-staple RF <19> and tool socket RF<20>, nine iron general purpose nails were recovered five different contexts.

18. RF <19> Iron U-staple (not illustrated)
(80), G19 pit 79; Period 3
Incomplete. Rectangular-sectioned; both tips missing. W 31mm, L71mm+.
19. RF <20> Iron tool socket (not illustrated)
(80) G19 pit 79; Period 3
Incomplete. Curving fragment from a tool socket with nail hole. L70mm+, W18-31mm+

Equestrian Equipment

Two horseshoes were found in post-medieval / modern fill [118] of wheel rut segment [120]. Included is a complete Clark type 4 horse shoe (RF <25>; Clark 1995, 88-91) with one calkin and three nail holes on either branch. The type dates to around the late 13th to mid 15th centuries. A type 2 wavy-edged horse shoe fragment (RF <26>) was recovered from the same context and dates to the 11th to 13th centuries.

Fired Clay, by Elke Raeman

A moderate assemblage of fired clay comprising 685 fragments weighing just over 9kg was recovered from ninety-seven individually numbered contexts. All fired clay was quantified by fabric and context. Fired clay was recovered from contexts dated to the Late Bronze Age up to the Roman period. Fragments from medieval contexts are likely to be residual, as is Late Iron Age pottery from the same contexts.

The majority of the assemblage comprises loomweight fragments, including both cylindrical Bronze Age weights and triangular Iron Age weights and the best preserved of these have been discussed with the registered finds. The amount of structural daub is negligible and is not discussed further. Most material is amorphous but much can be identified as probably loomweight based on the fabric.

Eight different fabrics were encountered (Table 4). Fabrics are restricted to specific types of objects and periods; e.g. all Bronze Age loomweights are in F3, and all briquetage vessel fragments (all Period 2) are in F8. F1 and F2 are the most common fabrics, occurring in contexts of all periods (in some cases residual) and a vast proportion of clay in this fabric, often badly fragmented and abraded, is likely to be from triangular loomweights.

Fabrics	Description
F1	Orange, silty fabric with common chalk pellets to 7mm, rare fine quartz, rare organic temper, rare calcereous flint to 13mm and rare iron oxides to 2mm
F2	Orange fabric with rare fine quartz, rare coarse quartz, rare organic temper and rare pebbles to 7mm.
F3	Orange fabric with rare organic temper, rare calcinated flint to 20mm and rare calcereous inclusions to 3mm. Rare fine, coarse and very coarse quartz to 3mm.
F4	Orange fabric with common cream streaks, rare fine quartz and rare organic temper.
F5	Orange, fine friable fabric with rare organic temper, rare crushed flint to 11mm and rare chalk to 4mm.
F6	Orange fabric with rare coarse quartz and rare chalk to 3mm
F7	Orange fabric with rare fine quartz, rare chalk to 2mm and rare organic temper
F8	Orange, silty fabric with common organic temper. Some with rare chalk inclusions to 2mm.

TABLE 4: Fired clay fabric descriptions

A small assemblage comprising five briquetage container sherds was found, mainly in Area 3. All five are in F8. Only two thicknesses could be measured, with a sherd from fill [441] in G37 ditch segment [443], measuring 13mm thick, and one from fill [433 / 434], G36 in ditch segment [450], measuring 15mm thick. The latter is a flat rim with slight external flange and finger streaks where the outer surface was smoothed over. Sherds are small and abraded and vessel form cannot be established.

Worked Stone, by Hilary Major and Ros Tyrrell

A small amount of worked stone was recovered, comprising seven fragments of lava quern from both Late Iron Age to Early Roman (4/38g) and medieval (3/116g) deposits. The probable piece from a saddle quern in a dull non-calcareous fine / medium sandstone is from Phase 2.1 ditch G35 (fill 398, segment 359). The assemblage also includes two fine sandstone cobbles, probably utilised as rubbers, both of which are from Late Iron Age to Early Roman deposits.

The only other piece of worked stone consists of a truncated pyramidal chalk object, probably an unfinished or spoilt spindle whorl (Fig. 11.20). It has three sides, two of which slope, the other being vertical. The 'top' has been roughly flattened, but the 'bottom' is more irregular, either through erosion, or possibly because the object was not finished. A slight groove along one face at the bottom may represent an unfinished cut. The object has been drilled vertically through the centre from both faces, forming an hourglass-shaped perforation.

20. RF <27> chalk spindle whorl (Fig. 11.20)

(366) G35 ditch segment 358; Period 2

Unfinished? Truncated pyramid with central drilled hole. L32mm, W31mm, T23mm (max), W16g

Slag, by Hilary Major and Ros Tyrrell

The excavations recovered forty-five pieces of slag, weighing 783g, from twelve contexts. The majority of the assemblage is of Late Iron Age to Early Roman date though three pieces (62g) are possibly modern as they were discovered in post-medieval / modern ditch G3. The Late Iron Age to Early Roman slag all looks very similar; light in colour and weight, with large vesicles, almost vitrified in places, with occasional flint inclusions, and is probably domestic fuel ash waste. The slag from ditch G3 is denser and darker in colour, but still could be of domestic origin rather than associated with iron smithing.

Human bone, by Lucy Sibun

A single, inhumation [150] was encountered in undated grave [185 within the east end of Area 1. The preservation of the human bone was good but all skeletal elements were extremely fragmented. Disarticulated fragments were also recovered from fill [173] in nearby pit [174].

A complete skeletal and dental inventory has been produced for skeleton [150]. Age estimation is based upon epiphyseal fusion data (Schaefer *et al.* 2009) and dental wear (Brothwell 1981). Due to the fragmentary nature of the remains no sexually dimorphic fragments were present and no metrical data was available. All skeletal elements, including those from pit [174], were examined for pathological lesions.

Inhumation [150] was incomplete and no complete elements present (Table 5). Included amongst the remains were loose teeth from the maxilla and mandible, with thirteen of the possible thirty-two adult teeth present.

	Left		Right
Cranium		Highly fragmented	
Mandible		✓	
Humerus	✓		✓
Vertebrae		Cervical, thoracic and lumbar fragments	
Scapula	✓		✓
Clavicle	✓		✓
Radius	✓		
Ulna	✓		✓
Carpals			✓
Phalanges			✓
Ribs	✓	Fragments only	
Innominate	✓		✓
Sacrum		Fragments only	
Femur	✓		✓
Patella			✓
Tibia	✓		✓
Fibula			✓

TABLE 5: Surviving skeletal elements of inhumation [150]

Based upon epiphyseal fusion data the individual represented by inhumation 150 is a young adult and this is supported by tooth wear analysis. Sexing and estimation of stature were not possible. No pathological lesions were noted on the skeleton but a difference was noted in the humeral shafts, with the distinctly more robust right humerus perhaps indicative of a right-handed individual.

The small quantity of human bone recovered from pit [174] were in a poor state of preservation. The largest fragment was 45mm in length and all fragments had suffered some surface erosion. Most of the surviving elements comprised long bone fragments, but six loose adult teeth were also present and the minimum number of individuals (MNI) for the assemblage was one. Unfortunately, there were no fragments that could be used for accurate age or sex estimations but all the teeth are unworn, suggesting a younger adult. No pathological lesions were noted.

Cremated bone

Cremated human bone was recovered from a total of four deposits [426, 432, 451 and 598] from the four G51 cremation burials. Recording and analysis of the bone followed the procedures outlined by McKinley (2004). Age estimations were carried out with reference to Bass (1987), Buikstra and Ubelaker (1994) but were only possible as adult or probable adult. No sex estimations were possible. One of the cremations is almost certainly Late Iron Age [451], one probably Late Iron Age [598] and two possibly Late Iron Age [426 and 432]. Of these, only [451] was recovered from a vessel. All deposits were recovered and processed as bulk soil samples. The results of analysis are presented in Table 6.

Group Number	Context	frag size	weight per skeletal element (g)				% of whole	total	
			skull	axial	Upper limb	Lower limb			unident
G51	426	0-4					7.7	18.8	41.0
		5-10	6.3	0.7		1.9	15.4	59.3	
		11-20	2.3	0.5	4.4	1.8		21.9	
<i>Percentage of identifiable fragments</i>			48	6.7	24.60	20.7			
G51	432	0-4					7	1	686.3
		5-10	33.9	0.9			203.1	34.7	
		11-20	82.5	24.4	51.8	74.6	115.2	50.8	
		21-30	24	2.5	25.9	28		11.7	
		30+				12.5		1.8	
<i>Percentage of identifiable fragments</i>			38.9	7.7	21.50	31.9			
G51	451	0-4					246.4	20.6	1195.7
		5-10	35.1	10.4	30.1	6.1	325	34	
		11-20	94.3	41.2	67.3	111.2	60.2	31.3	
		21-30	41.4	20.5	8.9	81.3		12.7	
		30+				16.3		1.4	

<i>Percentage of identifiable fragments</i>			30.3	12.8	18.80	38.1			
G51	598	0-4					14.8	15.8	93.6
		5-10	9.5				26.8	38.8	
		11-20	10.8		10.4	6.9		30	
		21-30			6.2	8.2		15.4	
<i>Percentage of identifiable fragments</i>			39		31.90	29			

TABLE 6: Summary of results from analysis of cremation burials

The burials appeared to contain the remains of single, adult individuals. Unfortunately, it was not possible to estimate age more precisely. The assemblages did not contain any sexually dimorphic fragments and no pathological lesions were noted.

The assemblages range from 60% to 100% calcined with fragments the resulting off-white colour. The remaining fragments are grey or black in colour. The only efficient cremation, with temperatures reaching in excess of 600°C (McKinley 2004, 11) was [451], which was also the only assemblage to be recovered from a vessel. The other assemblages were between 60% [432] and 85% [598] calcined, suggesting a less efficient cremation process at lower temperatures. The internal surfaces of fragments were grey / black in many cases and in some instances entire fragments were charred black or grey. This variation could result from different areas of the skeleton being subjected to different temperatures throughout the pyre, but all areas of the skeleton seem to have been equally affected.

The quantities of cremated bone recovered ranged from 41.0g in [426] to 1195.7g in [451] with a mean average of 504.15g. The 1195g represent approximately 73% of the expected weight of cremated bone produced by an adult, whilst the fragments from [426] represent approximately 2.5% (McKinley 1993, 285). It is also worth noting that the 1195g was recovered from the urned cremation burial [445] and was therefore protected.

Un-urned cremation burials without the protection of a vessel are usually highly fragmented, with large percentages of the bone assemblage being recovered from the smaller fractions. In this assemblage there was no apparent difference between the urned and un-urned burials, with the majority, between 34% and 59%, being recovered from the 0-4mm and 5-10mm

fractions in all but one burial [432]. In [432] the majority was recovered from the 11-20mm fraction.

All cremation burials contained fragments identifiable to skeletal area. The axial skeleton was represented in all but one assemblage and consistently formed the smallest percentage of the identifiable fragments (6.7-12.8%). With the exception of cremated bone deposit [451], skull fragments formed the majority of identifiable fragments (between 39% and 48%). Lower limb fragments constituted the majority in [451] (38%) and between 20% and 31% in the other assemblages. The upper limb comprised between 19% and 32%. As the deposits were not excavated in spits it was not possible to assess spatial patterning within each burial.

It is not surprising that the largest single fragment, which was from a femoral shaft and measured 53mm, was from [451], which had the protection of a vessel. However, un-urned burial [432] also produced a fragment of over 30mm (36mm). Smaller elements of the skeleton, for example tooth roots and small bones of the hands and feet, were recovered from all four assemblages. McKinley suggests that this may be a reflection of the burial ritual, suggesting en-masse collection, rather than hand selection (McKinley 2006, 29). No animal bone was noted in any of the assemblages.

Animal bone, by Gemma Ayton

The animal bone assemblage includes 2166 fragments from phased contexts of which just 662 could be identified to taxa (Table 7). The assemblage is characterised by highly fragmented and poorly preserved specimens that have been recovered from pits and ditches dating from the prehistoric to the post-medieval periods, the majority deriving from Period 2 (Late Iron Age to Early Roman) features with insubstantial scatterings of bones recovered from other periods.

Period	No. of Fragments	Total NISP
1	10	7
2	2078	623
3	61	21
4	17	11
Total	2166	662

TABLE 7: The total number of fragments and NISP (Number of Identified Specimen) counts by period

The assemblage is dominated by domestic taxa, including cattle, sheep / goat, pig, horse, dog and domestic fowl, with very little evidence regarding the exploitation of wild mammals, birds or fish (Table 8).

Taxa	Period 1	Period 2	Period 3	Period 4
Cattle	1	174	12	3
Sheep/Goat	3	60	3	
Pig		81	2	
Horse		36		
Dog		6		
Roe Deer		1		
Large Mammal	1	167	2	6
Medium Mammal	2	93	2	2
Domestic Fowl		2		
Bird		1		
Eel		1		
Fish		1		

TABLE 8: NISP (Number of Identified Specimen Counts) by period

According to NISP counts (Table 8), the Period 2 assemblage is dominated by cattle followed by pig and sheep / goat. However, MNI calculations reveal that sheep / goat are the dominant taxa followed by cattle and pig respectively. The minimum number of individuals by species were six for cattle, seven for sheep / goat and three for pig.

The three main domesticates are represented by both meat bearing and non-meat bearing bones and no activity areas can be identified. The cattle and sheep / goat assemblages contain few epiphyseal ends though the majority of specimens that have survived are fused suggesting an older population with an emphasis on secondary products. The pig assemblage is dominated by unfused elements as pigs would have been raised primarily for meat.

The late Iron Age and Early Roman assemblages from the nearby villa at Chignall (Luff 1998) are similar in species composition with very few wild mammals and wild and domestic

birds represented. However, at Chignall, by contrast, cattle are the dominant species, a trend that is reflected at other high-status Roman sites (King 1989).

The analysis of the Late Iron Age / Early Roman animal bone assemblage from Roxwell Quarry suggests that animal husbandry activity focused on the rearing of domestic mammals, with wild and domestic birds and fish making minimal contributions to the diet. The continuing dominance of sheep / goat indicates that the Roman conquest had no immediate effect on the husbandry regimes.

Environmental Remains, by Lucy Allott

Small assemblages of macrobotanical remains and charcoal were recovered from samples taken during archaeological excavations at the site. A total of twenty-seven samples were taken from Late Iron Age / Early Roman, medieval and post-medieval / modern features to establish the presence and range of charred macrofossil remains, wood charcoal and other environmental remains such as fauna and mollusca. Features sampled include funerary related pit features, some of which contained burnt bone, deposits associated with skeleton [150], pits and ditches.

Method

Bulk samples were processed by flotation with both the coarse residue fraction and flots retained on 500µm meshes. The flots were subsequently weighed, measured and scanned under a stereozoom microscope at x7-45 magnifications. Identifications of macrobotanical remains have been made using modern comparative material and reference texts (Cappers *et al.* 2006, Jacomet 2006, NIAB 2004). Tabulations of the macrobotanical remains by sample number and context can be found in the site archive. Nomenclature follows Stace (1997). The term 'seed' in the text refers to fruiting bodies including nutlets and true seeds.

Overview of the assemblages

The majority of samples are from Late Iron Age / Early Roman features. The medieval and post-medieval periods are represented by single samples only. Very few identifiable macrobotanical remains were present in the medieval and post-medieval samples these are not considered further. The preservation of the charred macrobotanical remains was generally poor to moderate. Many of the cereals were fragmented and could not be conclusively identified beyond genus. Other macrobotanical remains were also often fragmented although

there are a few well preserved examples such as the grape pip (*Vitis vinifera*) and possible sloe (*Prunus cf. spinosa*) stone. Wood charcoal fragments were comparatively infrequent. Undated pit [74] and Late Iron Age or earlier cremation [597] were the only features rich in wood charcoal fragments. Most fragments measured less than 4mm in size and frequently less than 2mm. The assemblage in pit [74] composed charred twigs as well as fragments from mature wood.

Funerary related features

Cremation pits [425, 431 and 597] in the north part of Area 3 contained very few macrobotanical remains or wood charcoal fragments. Occasional poorly preserved cereal caryopses, a fragment of common pea or a vetch / wild pea, a small grass caryopsis, a sedge nutlet and a possible sloe stone were identified. The origin of these remains is unknown and such small assemblages cannot be attributed with any certainty to the deliberate introduction of important food items within the pyre. Instead, all of these plant remains could originate from other sources. The cereals, grass seed and sedge may for example have been incorporated in kindling and the sloe stone could have been brought in with wood fuel. Onion couch grass tubers were also recorded in two other funerary related pits both of which also contained burnt bone fragments. Locally such tubers have also been recorded in Roman cremation deposits at Handford House, Colchester (Fryer 2010) and Early Saxon cremations at Springfield Lyons, Chelmsford (Murphy 1990). This invasive crop weed is relatively common in cremations in Britain and their presence is often attributed to either their deliberate use as tinder or their introduction with cereals from arable fields and / or grasses from ungrazed land that might have been uprooted for tinder (Robinson 1988).

Ditches

Late Iron Age / Early Roman ditch segments produced small assemblages of macrobotanical remains and small infrequent flecks of wood charcoal. Two of the samples from segments 108 and 347 of ditches G23 and G46 respectively contained no macrobotanical remains, while only small assemblages of charred cereal caryopses (including some wheat) and vetch / wild pea or common pea fragments, seeds of brome grass, knotgrass and ribwort plantain were recorded. These provide some evidence for grassland vegetation.

Pits

Primary fill [479] of Phase 2.1 pit [480] produced only a single fragment of vetch / wild pea / common pea while secondary fill [478] contained a more diverse range of macrobotanicals including cereal caryopses of wheat and barley, a hazel nut shell fragment, grass seed and vetch / wild pea. Of interest is an amalgam of charred plant remains of unknown origin. These are primarily unidentifiable, however a barley grain is enclosed in the mixture and given the presence of other remains consistent in morphology with seed coat fragments which may also derive from cereal caryopses, the amalgam may represent waste from grain that was processed, perhaps by grinding.

Conclusions

The samples from Roxwell Quarry provide little indication of the range of cereal and non-cereal crops cultivated or the associated arable practices during the Late Iron Age / Early Roman occupation. The scarcity of evidence equates well with that noted by Murphy (1990) at Springfield Lyons. Alongside the wheat and barley crops the weed / wild seed assemblage hints at the presence of grassland vegetation although a detailed description of this habitat is not possible. Onion couch grass could be interpreted as evidence for ungrazed grassland or it could equally have been a troublesome weed amongst cereal crops. Edible fruits and nuts do not make up a large component of the assemblage. The sloe stone and hazel nut shell are most likely incidental inclusions in the fills of the cremations and pits respectively. Although the charred grape pip is more likely to derive from food remains, its association with skeleton [150] may be incidental occurring only as a component of the grave backfill rather than as a deliberately placed item.

DISCUSSION

The later prehistoric and Late Iron Age enclosures at Roxwell Quarry probably represent areas of agricultural activity close to settlement sites, the precise locations of which are not archaeologically identifiable or were located outside the excavation areas and have yet to be discovered. The pottery and the many fragments of Late Bronze Age and Iron Age loomweights probably relate to the undertaking of activities within a domestic context, as do the Globular Urns from Late Bronze Age pit [231].

If structure G9 represents a Middle Iron Age granary, as is suggested, then it was probably closely accompanied by a settlement, even though no farmstead remains have been found to confirm this. Examples of Iron Age four-post granaries are common in the archaeological

record and are normally located in domestic sites alongside houses. Good examples of this are provided by the Middle Iron Age 'village-like' settlements at Little Waltham, and at St Osyth, near Clacton (Drury 1978, 11-37 and 124; Germany 2007, 43-58). Explanations for close association between granaries and houses are ease of access and safe-guarding of the granaries' contents from vermin and thieves.

The later prehistoric settlements which are conjectured to have been present either within or close to Roxwell Quarry are likely to have accorded with the defining characteristics of Cunliffe's later prehistoric British Eastern Zone, an area roughly matching that of present-day East Anglia, Lincolnshire and south Yorkshire, the settlement pattern of which probably composed steadily increasing numbers of dispersed homesteads and 'village-like' settlements (Cunliffe 2005, 586-588). Examples of later prehistoric homesteads and 'villages' have been found within the wider localities of Roxwell and Chelmsford and are in full accordance with Cunliffe's defining characteristics. They include Late Bronze Age ring-work settlements at Great Baddow and Springfield Lyons, and the Middle Iron Age 'village-like' settlement at Little Waltham (Brown and Lavender 1991 and 1994; Brown and Medlycott 2013; Drury 1978). Other examples are the Middle and Late Iron Age round-houses within individual enclosures at nearby Chignall Hall and south of the Roman villa at Chignall St James (Bedwin 1987; Clarke 1998).

A period of depopulation, dislocation and change is posited to have inflicted the native inhabitants of the area of Stansted during the half century or more following on from the Roman invasion of Britain in AD43 (Cooke *et al* 2008). This can be suggested to have also taken place at Chignall, Roxwell and Chelmsford, although the evidence for it is not as strong as it is for Stansted, probably due to the latter having witnessed a greater amount of archaeological investigation. One of two pieces of supporting evidence for disruption also having taken place within central Essex is the Late Iron Age settlement near the villa site at Chignall St James (Clarke 1998), since it appears not to have continued for long into the Roman period, and thus can be suggested to have been a victim of the imposition of the Roman villa. The other is the pre-Roman settlement of round-houses which was discovered beneath one of the two early Roman forts in the middle of Chelmsford. In that case it can be suggested to have been a fatality of the Roman military, although the dating evidence for it is too imprecise to make it more certain (Wickenden 1996).

If the second half of the 1st century AD was a period of dislocation for the native inhabitants of central Essex as well as Stansted, then its effects on the Phase 2.2 enclosures at Roxwell Quarry may have been to finish off an already existing process of steady decline, since the stratigraphic and pot-dating evidence strongly suggest that the Phase 2.2 ditches were largely filled up and were probably no longer in use by the mid 1st century AD. The archaeological work has found no direct evidence for the settlement, which would have been associated with the Phase 2.1 enclosures, although if its condition ran parallel with that of its enclosures then it too would have been in a state of decline by the beginning of the second half of the 1st century AD.

The enclosures of Phase 2.2 are clearly more regular than their previous counterparts and may have been an attempt to revitalise use of the site for agriculture by adopting a more managed approach to food production during the period immediately following the Roman conquest. If this was so then it was ultimately unsuccessful because their dating evidence probably implies that they were no longer in use by the middle part of the second half of the 1st century AD. An additional explanation for the mid 1st century AD change in form and layout is that it indicates a change in practice, perhaps a shift from animal husbandry towards growing of crops, since the generally perpendicular and more regular form of the Phase 2.2 set of enclosures would have made them easier to plough. Examples of irregular-looking Iron Age enclosures similar to those of Roxwell Phase 2.1 are not uncommon, but are seldom so wayward. It may be that their irregular form is a consequence of a chain of ad hoc events, rather than thoughtful pre-planning, although it could be that their eccentric form was in some way more facilitating to handling of sheep and cattle. It is not known if the introduction of the formal-looking enclosures of Phase 2.2 is due to Roman incomers and / or of the site's original owners adopting new practices.

The animal bone assemblage is too small and fragmented to be very informative, although it suffices to indicate that some of Roxwell's occupants were keeping and / or consuming sheep, cattle, pigs, horses, dogs and domestic fowls. Cattle and sheep are likely to have been the mainstays of this animal husbandry since both provide milk, meat and leather, sheep provide wool, and cattle can also be used to pull wagons and ploughs. The spindle whorl and the many fragments of Iron Age loom-weights, most of which come from the large ditches of Area 3, imply use of wool in making of clothes and blankets. Additional evidence for the

local terrain's suitability for animal husbandry is that cattle farming was a mainstay of the economy of the nearby Roman villa (Clarke 1998).

Evidence to indicate that the occupants of Roxwell Quarry were initially moderately-high status includes the pieces of early imported ceramic wares and the non-ferrous metalwork as they embrace four brooches, a pair of tweezers, an unusual hollow-sheet bracelet, and a copper-alloy toilet set of nail cleaner and toilet spoon on a penannular ring. The individual represented by cremation burial [445] is likely to have been fairly wealthy and influential since four of the aforementioned non-ferrous metal items, including the hollow-sheet bracelet, come from that grave. The other cremation burials [425, 431 and 597] are insecurely dated, but are perhaps people of lower social status since their graves contain no artefacts. The early imported pottery vessels suggest emulation of Gallo-Roman culinary and wine-drinking culture, a product of long-standing exchange networks between Cunliffe's British Eastern Zone (Cunliffe 2005, 586-588) and mainland Europe.

Cremation burial during the Late Iron Age period probably first appeared in east and south-east England from the beginning of the 1st century AD onwards as links with Gaul increased (Cunliffe 2005, 559), but probably never amounted to anything more than a minority practice, in relation to the earlier and continuing rite of excarnation. Graves [425, 431, 445 and 597] can be categorised as being of Aylesford-type, which are generally typified by solitary or small groups of burials, sometimes in pottery vessels and sometimes accompanied by grave goods. Aylesford-type burials have been found at Stansted and the Stansted to Braintree section of the A120 bypass (Timby *et al* 2007, 117-138; Cooke *et al.* 2008, 121-4), but are less common within central Essex, although this apparent sparcity has now been partly rectified by those at Roxwell.

Inhumation [150] and the contents of pit [174] in the east end of Area 1 possibly represent a cemetery site of at least two individuals. Both sets of bones remain undated, but are perhaps Roman or Early Saxon because of the north-south orientation of inhumation [150], making it unlikely that they are Christian. If the skeletal contents of [150] and pit [174] are Roman then they are possibly remnants of late Roman tenant farmers, comparable to those of the late Roman cemetery at nearby Chignall St James (Clarke 1998, 140-141).

The latest features at Roxwell are of medieval and post-medieval to modern date and largely comprise pits, field and trackway ditches. The medieval features have produced sherds of pottery associated with both domestic and working areas and are probably connected with a nearby 13th-century peasant holding, the location of which remains undiscovered. Peasant holdings were commonplace in the rural landscape during the medieval period and if one had been sited near Roxwell Quarry then it is not remarkable. Common occurrence of medieval remains is further demonstrated by the strip fields and the 13th-century building remains at Chignall Hall and Stevens Farm (Brooks 1992) (Fig. 1).

The post-medieval / medieval ditches relate to an agrarian landscape that is likely to have developed from medieval antecedents and to have been occasionally amended and altered during its subsequent use. The trackway defined by ditches G23 and G24 is probably a short-lived haul road related to mineral extraction and the large, un-investigated sub-square post-medieval / modern pit in the middle of Area 3.

Acknowledgements

The archaeological fieldwork was undertaken by ECC Field Archaeological Unit and reported on by both former ECC FAU and current UCL Archaeology South-East specialist staff. Lafarge Redland is thanked for commissioning and funding the archaeological fieldwork. Various stages of the archaeological fieldwork were supervised in turn by Stuart Gibson, Andrew Robertson, Mark Germany and Mark Peachey. The stratigraphic analysis was carried out by Patrick Allen and Mark Germany, and the specialist reporting by Gemma Ayton, Nigel Brown, Anna Doherty, Karine Le Hégarat, Nick Lavender, Hilary Major, Hazel Martingell, Scott Martin, Elke Raeman, Lucy Sibun, Ros Tyrrell and Helen Walker. Figures 1 to 8 were drawn by Andrew Lewsey, and 9 to 11 by Fiona Griffin.

BIBLIOGRAPHY

Barford, P.M. 2002, *Excavations at Little Oakley, Essex, 1951-78. Roman Villa and Saxon Settlement*. E. Anglian Archaeol. 98

Bass, W. 1987, *Human Osteology: a Laboratory and Field Manual*. 3rd special publication no. 2 of the Missouri Archaeological Society, Columbia

Bedwin, O. 1987, 'Chignall St. James, Chignall Hall', in Priddy, D., 'Work of the Essex County Council Archaeology Section 1986'. *Essex Archaeol. Hist.*, 3rd Series, 18, 92

Bellows, J. 1881, 'On some bronze and other articles found near Birdlip'. Trans. Bristol Gloucestershire Archaeol. Society 5, 137-41

Biddulph, E, Jones, G.P, and Stansbie, D. 2007, 'Late Iron Age and Roman pottery', in Timby, J., Brown, R., Biddulph, E., Hardy, A. and Powell, A. 2007, *A Slice of Rural Essex: Archaeological Discoveries from the A120 between Stansted Airport and Braintree*. Oxford Wessex Archaeology Monograph 1 CD-ROM

Brooks, H. 1992, 'Two rural medieval sites in Chignall St James: excavations 1989'. *Essex Archaeol. Hist.* 3rd series, 23, 39-50

Brothwell, D. 1981, *Digging Up Bones*. Cornell University Press

Brown, N. 1988, 'A Late Bronze Age Enclosure at Lofts Farm, Essex'. *Proc. Prehist. Soc.* 54, 249-302

Brown, N. and Lavender, N. 1991, 'Great Baddow', in Gilman, P.J. (ed.), 'Excavations in Essex 1990'. *Essex Archaeol. Hist.* 3rd Series, 22, 153-154

Brown, N, and Lavender, N. 1994, 'Later Bronze Age sites at Great Baddow and settlement in the Chelmer valley, Essex, 1500 to 500 BC'. *Essex Arch. Hist.* 3rd series, 25, 3-13

Brown, N, and Medlycott, M. 2013, *The Neolithic and Bronze Age Enclosures at Springfield Lyons, Essex: Excavations 1981-1991*. E. Anglian Archaeol. 149

Buikstra, J.E, and Ubelaker, D.H. 1994, *Standards for data collection from the human skeleton*. Arkansas Archaeological Survey Research Ser. 44. Fayetteville, Arkansas

Butler, C. 2005, *Prehistoric Flintwork*. Tempus (Stroud)

Cappers, R.T.J, Bekker R.M, and Jans J.E.A. 2006, *Digital Seed Atlas of the Netherlands*. Groningen Archaeological Ser. 4. Barkhuis. (Netherlands)

Cheer, P. 1998, 'Late Iron Age pottery', in Carter, G.A., *Excavations at the Orsett 'Cock' Enclosure, Essex, 1976*. E. Anglian Archaeol. 86, 89-93

Clark, J. 1995, *The Medieval Horse and its Equipment c.1150-1450*. Medieval Finds from Excavations in London 5

Clarke, C.P. 1998, *Excavations South of Chignall Roman Villa, Essex, 1977-81*. E. Anglian Archaeol. 83

Clifford, T. 2013, 'Personal adornment and dress Accessories – brooches', in: Perring, D. and Pitts, M., *Alien Cities: Consumption and the Origins of Urbanism in Roman Britain*, 195-204

Cooke, N., Brown, F., and Philpotts, C. 2008, *From Hunter Gatherers to Huntsmen. A History of the Stansted Landscape*. Framework Archaeology Monograph 2

Cotter, J. 2000, *The Post-Roman Pottery from Excavations in Colchester 1971-85*. Colch. Archaeol. Rep. 7

Crummy, N. 1983, *The Roman Small Finds from Excavations in Colchester 1971-9*. Colch. Archaeol. Rep. 2

Crummy, N. 2008, *Artefacts and Society in Roman and Medieval Winchester. Small finds from the Suburbs and Defences, 1971-1986*. Winchester Museums Services

- Crummy, N. and Eckhardt, H. 2003, 'Regional identities and technologies of the self: nail cleaners in Roman Britain'. *Archaeol. J.* 160, 44-69
- Crummy, P., Benfield, S., Crummy, N., Rigby, V. and Shimmin, D. 2007, *Stanway: an Elite Burial Site at Camulodunum*. Britannia Monogr. Ser. 24 (London)
- Cunliffe, B. 2005, *Iron Age Communities in Britain* (4th edn, London)
- Cunningham, C. 1985, 'A typology for post-Roman pottery in Essex', in Cunningham, C.M. and Drury, P.J., *Post-Medieval Sites and their Pottery: Moulsham Street, Chelmsford*. Chelmsford Archaeol. Trust Rep. 5, Counc. Brit. Archaeol. Res. Rep. 54, 1-16
- Department of the Environment. 1990, *Planning Policy Guidance 16: Archaeology and Planning*. HMSO
- Drury, P.J. 1978, *Excavation at Little Waltham 1970-71*. Counc. Brit. Archaeol. Res. Rep. 26; Chelmsford Excavation Committee Rep. 1
- Drury, P.J. 1993, 'The later Saxon, medieval and post-medieval pottery', in Rodwell, W.J. and Rodwell, K.A., *Rivenhall: Investigations of a Villa, Church and Village, 1950 – 1977*. Chelmsford Archaeol. Trust Rep. 4.2, Counc. Brit. Archaeol. Res. Rep. 80, 78-95
- Fitzpatrick, A. 2013 'Call for finds: Late Iron Age circular knives'. *Later Prehistoric Finds Group Newsletter Issue 2*, 21
- Ford, S. 1987, 'Chronological and functional aspects of flint assemblages', in Brown, A. and Edmonds, M. (eds), *Lithic Analysis and Later British Prehistory*. Brit. Archaeol. Rep. Brit. Series 162, 67-81 (Oxford)
- Fryer, V. 2010, 'Charred plant macrofossils and other environmental remains', in Orr, K., *Archaeological Excavations at 1 Queens Road (Handford House, now 'Handford Place'), Colchester, Essex 2003 and 2004-2005*. Colch. Archaeol. Trust Rep. 323

Fulford, M. and Timby, J. 2001, 'Timing devices, fermentation vessels, ritual piercings? A consideration of deliberately holed pots from Silchester and elsewhere'. *Britannia* 32, 293-297

Germany, M. 2007, *Neolithic and Bronze Age Monuments and Middle Iron Age Settlement at Lodge Farm, St Osyth, Essex*. E. Anglian Archaeol. 83

Going, C.J. 1987, *The Mansio and other Sites in the South-Eastern Sector of Caesaromagus: the Roman Pottery*. Counc. Brit. Archaeol. Res. Rep. 62

Haffner, A. 1971, *Das Keltisch-Römische Gräberfeld von Wederath-Belginum I*, Trierer Grabungen and Forschungen 6, 1-2

Haffner, A. 1974, *Das Keltisch-Römische Gräberfeld von Wederath-Belginum II*, Trierer Grabungen and Forschungen 6, 1-2

Hawkes, C.F.C. and Hull, M.R., 1947, *Camulodunum: first report on the excavations at Colchester 1930-39*, Rep. Res. Committee Soc. Antiq. London 14

Hill, J.D. 1997, 'The end of one kind of body and the beginning of another kind of body? Toilet instruments and Romanisation in southern England during the first century AD', in Gwilt, A. and Haselgrove, C. (eds), *Reconstructing Iron Age Societies* (Oxford), 96-107

Hill, J.D., Evans, C. and Alexander, M. 1999, 'The Hinxton Rings. A Late Iron Age cemetery at Hinxton, Cambridgeshire, with a reconsideration of Northern Aylesford distributions'. *Proc. Prehist. Soc.* 65, 243-273

Horsley, K. and Wallace, C.R. 1998, 'The Late Iron Age and Roman pottery', in Wallis, S. and Waughman, M., *Archaeology and the Landscape in the Lower Blackwater Valley*. E. Anglian Archaeol. 82, 142-157

Hull, M.R. 1958, *Roman Colchester*. Rep. Res. Committee Soc. Antiq. London, 20

Hull, M.R. 1963, *The Roman potter's kilns of Colchester*. Rep. Res. Committee. Soc. Antiq. London, 21

Inizan, M.L., Reduron-Ballinger, M., Roche, H. and Tixier, J. 1999, *Technology and Terminology of Knapped Stone. Tome 5*. Cercle de Recherches et d'Etudes Préhistoriques (CREP), Nanterre

Jackson, R. 1986, 'A set of Roman medical instruments from Italy'. *Britannia* 17, 119-167

Jacomet, S. 2006, *Identification of Cereal Remains from Archaeological Sites*. 2nd ed. Archaeobotany Laboratory, IPAS, Basel University. Unpublished manuscript

King, A.C. 1989, 'Villas and animal bones', in Branigan, K. and Miles, D. (eds), *The Economies of Romano-British villas* (Sheffield), 51-59

Luff, R. 1998, 'The faunal remains' in Clarke, C.P., *Excavations south of Chignall Roman Villa, Essex, 1977-81*. E. Anglian Archaeol. 83

Major, H. 1998, 'Fired clay', in Carter, G.A., *Excavations at the Orsett 'Cock' Enclosure, Essex, 1976*. E. Anglian Archaeol. 86, 106-110

Manning, W.H. 1985, *Catalogue of the Romano-British Iron Tools, Fittings and Weapons in the British Museum*

Martin, T.S. 1996, 'A group of finds from the vicinity of the Noah's Ark Roman villa at Brightlingsea, Essex'. *Essex Archaeol. Hist.* 27, 311-319

McKinley J.I. 1993, 'Bone fragment size and weights of bone from modern British cremations and their implications for the analysis of archaeological cremations' *Int. J. Osteology*, 3, 283-7

McKinley, J.I. 2004, 'Compiling a skeletal inventory: cremated human bone', in Brickley, M. and McKinley, J.I. (eds), *Guidelines to the Standards for Recording Human Remains*. Brit.

Association for Biological Anthropology and Osteoarchaeology, and Institute for Field Archaeology, 9-12

McKinley, J. 2006, *Channel Tunnel Rail Link, London and Continental Railways. Human remains from section 1 of the Channel Tunnel Rail Link, Kent*. Oxford Wessex Archaeology.

Meddens, F.M. and Redknap, M. 1992, 'A group of kiln waste from Harding's Farm, Mill Green, Essex'. *Medieval Ceramics* 16, 11–43

Murphy, P. 1990, *Springfield Lyons, Chelmsford, Essex: Carbonised Plant Remains from Neolithic, Late Bronze Age, Iron Age, Roman, Early and Late Saxon Contexts*. Ancient Monuments Laboratory Rep. 11/90

Pearce, J.E., Vince, A.G. and White, R. 1982, 'A dated type-series of London medieval pottery part one: Mill Green ware'. *Trans. London Middlesex Archaeol. Soc.* 33, 266–298

Pearce, J.E., Vince, A.G. and Jenner, M. 1985, 'A dated type series of London medieval pottery part two: London-type ware'. *Trans. London Middlesex Archaeol. Soc. Special Paper* 6

Philpott, R. 1991, *Burial Practices in Roman Britain. A Survey of Grave Treatment and Furnishing, AD43-410*. Brit. Archaeol. Rep. British Ser. 219

Price, E. 2000, *Frocester. A Romano-British Settlement. It's Antecedents and Successors. Volume 2, the Finds*. (Stonehouse)

Raemen, E. forthcoming, 'The registered finds', in Heppell, E.M., 'A Prehistoric and Roman Landscape on the Tendring Plateau: Investigation at Hill Farm, Tendring 1997-8 and 2003', *Essex Archaeol. Hist.* 4th Series

Rahtz, P.A., Hirst, S. and Wright, S.M. 2000, *Cannington Cemetery. Excavations 1962-3 of Prehistoric, Roman, Post-Roman and Later Features at Cannington Park Quarry, near Bridgewater, Somerset*. Britannia Monograph 17

Robinson, M. 1988, 'The significance of the tubers of *Arrhenatherum elatius* (L.) Beauv.', in Lambrick, G., *The Rollright Stones, Megaliths, monuments and settlements in the prehistoric landscape*. English Heritage Archaeological Report 6. HBMC. (London)

Schaefer, M., Black, S., and Scheuer, L. 2009, *Juvenile Osteology: a Laboratory and Field Manual*. Academic Press

Scott, I. 2012, 'Metal objects from grave 4298', in Allen, T., Donelley M, Hayden, C. and Powell, K., *A Road through the Past: Archaeological Discoveries on the A2 Pepperhill to Cobham road scheme in Kent*. Oxford Archaeol. Monogr. 16, 290-295

Sealey, P. 1985, *Amphoras from the 1970 excavations at Colchester Sheepen*. (Oxford)

Stace, C. 1997, *New Flora of the British Isles*. Cambridge University Press (Cambridge)

Stead, I.M., Flouest, J.I. and Rigby, V. 2006, *Iron Age and Roman burials in Champagne*. (Oxford)

Thompson, I. 1995, 'Belgic pottery', in Wymer, J.J. and Brown, N.R., *Excavations at North Shoebury: Settlement and Economy in South-East Essex 1500BC – AD1500*. E. Anglian Archaeol. 107, 238-245

Timby, J., Brown, R., Biddulph, E., Hardy, A. and Powell, A. 2007, *A Slice of Rural Essex. Recent Archaeological Discoveries from the A120 between Stansted Airport and Braintree*. Oxford Wessex Archaeology Monogr. 1

Tyrrell, R. forthcoming, 'Baked clay objects', in Atkinson, M. and Preston P. *A Late Iron Age, Roman and Saxon Settlement at Elms Farm, Heybridge: Excavations 1993-5, Vol. 2*. ADS digital monograph

Van Endert, D. 1991, *Die Bronzefunde aus dem Oppidum von Manching*. Die Ausgrabungen in Manching 13

Vince, A.G. 1991, 'Early medieval London: refining the chronology'. *London Archaeol.* 6, 263-71

Walker, H. 1992, 'Medieval pottery', in Brooks, H., 'Two rural medieval sites in Chignall St James: excavations 1989'. *Essex Archaeol. Hist.* 3rd series, 23, 46-8

Walker, H. 2004, 'Medieval pottery', in Havis, R. and Brooks, H., *Excavations at Stansted Airport, 1986-91, Volume 2*. E. Anglian Archaeol. 107, 398-435

Walker, H. 2008, 'The medieval pottery', in Wade, A. and Havis, H., 'The archaeology of the A133 Little Clacton to Weeley bypass: Gutteridge Hall'. *Essex Archaeol. Hist.* 3rd series, 39, 19-33

Walker, H. 2012, *Heddingham Ware: a medieval pottery industry in north Essex; its production and distribution*. E. Anglian Archaeol. 148

Webster, J. 1975, 'Bronze and Silver', in Cunliffe, B, *Excavations at Portchester Castle. Volume 1. Roman*. Rep. Res. Committee Soc. Antiq. London 32

Wickenden, N.P. 1996, 'The Roman towns of Essex', in Bedwin, O. (ed.), *The Archaeology of Essex. Proceedings of the Writtle Conference*. Essex County Council Planning, 76-94

Figure and table captions:

Figure 1. Roxwell Quarry, site location

Figure 2. Areas 1 to 3

Figure 3. West end of Areas 1 and 2

Figure 4. Structures G7 and G9

Figure 5. East end of Area 1 and south end of Area 3

Figure 6. East end of Area 3

Figure 7. Cremation burial pit 445

Figure 8. Sections 1 to 4

Figure 9. Prehistoric pottery

Figure 10. Late Iron Age / Roman pottery

Figure 11. Registered finds

Table 1: Summary of the struck flint by period (* includes core preparation flakes)

Table 2: Late Iron Age and Roman pottery. Range of fabrics present

Table 3: Quantification of pottery by ware, feature (fill in brackets) and sherd count; the total weight of pottery per feature is also shown; R denotes the presence of Roman pottery

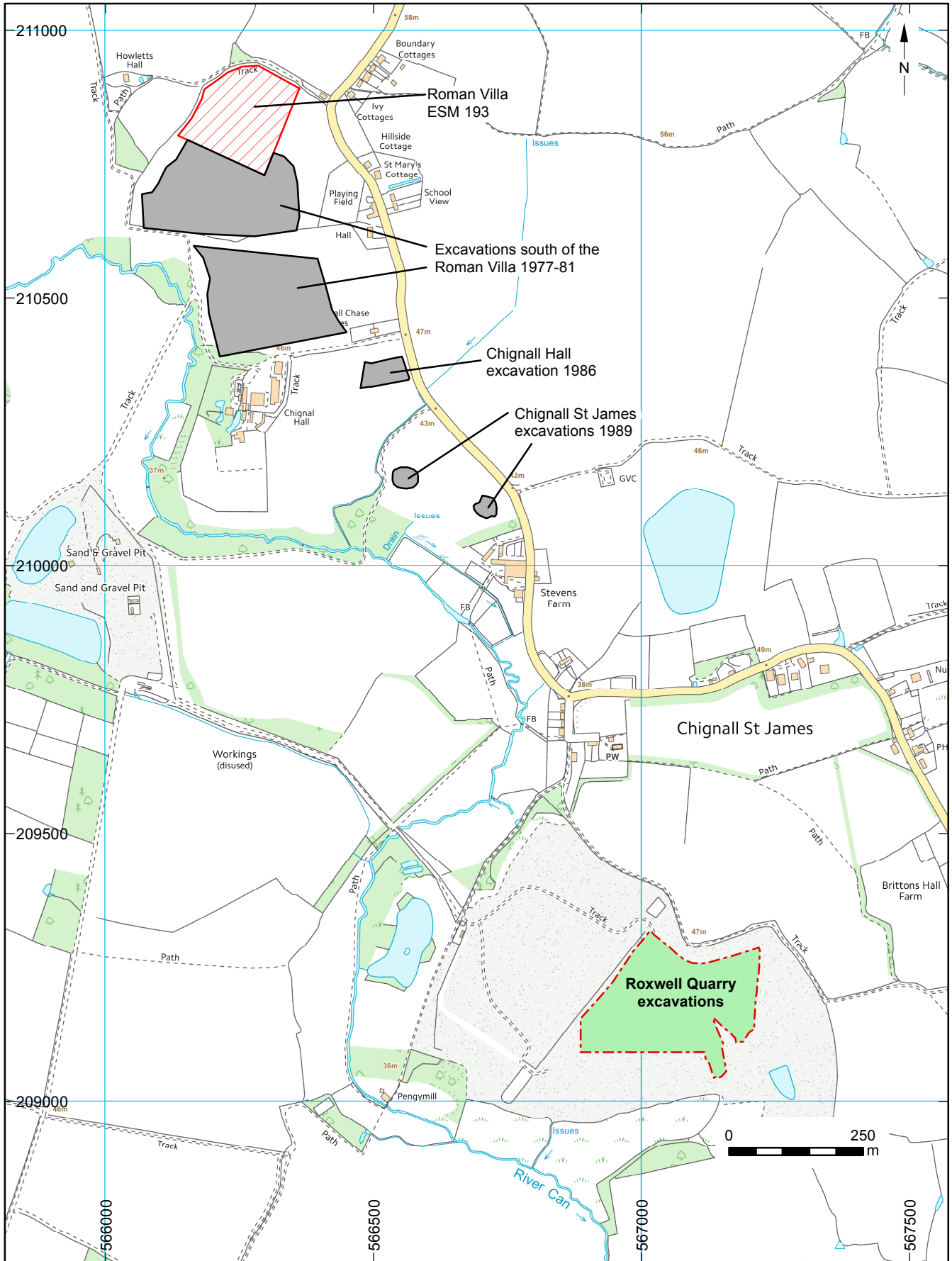
Table 4: Fired clay fabric descriptions

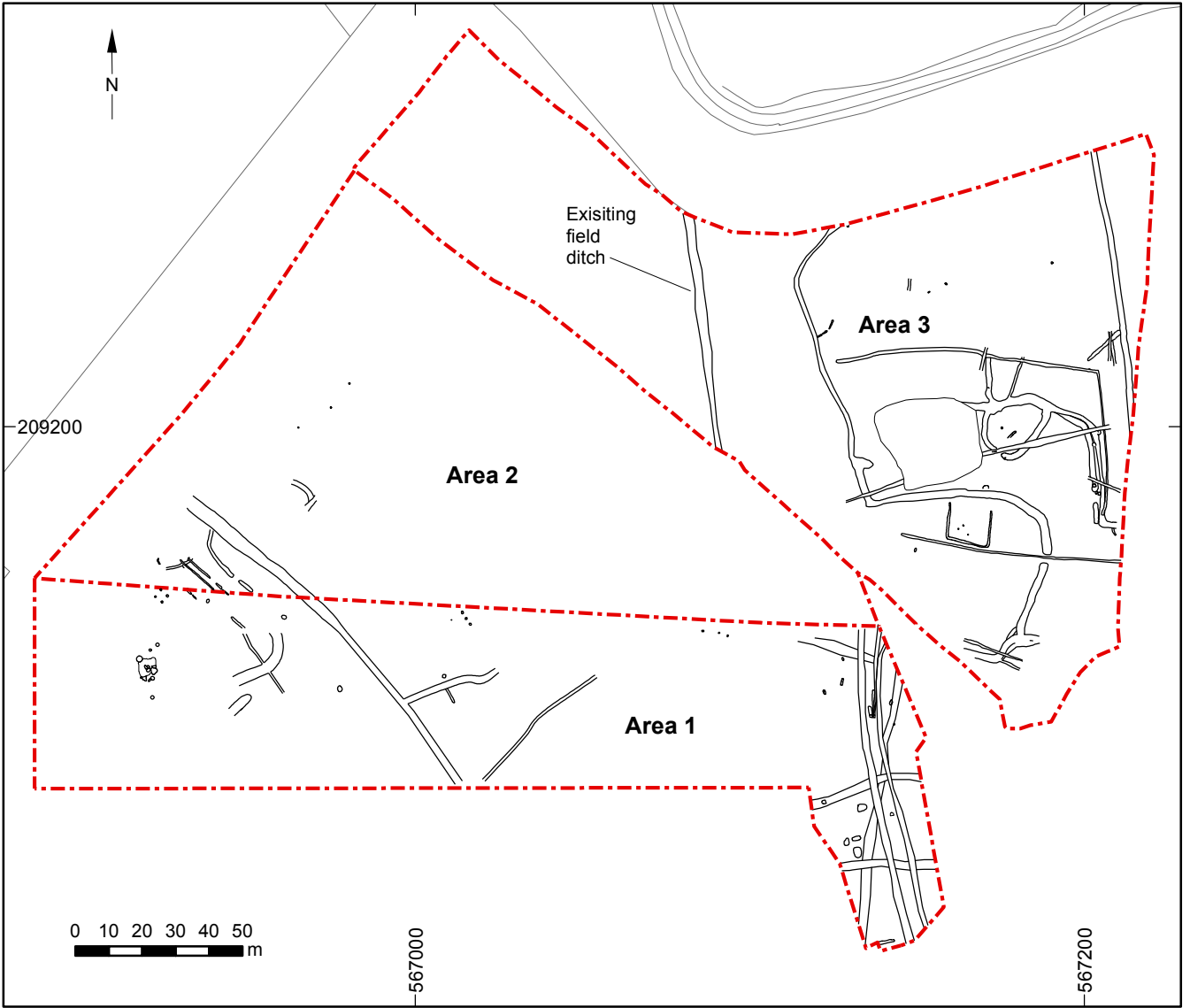
Table 5: Surviving skeletal elements of inhumation 150

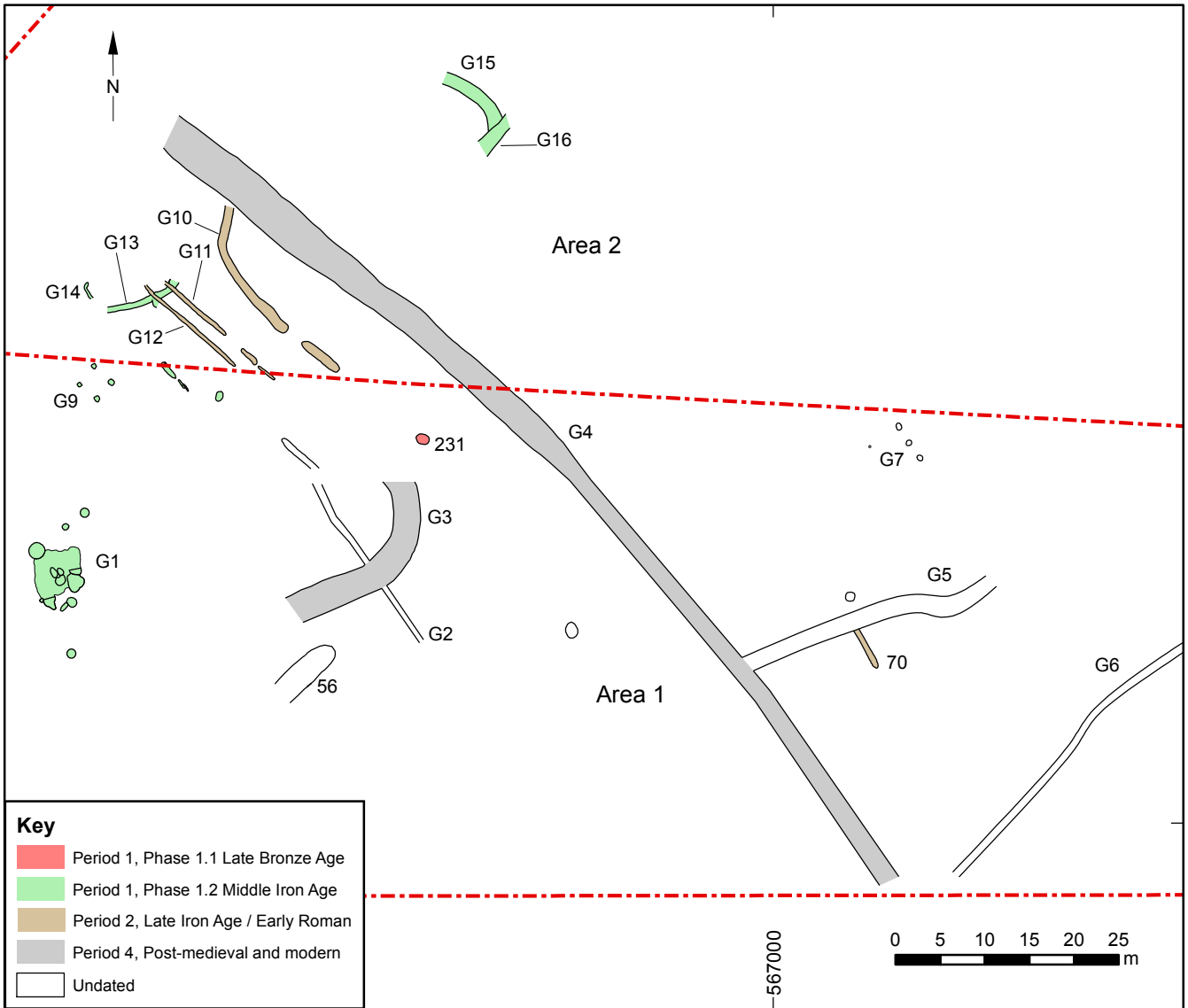
Table 6: Summary of results from analysis of cremation burials

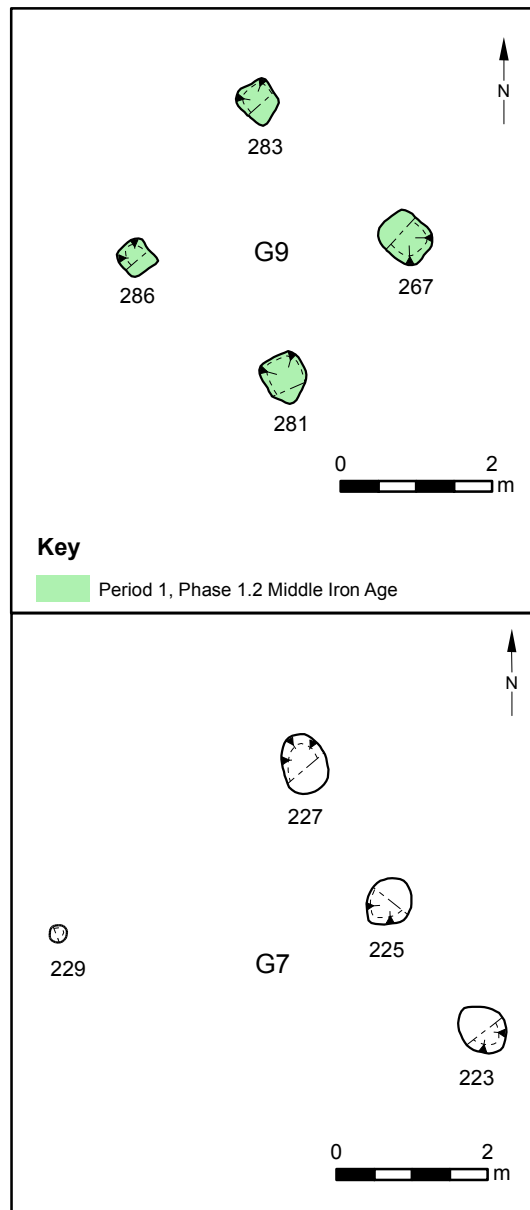
Table 7: The total number of fragments and NISP (Number of Identified Specimen) counts by period

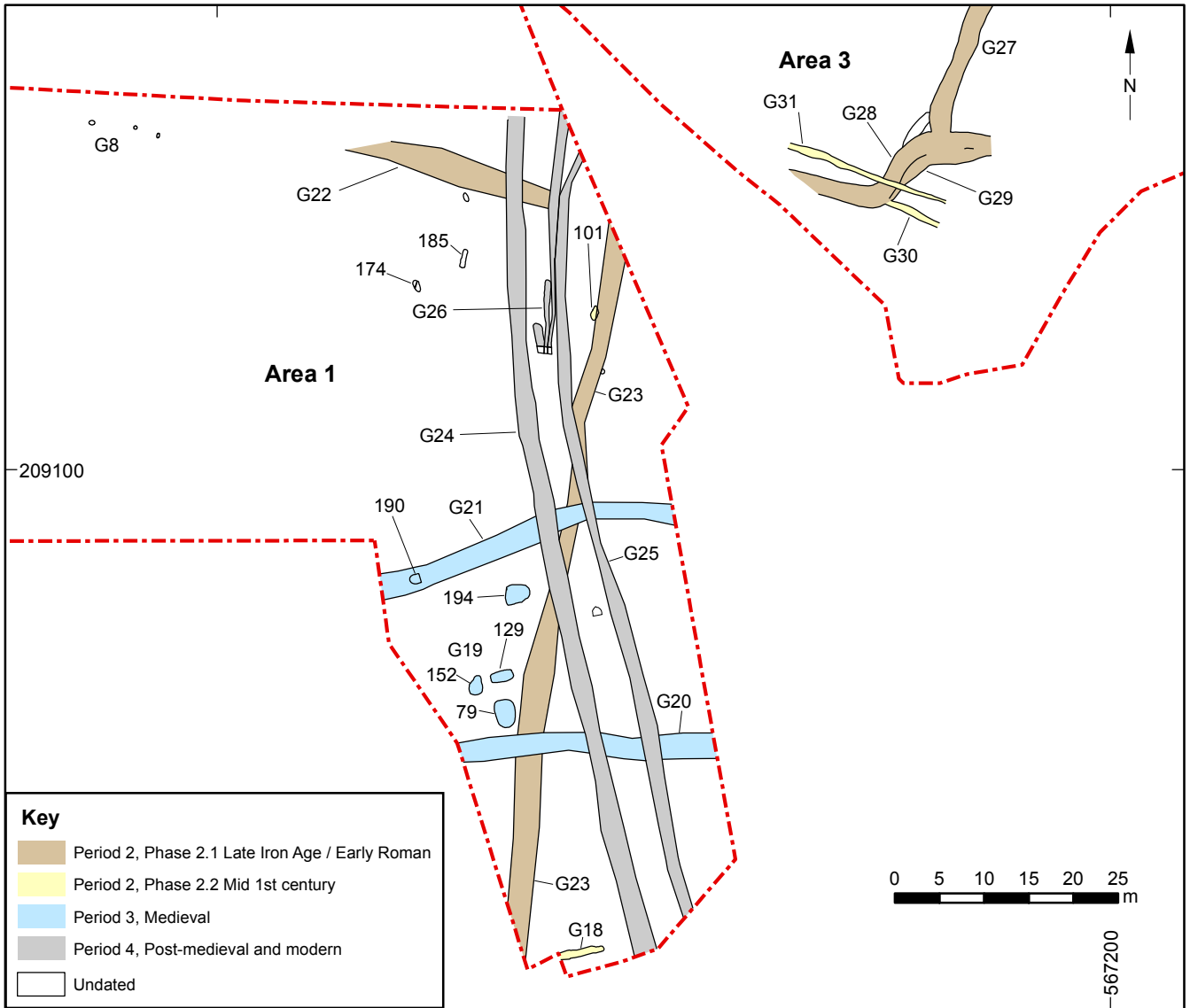
Table 8: NISP (Number of Identified Specimen Counts) by period

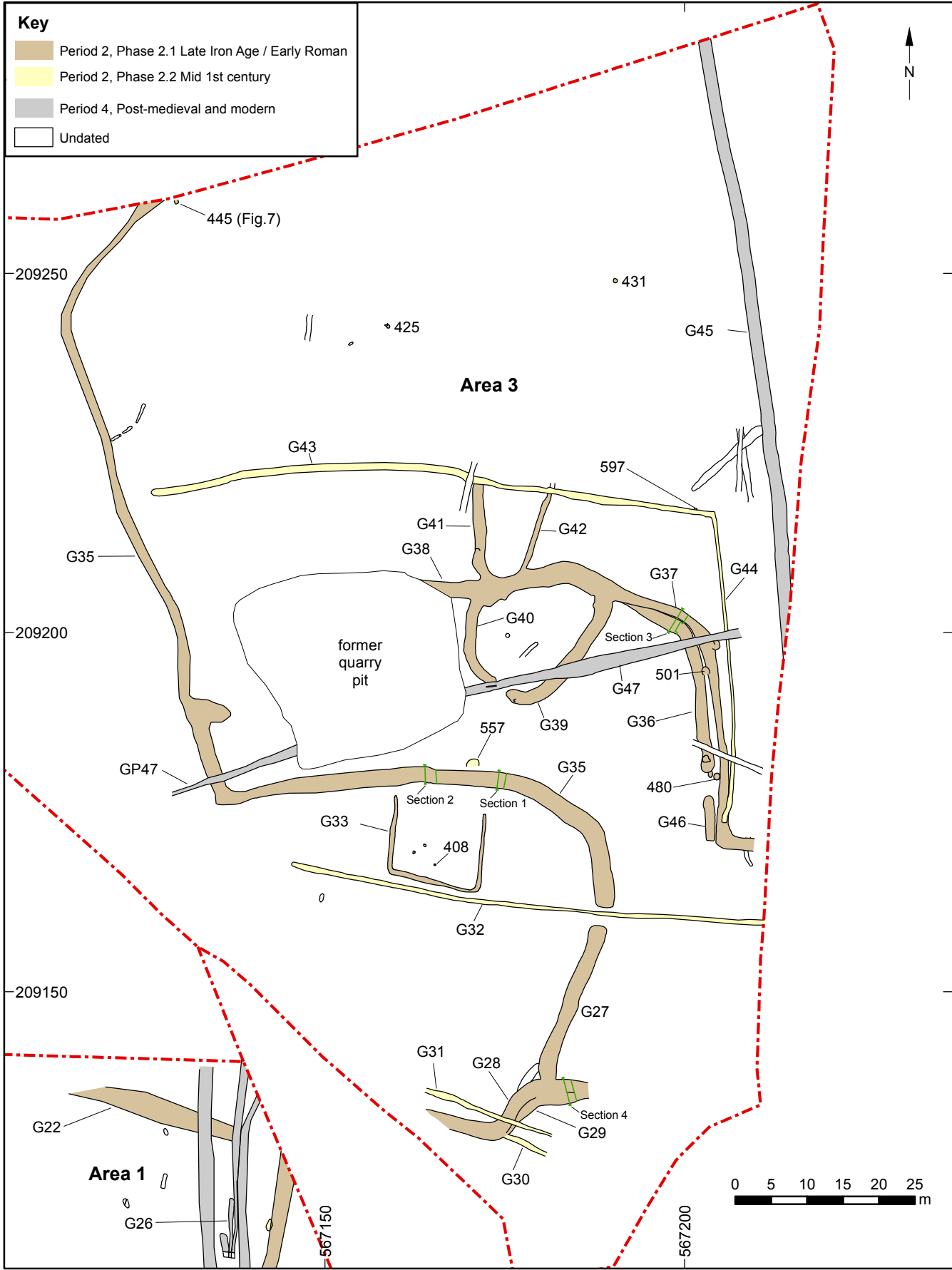


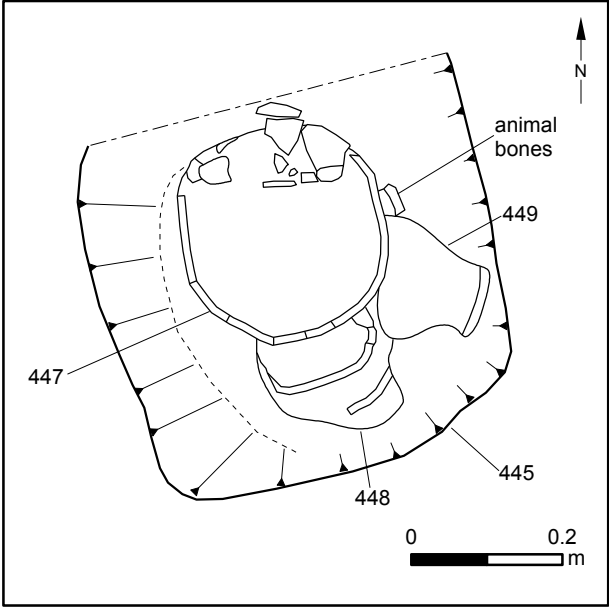


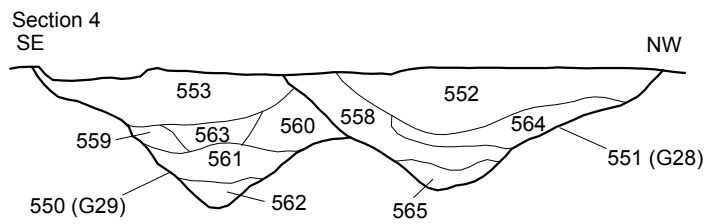
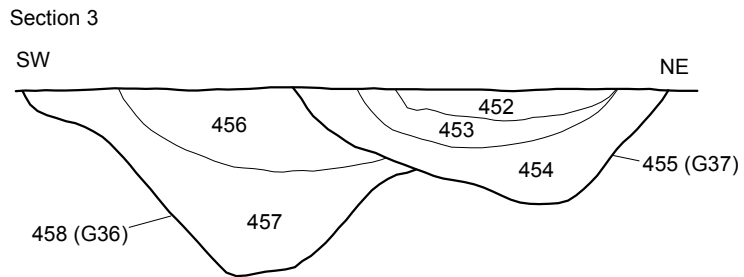
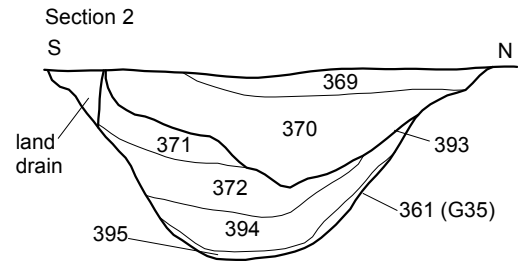
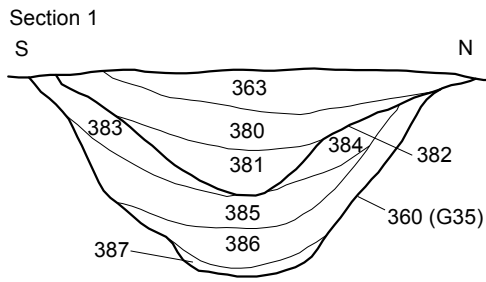


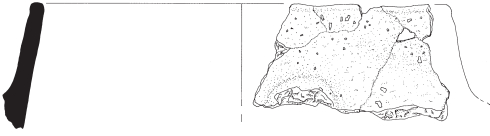






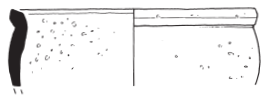




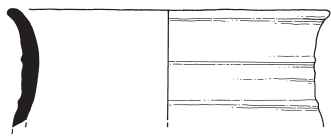


1

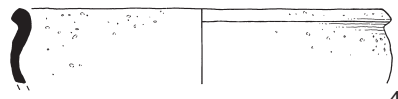
0 5cm



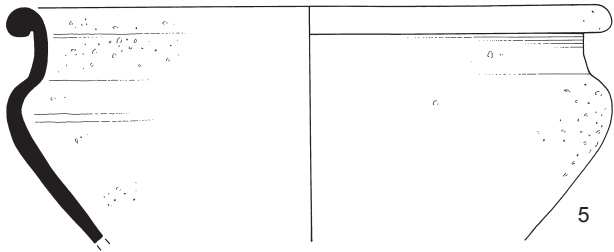
2



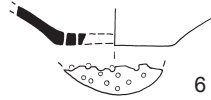
3



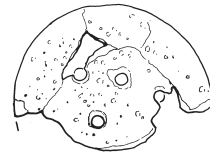
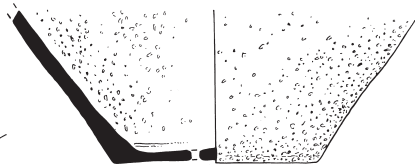
4



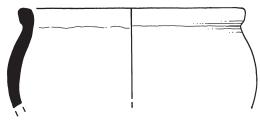
5



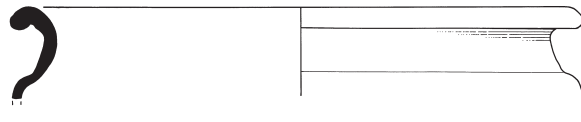
6



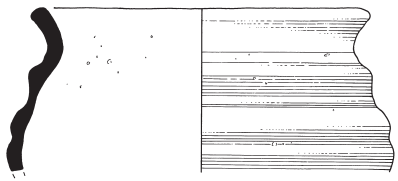
7



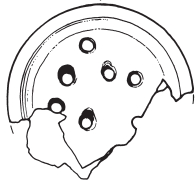
8



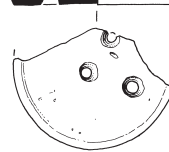
9



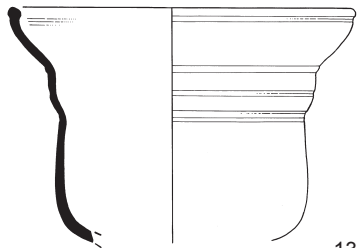
10



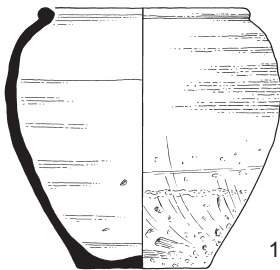
11



12



13



14

0 5cm

