

**PLOT L, CHELMSFORD BUSINESS PARK
SPRINGFIELD, CHELMSFORD
ESSEX**

ARCHAEOLOGICAL EXCAVATION



Essex County Council
Field Archaeology Unit

February 2013

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ARCHAEOLOGICAL EXCAVATION

Client: Churchmanor Estates plc

NGR: TL 73546 08270

Site Code: SPAL 12

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Dates of Fieldwork: 17/04/2012 to 09/05/2012

SUMMARY

Archaeological investigation was undertaken in advance of the development of Plot L of Chelmsford Business Park, including open area excavation of an additional car park area at its southern limit. Plot L is located immediately northwest of the important 1981-91 excavation site at Springfield Lyons and west of the recent Plot K site. It therefore lies in an area of known archaeological potential, just outside of the Late Bronze Age settlement enclosure, within the Early Saxon cemetery and possibly also within (or else just north of) the later Saxon settlement which partially overlies both.

Site evaluation undertaken in 2006, and augmented as part of this current work, established that the northern majority of the plot had low or no potential for the presence of significant archaeological remains and was not further investigated. This was further substantiated by monitoring of the construction of an access road for the development. Open area excavation was consequently confined to the area of the additional car park for Plot L, which in fact straddled a substantial trench extended from the Springfield Lyons enclosure excavations in 1991 in an attempt to determine the western extents of the cemetery activity. This earlier work identified the remains of 24 cremation burials.

A total of 22 further Early Saxon cremation burials, albeit generally highly truncated and disturbed, were found within the Plot L excavation area. These comprised simple urned interments of burnt human remains within shallow pits, demonstrating similar character and distribution to those previously found in this northwestern part of the cemetery. The ceramic vessels, some decorated, provide a late 5th to 6th century date. Only a single burial contained a pyre/Cremation burial good - a fragmentary piece of copper alloy binding strip.

In addition to Saxon period burials, ditches delineating part of an enclosure system of posited Late Bronze Age date along with apparently associated pits, and presumably relating to land-use in the immediate vicinity of the enclosed settlement, were found just beyond the cemetery activity.

While no inhumation burials or later settlement remains were present within the area investigated, it can reasonably be predicted that these - as well as further cremation burials - continue into that part of the as yet undeveloped business park to the south. Archaeological implication for the forthcoming development of Plot N is clearly demonstrated.

1.0 INTRODUCTION

This report describes the results of an archaeological excavation carried out at Plot L, Chelmsford Business Park, Springfield, Chelmsford, in advance of its development. The archaeological excavation was undertaken by the Essex County Council Field Archaeology Unit (ECC FAU) on behalf of Churchmanor Estates plc.

Outline planning consent for the development of various plots, including Plot L, was granted by Chelmsford Borough Council (CBC) some years ago. As various plots have been brought forward for development, the ECC Historic Environment Management team (ECC HEM), as advisor to Chelmsford Borough Council, has required varying degrees of archaeological investigation to be carried out in advance of development.

As the business park site is judged to lie in an area of archaeological potential a full archaeological condition was placed on planning consent by CBC, following a recommendation given by ECC HEM, in accordance with PPG15: Planning for the Historic Environment (since replaced by PPS5). The recommendation states that:

No development, or preliminary groundworks, of any kind shall take place until the applicant has secured the implementation of a programme of archaeological work and recording in accordance with a written scheme of investigation which has been submitted by the applicant, and approved by the planning authority.

Plot L was previously subject to archaeological investigation by trial trenching back in 2006, as part of the evaluation of Plots C, M and N, at which time it was known as 'Plot M'. The western half of Plot L was adequately evaluated with four trenches, but investigation of the eastern half was prevented by the presence of a protected oak tree and by a spoil heap. Evaluation within the then extents of Plot N was restricted to its peripheries due to dense undergrowth and did not coincide with the location of the Plot L additional car park.

Given the previously established high archaeological potential of the site and surrounding vicinity it was determined, in consultation with the ECC HEM officer (Richard Havis), that an archaeological 'strip, map and excavate' strategy would be undertaken as a preliminary stage of the Plot L additional car park construction works. It was also decided that the negative results of the 2006 trial trenching, together with the absence of significant remains across the adjacent western part of Area K, negated the need for further work across the majority of Plot L proper. However, extra evaluation trenching of the southeast corner of the plot was requested as its archaeological potential had not been previously investigated. This

investigation was carried out in accordance with a Written Scheme of Investigation (WSI) prepared by the ECC FAU (2012) and agreed by ECC HEM.

Copies of this report will be supplied to Churchmanor Estates plc, the ECC HE team and the Essex Historic Environment Record. A digital version of this report will be submitted, along with a project summary, to the Online Access to the Index of Archaeological Investigations (OASIS) and will be made accessible via the ADS website (<http://archaeologydataservice.ac.uk/archives/view/greylit>). The site archive, including collected artefacts and copies of the report, will be deposited at the Chelmsford and Essex Museum.

2.0 BACKGROUND

2.1 Topography and Geology

The Chelmsford Business Park is a complex of office and industrial units located along the south side of the B1137, some 3km north-east of Chelmsford town centre (Fig. 1). Plot L is located in the south of the designated business park complex (TL 73546 08270), accessed off Springfield Lyons Approach. It forms part of a larger area of rough ground, comprising grass and scrub, bounded by the current extent of the developed business park to the north, by industrial units to east and west, and by the Chelmer Village residential development to the south. Included in this, and of pertinence to the investigation of Plot L, is the remains of the 1981-91 Springfield Lyons archaeological excavation site. The remains of the excavated site, with its causewayed enclosure surrounded by substantial spoil heaps, lies just to the southeast and east of Plot L and its additional car park. The recently-investigated Plot K also lies immediately east.

The site occupies an area on the western side of the Chelmer Valley with the River Chelmer lying down slope some 600m to the south-east. Plot L proper is a roughly rectangular area of 0.56ha, immediately south of Springfield Lyons Approach. As a whole, its surface is fairly flat and even, falling gently to the southeast from c.38m AOD to c.36.5m AOD. A mature tree stands in its southeastern corner - a relic of the former historic gardens/parkland of Springfield Lyons house. More recently, the site has been used for the storage of spoil from earthmoving carried out elsewhere within the business park development. This has largely been cleared, though it is possible that parts of the site have been stripped of topsoil in the process - particularly toward Springfield Lyons Approach.

The additional car park site is a c.0.25ha rectangular area located immediately to the south.

Similarly sloping down to the southeast, its grassed surface is largely undisturbed and is occupied by sporadic patches of scrub. The east end of the site has been stripped of topsoil as part of the 1981-91 excavations and has not been backfilled. Substantial spoil heaps from this previous investigation are located to the south of the additional car park site.

The British Geological Survey (Sheet 241) indicates that the site occupies an area of Bagshot Beds over Claygate Beds which, in turn, lie over London Clay (British Geological Survey 1985). The surface geology of this site is therefore an orange clay containing Cremation burials.

2.2 Archaeology and History

The following archaeological background makes use of the Essex Historic Environment Record (EHER) held at County Hall and the content of various reports on the results of work previously undertaken in the vicinity. Figure 1 shows the closest and most significant investigated areas alluded to in the following text.

The site lies 3km north-east of Chelmsford's Roman and medieval town centre. However, it is only c.150m south-east of the line of the Roman London-Colchester road (B1137), and the excavation and related trenching have recorded scattered evidence of Iron Age and Romano-British finds and features in the general vicinity.

1981-91 excavations

Most pertinently, Plot L is located immediately west and northwest of the nationally important site at Springfield Lyons, where excavations carried out 1981-91 recorded a fragment of the western side of a probable Neolithic causewayed enclosure in the easternmost part of the site (Buckley 1991), a Late Bronze Age settlement within a circular defended enclosure (Buckley and Hedges 1987; Brown and Medlycott forthcoming), an Early Saxon cremation and inhumation cemetery, and a Late Saxon manorial settlement site (Tyler and Major 2005).

On the evidence from the 1981-91 investigations, the Neolithic remains are confined to the southeastern part of the business park site (i.e. Plot K) and the majority of the Bronze Age remains to the interior of the circular enclosure of the same date. Only occasional Prehistoric features have so far been found west of the enclosure. However, the exposed remains of the enclosure do lie immediately east of the Plot L additional car park and a deposit of sword moulds was retrieved from one of the nearest enclosure ditch terminals.

A total of 143 cremation burials and up to 139 inhumation burials (25 uncertainly identified) of 5th, 6th and possibly 7th century date were excavated (Tyler and Major 2005, Fig. 4). While the northern and northwestern limits of the inhumation cemetery seem to be defined by the former Bronze Age enclosure, the cremation cemetery extends further westwards. Approximately 20 cremation burials were encountered within the projection of the 1981-91 excavation site which is now in the eastern end of the additional car park site and no clear limit of the cemetery here is evident.

The Late Saxon settlement, comprising the remains of post and slot built timber buildings, is mostly located to the south and southwest of the former Bronze Age enclosure and no such remains have been found near Plot L or its additional car park (Tyler and Major 2005, Fig. 3). The settlement is identified as that of Cuton Hall, a manor recorded in the Domesday Book of 1086, although changes in manorial holdings after the Norman Conquest resulted in Cuton Hall moving to a new site nearer the Chelmer. Springfield Lyons is not mentioned at all in Domesday, and the earliest record of it dates to 1339 (Tyler and Major 2005, 200). Documentary sources and cartographic evidence suggests that the vicinity was in agricultural use during the medieval and post-Medieval periods. Further discussion of the later history of the site can be found in Tyler and Major 2005 (p.200-2).

Subsequent investigations

Supplementary trenching (Trenches HA to HU) was undertaken across the surrounding vicinity of the excavation site in the late 1980s, much of it targeted to pick up continuations of specific features or to identify limits of settlement and cemetery activity (Tyler and Major 2005, Fig. 2). Trenching to the east of the then excavation site identified further parts of the Neolithic Causewayed enclosure (Buckley 1992) and Saxon and later ditches. Trenching to the north and west was largely devoid of archaeological remains. Trench HE was positioned on what is now the southeast edge of Plot L and was blank. However, Trench HA, a northwestward extension from the main 1981-91 site, contained a small number of Early Saxon cremation burials demonstrating the westward continuation of the cemetery further into the additional car park site, albeit less densely so.

A geophysical survey feasibility survey was carried out by Oxford Archaeotechnics in 1992 in the southeast corner of the Chelmer Business Park site (Johnson 1992). A magnetometer survey was primarily undertaken to detect a further part of the Neolithic causewayed enclosure. However, results proved to be inconclusive and that part of the site judged to be unsuitable for geophysical survey due to past disturbance, modern iron contamination and to poor contrast between feature fills and the natural deposit.

Since the 1981-91 Springfield Lyons excavations, archaeological investigations undertaken in its vicinity have recorded further remains dating from the Neolithic to the medieval periods. A trial-trenching evaluation and subsequent targeted excavation to the east of the Chelmsford Business Park recorded Neolithic flint artefacts, evidence of dispersed Late Bronze Age settlement activity, and Romano-British field boundary ditches dated to the 1st–2nd century (Bennett (ed.) 1998, 203; 2000, 221-2; Manning and Moore 2003). Another trial-trenching evaluation to the south of the Springfield Lyons enclosure, adjacent to Chelmer Village Way, recorded further evidence of landscape development, with Romano-British field boundary ditches apparently continuing in use into the 14th century (OAU 2006).

The 2006 trial-trench evaluation of Business Park Plots G and H (Pocock 2006), and of Plots C, M and N (Robertson 2006), revealed a generally low presence/survival of archaeological remains and a moderate incidence of post-medieval and modern disturbance. Plots C, G and H were located some distance north of Plot L. A ditch found in Plot G/H, and subsequently investigated in a larger excavation area, was judged at the time to be Late Bronze age and to be part of a field system to the east of the enclosed settlement (now speculated to be Later Saxon). Two probable slight prehistoric ditches and a substantial WW2 anti-tank ditch were recorded in trenches (T1 and T3) within Plot N, just south and southeast of the proposed car park site. Only part of this plot was evaluated due to the presence of dense undergrowth. Plot M is now that part of the Business Park identified as Plot L. No archaeological remains were found in the four trenches (T4–T7) excavated within its western half, but significant disturbance and truncation from modern activities was noted. It appears that the Early Saxon cemetery does not extend this far northwest into Plot L.

Plot K, a 0.75ha area immediately east of Plot L, was subject to open area excavation in 2011, prior to its development (Ennis 2012). Archaeological remains were confined to the eastern half of the site. These included further parts of the Neolithic causewayed enclosure boundary pits and a small interior pit of similar date, part of a probable small Late Bronze Age roundhouse and two parallel north-south ditches of probable Later Saxon date - one possibly the southward continuation of a ditch found in Plots G and H, approximately 110m to the north. Two further post-medieval ditches were also recorded that possibly pre-dated the creation of the gardens and parkland of Springfield Lyons House. The western half of Plot K, adjacent to Plot L, was found to contain no archaeological remains.

3.0 AIMS AND OBJECTIVES

3.1 Aims

The general aim of the investigation was twofold, to:

- Determine the presence of archaeological remains of all dates and periods within the Plot L additional car park, and to preserve them by record prior to their destruction by construction works
- Evaluate the presence, type, date, nature and survival of archaeological remains within the southeast of Plot L proper

The specific aims of the investigation were to:

- Identify and record any Bronze Age settlement remains outside the Springfield Lyons enclosure and to investigate any ditch/field systems potentially associated with it
- Identify and record the westerly spread of Early Saxon cremation burials and to define the nature and extent of the Early Saxon cemetery
- Identify and record any other remains contemporary with the Early Saxon cemetery or relating to the later Saxon settlement

3.2 Objectives

Research objectives for the project were undertaken with reference to those laid out in *Research and Archaeology: a Framework for the Eastern Counties, 2. research agenda and strategy* (Brown and Glazebrook 2000) and with the revised research framework (Medlycott 2011).

The development of farming and the attendant development and integration of monuments, fields and settlements have been identified as key areas of research for the Neolithic and Bronze Age periods (Brown and Murphy 2000, 10).

A wider understanding of settlement development through the Saxon and Medieval periods has also been judged to merit further research (Wade 2000, 25; Medlycott 2011, 58).

4.0 METHOD

The overburden was removed, in both the Car Park site and extra evaluation trenches, under archaeological supervision by the construction contractor using machine fitted with a flat-bladed bucket. Potential archaeological features were cleaned, planned and hand excavated. A feature sampling strategy was agreed with the ECC HE officer at a monitoring visit. Standard ECC FAU excavation, artefact collection and recording (written, drawn and photographic) methodologies were employed throughout.

Where possible, the excavated remains of burial urns and the cremation deposits contained within them were wrapped and lifted as one for removal from site for processing. Bulk soil samples were collected, largely from cremation burial contexts, for the purposes of both artefact retrieval and environmental processing, as appropriate.

Other ancillary works, such as the topsoil strip for an access track across Plot L from the contractor's compound to the new car park area and the insertion of a drainage run through the centre of the new car park were also monitored during the course of the excavation works.

ECC FAU is a Registered Archaeological Organisation with the Institute for Archaeologists and all work was carried out in accordance with IfA by-laws and guidelines (IfA 2010; 2008) and complied with Standards for Field Archaeology in the East of England (Gurney 2003).

5.0 FIELDWORK RESULTS

5.1 General

The archaeological fieldwork consisted of monitoring of test-pitting and various lesser groundworks, the excavation of two evaluation trenches and open-area excavation in advance of the construction of the Plot L additional car park. The weather throughout the fieldwork period was generally poor with regular heavy downpours leading to saturated ground conditions and standing water in parts of the site (Plate 4).

Although significant disturbance and truncation from modern activities was noted during trenching of the main part of Plot L and across the neighbouring western half of Plot K, the additional car park excavation area appeared relatively undisturbed. There was no evidence of major dumping/stockpiling or stripping of topsoil material, other than a small amount of modern spoil deposited in the vicinity of Trenches 1 and 2. However, the south-east corner of the additional car park excavation area did necessitate being cut through the end of a

large spoil tip, one of several, remaining from the original 1980s Springfield Lyons excavation.

Numerous cremation burials were found to be present within the additional car park excavation area, along with a small number of ditches, pits and post-holes. The cremation burials were all of Early Saxon date whilst the other remains more tentatively date from the Late Bronze Age and perhaps later. Little of significance was encountered elsewhere. The results of the various pieces of archaeological investigation carried out are described below. Detailed context information is presented in Appendix 1.

5.2 Plot L monitoring and evaluation

Before the commencement of groundworks, monitoring was undertaken during the excavation of a series of geo-technical test pits across Plot L and the additional car park site (Fig. 1). Inspection of the test pitting revealed a general depth of overburden of between 0.35m and 0.50m overlying natural deposits of light brown to bright orange clay and gravel. The overburden consisted of 0.20m to 0.30m of dark grey brown topsoil, above 0.15m to 0.20m of lighter grey brown gravelly subsoil. One grey-silt filled feature, 1.5m+ wide by 0.40m deep, was noted in the south side of Test Pit 3. No finds were recovered and it was not clear whether the feature was of man-made or natural origin.

Two trial trenches were excavated in the south-east corner of Plot L proper (Figs. 1 and 2), in that part of the development area that had not previously been available for evaluation in 2006. Trench 1 was c.20m long by 1.8m wide and, due to the presence of a 0.20m deep overlying spread of spoil, was cut to a total depth of 0.65m. A single feature was identified cutting the exposed gravelly brown silt (Plate 1). Gully 161 ran across the middle of the trench, extending beyond it to both east and west (Plate 2). At c.0.66 m wide and 0.1m deep, its light brown-grey gravelly sandy silt fill contained one very small sherd of pottery.

A single possible post-hole, 185, was encountered in similarly proportioned Trench 2. This 0.3m x 0.35m oval cut was 0.15m deep and contained no finds in its mid brown-grey sandy clay silt backfill. A natural origin for this feature is not discounted.

The opportunity was also taken to monitor the topsoil strip for an access track (Plate 3) from the road and contractor's compound in the northeast corner of Plot L to the additional car park site (Fig.1), which was established part way through the latter's investigation. This track incorporated most of Trench 1 within its route.

No further archaeological remains were found within this access route, augmenting the results of the two trial trenches and confirming opinion that, like the western part of Plot K, Plot L proper was apparently devoid of significant below-ground remains of any period.

5.3 Car Park Area excavation

Formal open area excavation was undertaken of the 0.25 ha extent of the additional car park area at the southern end of Plot L. The dark grey-brown topsoil was removed, and in parts some of the underlying grey brown gravelly subsoil, until the archaeological horizon was reached. This exposed a range of remains that included pits, ditches and cremation burials (Fig. 2). Most of these archaeological features were cut through the subsoil but were not always apparent directly below the topsoil, though conversely one or two cremation vessels did appear to protrude into the topsoil. The majority of the cremation burials had been truncated and crushed in antiquity, most probably by ploughing, and in a few instances the surviving pottery vessels had clearly been further fragmented by more recent root action. Some general root disturbance was noted in the west of the excavation area which had been formerly been partly covered by shrubby vegetation and a number of animal burrows were also present in this vicinity.

The site incorporated the westwards extension of the original 1980s excavation area and was roughly bisected by the late 1980s supplementary trench HA (Fig 2). The site was also crossed by a modern service trench which post-dated the 1980s trenching and had previously been observed running through Plot K.

The excavation was carried out in less than ideal weather conditions, rain making cleaning and recording difficult. The gravelly nature of the subsoil meant that the ground was generally workable although it became more saturated as the project progressed with standing water in the area bordering the Bronze Age enclosure (Plate 4). Feature clarity was adequate, with the cremation burials identifiable by the presence of the truncated ceramic vessels and burnt bone on the machined surface. However, the cremation pit cuts were generally not discernable, their backfills being too similar to the surrounding natural deposit. The other pits and post-holes were visible as darker soil marks and the clarity of the two linear features improved with weathering. The majority of the archaeological features were located to the south of the 1980s trench extending from the previous excavations (Fig. 2). Later re-machining to the north of this trench, in the vicinity of cremation burials 146 and 204, did not locate the northwards continuation of ditch 177/187 or the eastwards continuation of ditch 181/190.

Cremation burials

A total of 22 cremation burials were identified and recorded (Fig. 2). Each interment comprised of burnt human remains placed inside a single ceramic vessel occupying a generally small and shallow pit. As previously noted, the legibility of these cuts was often poor and the recorded extents of some are admittedly somewhat arbitrary. Most pits, where measurable, survived to depths of less than 0.12m deep below the topsoil, with only a few such as cremation burial cuts 124 and 200 being appreciably deeper at 0.18m and 0.20m respectively.

As demonstrated by the shallow cut depth and generally severe damage to the interred vessels, all the burials had been significantly truncated by post-cemetery activity - presumably cultivation. With no subsoil present, it was observed that some of the Cremation burial remains intruded up into the base of the topsoil. This suggests that the vessels were probably placed only just below the contemporary ground surface and that each interment was perhaps covered by a small mound of earth. However, any such mound had long since been removed by later land-use activity and no enclosure gullies were found in conjunction to indicate their former presence and extent.

As previously mentioned, the interred vessels were generally highly truncated and disturbed. Most survived only as basal sherds up to an estimated 30% completeness (e.g. cremation burials 103, 136, 140, 163; Plates 5-8). Only four vessels were more than 50% complete; 122 (cremation burial 121), 126 (cremation burial 124), 134 (cremation burial 133) and 202 (cremation burial 200) being variously some 75-90% complete (Plates 9-11). Of these, only vessels 122 and 134 retained any appreciable proportion of their rims (Plates 15 and 17). Even where appreciable parts of vessels survived in situ, all were crushed and highly fragmentary. Vessel fabrics were generally soft and crumbly due to their low firing and the wetness of the conditions under which they were excavated, which added to their poor state of survival. Given the poor feature legibility encountered, some relatively minor vessel loss was admittedly the result of machine truncation during the stripping of topsoil. That said, the surviving vessel remains comprised a range of jars and bowls of distinctively early Saxon date, some of which were observed to be decorated. Stamped, incised line and boss decoration was all noted. The nature and chronology of these vessels is fully described in Section 6 and the more complete examples illustrated in plates 15-19.

Although vessel fills were not generally excavated on site, but lifted with the vessels for off-site processing, they were mostly recorded as being dark grey-brown clay silts with pebble inclusions. These contained small fragments and flecks of white burnt bone of varying

frequency, though the presence of identifiable quantities of other burnt material such as charcoal was conspicuously low, being only observed in vessel fills in cremation burials 128, 131, 138, 153, 158, 164 and 170). In a few instances, cremated bone was found outside the vessel (e.g. fill 125 in cremation burial 124; fill 168 in cremation burial 166), in what was identified to be cremation burial cut backfills. However, given the presence of displaced pottery from the interred vessel, this is almost certainly due to disturbance, rather than denoting deliberate placement of cremated material outside it.

Cremation burial pit backfills were generally difficult to distinguish, particularly as most pits appeared to have been cut large enough only to accommodate the vessel. Where defined, fill 125, in one of the larger cremation burial cuts 124, was a mid grey clay with frequent flint pebbles. Fill 143 in cremation burial 133 was similar but less pebbly, while fill 168 in cremation burial 166 was a mid orangey brown sandy clay. In one or two instances the tops of the cremation burials, and even the tops of the vessels themselves where largely intact, were observed to contain greyish brown silt backfill or subsoil material. Being distinct from both the overlying topsoil and the cremation deposit below, its presence would indicate a lack of disturbance to the vessel contents. As such, with regard to burials 133 and 200 it can be reasonably assumed that the entire original vessel contents survived and were collected - which is important for analytical purposes.

Other than the ceramic vessel remains and displaced cremated bone, no other artefacts were collected from the cremation burials during their excavation. While it was anticipated that pyre or cremation burial good items could be present within the vessels lifted with their fills, subsequent processing of these fills produced only one such discovery - three small, heat distorted fragments of copper alloy binding strip from fill 132 in vessel 131 (cremation burial 130). These are further described in Section 6. This lack of artefacts was consistent with the results from the original excavation where only two cremation burials out of the 26 located to the northwest of the Bronze Age enclosure contained grave-goods (Tyler and Major 2005, Fig. 7).

The 22 recorded cremation burials appear widely scattered over the investigated area (Fig.2) and show no particular meaningful patterning, though some clustering is evident (Fig. 3). All can reasonably be regarded as a further part of an apparent chronological grouping identified within the wider excavated cemetery - Group 14, the collection of 26 cremation burials northwest of the former Bronze Age enclosure (Tyler and Major 2005, 184 and Fig.109). However, within this overall combined grouping, some further spatial detail can now be offered. Twelve Plot L cremation burials form one cluster in the south east corner of the

excavation area and augment a similar cluster within Group 14. The remainder form a second, more widely spread 'cluster' that augments similarly outlying components of Group 14. It is not clear whether there is a real gap between these two clusters or if this is exaggerated by the modern intrusion of a service run between them. Either way, the Plot L cremation burials further emphasise the peripheral nature of cemetery activity in this vicinity northwest of the Bronze Age enclosure.

Other remains

Non-burial remains were generally found across the western part of the car park site (Fig. 2). East-west aligned ditch 181/190 was recorded over a distance of c.24m. It extended westward beyond the limit of excavation. Where excavated within segment 181 it was found to be 1.1m wide and 0.29m deep (Plate 12) and slightly smaller in segment 190 where it was 0.8m wide and 0.25m deep. Slightly smaller north-south ditch 177/187, further east, was 0.74-0.82m wide and only 0.12m deep. It was traced for a distance of c.16m and tapered to a narrow rounded terminal at its south end. Both ditches contained a single mid greyish brown clay silt fill with occasional flint gravel, from which Late bronze Age pottery and baked clay fragments were retrieved from segments 177, 181 and 190, or else from their surface (207). However, segment 177 also seemingly contained a fragment of Roman box flue tile. Neither ditch could be traced into the footprint of the 1991 trench or northwards beyond it, nor were they seemingly identified during the earlier investigation. However, it is postulated that they formerly met to define the corner of a rectangular enclosure that extends off to the south and west and which is of apparent late Bronze Age date.

Relatively large pits 176 and 189 (Plate 13) were located immediately east of the rectilinear enclosure described above, and in between it and the circular Bronze Age settlement enclosure. Both may have been aligned on ditch 177/187 and pit 189 could well have been deliberately positioned directly alongside its terminal. Both pits were only 0.12-0.14m deep and contained single mid/dark brownish grey clay silt fills with common stones and rare charcoal flecks. While 176 contained no artefactual material, 189 yielded pottery and worked flint of Late Bronze Age date and it is conjectured that both are contemporary with the rectilinear enclosure.

The remaining identified pits clustered toward the western end of the excavation area. Intercutting, and similarly proportioned, pits 194 and 196 were each c.0.46m diameter and 0.2m deep. They contained similar mid/dark grey sandy clay silt fills with rare small stones and occasional charcoal flecks. Neither yielded any finds. Gully/elongated pit 192 directly to

their north could be a similar agglomeration of features, at 1.2m long by 0.42m wide and 0.19m deep - particularly as it contained the same fill.

Smaller pit 179 and pit/post-hole 198 were located either side of the linear-ish positioning of 192, 194 and 196 (Plate 14). The fill of 179 contained two sherds of prehistoric. Although these western pits lie within the interior of the rectilinear enclosure previously described, the lack of datable artefacts from their fills makes association tenuous. Furthermore, the presence of Early Saxon cremation burial 172 in their midst must raise the possibility that some could be of similar date.

The remaining recorded features were all apparent post-holes, all but one located in the southeast of the site amongst the main cluster of Early Saxon cremation burials. Small, mostly shallow, circular cuts 118, 128 and 144 contained gravelly clay silt fills with occasional charcoal flecks, but only 118 yielded finds. As these comprised only a single sherd of (residual?) Roman pottery and baked clay fragments, their association with the cemetery is difficult to determine. They could perhaps have denoted the positions of cremation burial marker posts.

Post-hole 149 was located alongside ditch 177/187. 0.3m diameter and 0.10m deep, its brownish grey sandy silt fill was noted to contain charcoal fragments and flecks together with rare pieces of burnt bone (though none was retrieved). Whether this feature was in fact a burial, or contained pyre debris, is unclear.

Further limited monitoring was undertaken during the machining of an east/west drainage trench through the centre of the excavated car park area at the end of the fieldwork stage. No additional archaeological features were observed.

6.0 FINDS AND ENVIRONMENTAL MATERIAL

A quantity of material, predominantly comprising pottery and cremated bone, was collected from a total of 55 contexts. Much of this was collected by hand during excavation, though additional quantities of finds, and virtually all of the burnt bone was subsequently retrieved from bulk soil samples by means of wet sieving and sorting (see section 6.7 below). All of the material has been processed, sorted by material/type into context and recorded by count and weight. The finds are described below with further detail and quantification presented in Appendices 2-4.

6.1 Prehistoric Pottery by N. J. Lavender

A total of 105 sherds (597g) of prehistoric pottery was recovered from nine contexts during the excavation. This has been recorded according to a system devised for prehistoric pottery in Essex (Brown 1988, details in archive). The pottery was recorded by fabric, class (after Barrett 1980), form, decoration, surface treatment and condition. The assemblage was quantified by sherd count and weight (Appendix 2).

Fabric		Sherd Count	Sherd Weight	% Sherd Count	% Sherd Weight
C	Flint, S-M with occasional L 2.	88	343	83.8	57.4
D	Flint, S-L 2 poorly sorted.	15	245	14.2	41.1
E	Flint and sand, S-M 2.	2	9	2	1.5
		105	597	100	100

Where:

Size of inclusions S= less than 1mm diameter.
 M= 1-2mm diameter.
 L= more than 2mm diameter.

Density of inclusions 1= less than 6 per cm²
 2= 6-10 per cm²
 3= more than 10 per cm²

The pottery is all in the ubiquitous flint-tempered prehistoric fabrics found throughout Essex and comprises mainly coarse jars with little or no decoration. For the most part it is in quite fresh condition and even the residual base sherd from 116 (a Saxon cremation burial) shows little sign of abrasion. Many of the sherds are reasonably large and the low average weight of 5.7g is the result of the higher proportion of small sherds in ditch fill 188, which also have the greatest amount of abrasion.

There is little diagnostic material: bases, where present, are flat and the few rims sherds are flat-topped and undecorated. Class I coarse jars predominate and there are at least two Form A jars with short upright rims and rounded shoulders in the assemblage (from 183 and 188). The jar from 183 (enclosure ditch 181) is a thick-walled vessel with an applied, finger-impressed cordon on the neck, often typical of earlier, Deverel-Rimbury vessels, but relatively common among the Late Bronze Age jars from North Shoebury (Brown 1995a figs. 64.63-4), Broomfield (Brown 1995b fig. 8.34). Further finger-impressed sherds were recovered from 188 (pit 189) but these are too small to assign them to any particular position or decorative scheme.

Single sherds with more angular shoulders, possibly from Form K tripartite bowls, are present in 188 and 191 (the same enclosure ditch as 183), though the absence of joining sherds makes reconstruction and positive identification impossible.

Evidence for manufacturing techniques and surface treatment is slight. Some of the finer sherds from 155 and 188 appear to have been smoothed internally and there are signs of scoring on some sherds from 188 which is probably not deliberate. The base sherd from 116 has finger marks caused by pinching during base formation and the single large sherd from 182 is almost perfectly rectangular and appears to be from a slab-built jar.

Although there are few diagnostic sherds, the material is of Late Bronze Age date, comparable to pottery recovered extensive excavation of the circular enclosure (Brown and Medlycott forthcoming) and the similar monument at Great Baddow (Brown 1994) across the valley to the south. The assemblage is clearly later than that from the nearby Boreham Interchange enclosure (Brown 1999) and lacks the distinctive post-Deverel-Rimbury Form B hooked rim jars common on that site.

In conclusion, there is nothing about this small group of pottery to distinguish it from the much larger assemblage from the previous excavations and a date in 10th or 9th centuries BC would seem to be appropriate.

6.2 Roman Pottery

A single body sherd of Roman sandy greyware pottery was recovered from pit fill 120.

6.3 Early Saxon Pottery by Sue Tyler

The excavation of Plot L produced remains of 23 Early Saxon vessels used as cremation urns. Each cremation pit contained a single vessel with the exception of cremation burial 109 which had remains from two separate vessels; albeit one represented by a single decorated sherd. As the second vessel is represented only by a single sherd, its occurrence is judged to be residual within the feature, rather than representative of a double burial. A group of surface finds given context number 151 represent sherds deriving from vessel 153 in cremation burial 152.

The analysis of cremation vessels requires a slightly different approach to that employed for most pottery assemblages. The more complete cremation vessels were examined prior to

the excavation of their fills (during which process the pots were dismantled). At this stage of the recording process the vessels were photographed and a record of their dimensions, completeness (expressed as a percentage of their estimated overall size) and decorative schemes and forms was made. Full quantification and identification of fabric and form was undertaken following dismantling and processing. Some of the dimensions recorded during the pre-fill excavation phase may be affected by the distortion of some of the vessels during their burial. Most of the vessels have lost their rims and upper body and several of the bases had disintegrated into tiny fragments. Only seven vessels have an estimated survival percentage of 50% or more. Where the base had completely disintegrated an estimated dimension is given (in some cases taken from the profile of the extracted fill). The detail of this analysis is presented in Appendix 3.

Fabrics

The identification of the Plot L Saxon pottery follows the *Fabric Series* used in previous analyses of pottery from the adjacent site at Springfield Lyons (Tyler and Major 2005, 120-1):

- 1a.** Quartz-sand tempered within a clay matrix containing few inclusions. Well sorted, dense rounded to sub-angular small to medium particles.
- 1b.** As **1a** but with varying quantities of mica and felspar.
- 1c.** As **1a** but with sparse to common iron oxide.
- 2.** An assortment of sandy fabrics whose quartz-sand particles are generally larger and more angular than **1a**.
- 3a.** Organic temper within a clay matrix containing few inclusions.
- 3b.** Organic temper with common iron oxide within the clay matrix.
- 4.** Tempered with quantities of organic matter and small to medium well-sorted dense quartz-sand (in varying proportions) within a clay matrix.

Fabric identifications are included in Appendix 3.

Results

The assemblage from Plot L adds to the corpus of 120 cremation vessels recovered from the adjacent site at Springfield Lyons (Tyler and Major 2005). The condition of the Plot L vessels (with only 20% having rims) can be directly paralleled in those of the earlier excavations, of which only 37 of 131 pots had surviving rims (Tyler and Major 2005, 118-122). With many of the cremation vessels buried in fairly shallow pits, it would seem that plough-action has generally removed their upper bodies and rims.

The date range for the Plot L vessels also mirrors that of the earlier excavations, with a late 5th to late 6th century date range. The vessels can be dated by form, decoration and fabric. Only 25% of the vessels are decorated (six in the assemblage) but show a full range of techniques: hollow bosses (vessel 126, Plate 16), applied solid bosses (vessel 131), rows of stamps (vessels 101, 110 and 138) and finger-nail impressions (vessel 164). Quite frequently the bosses and stamps are divided up by incised vertical lines and neck cordons, and this is the case with the Plot L assemblage (e.g. vessel 168).

The earliest, late 5th century, forms are bossed urns with simple line and dot decoration, sometimes with bosses (e.g. vessel 126, Plate 16). The forms of these earliest pots combine footrings with sharply carinated profiles. The fabric of the earlier pots is generally well-fired and sandy (Fabrics 1a to 1c), giving an even colouration. The intrusive sherd in cremation grave 109, executed in Fabric 1a, is most likely earlier than the context in which it occurs.

Moving into the 6th century, stamped decoration became popular, sometimes combined with bosses. The late 5th century combination of footring base and strong carination carries on into the 6th century but is combined with decoration comprising rows of stamps (e.g. vessel 101). The stamps themselves become ever more complex during the course of the 6th century. The Plot L pots have some simple examples belonging to the early 6th century (e.g. the rosette, multiple circle and simple triangle stamps on vessel 138). The primary cremation urn from grave 109 has a more complex stamp (grid rectangle) executed on a Fabric 4 pot; this could date to the mid-6th century.

The plain vessels are more difficult to date precisely. The use of plain lugged pots as urns (vessel 122, Plate 15) is seen as a 6th century practice, continuing on into the 7th (as shown at the Mucking cemeteries, Hirst and Clark 2009). Cremation 6955 from earlier excavations at Springfield Lyons was a lugged pot with footring base, but in this example the lugs are pierced (Tyler and Major Fig.61). "Lugged pots on foot-ring forms" are a type identified by Myres (1977. Fig.75 I.2) and in addition to the Mucking examples he cites an example from Rivenhall, Essex (Myres corpus No. 4035).

The use of large amounts of organic temper in pottery is also seen as indicative of this date range. This would tend to indicate that many of the plain urns from Plot L are 6th century (e.g. large globular jars in Fabric 3a such as vessels 153, 159, 167, 173) but probably not 7th given their close proximity to vessels which are clearly early 6th century in date (e.g. vessel 138).

Discussion

The Plot L burials add to our knowledge of the Early Saxon cemetery at Springfield. The fabrics, forms and decoration on the pots confirm that the cremation burials continued on into at least the mid sixth century (most likely contemporaneously with the alternative burial rite of inhumation (although the two rites do not occur together in this part of the cemetery). Further study of the decorative schemes on the cremation urns, in particular the pot stamps, may demonstrate close links with other early Saxon cemeteries in Essex and further afield. The results of this pottery analysis should be published as an important follow-on from the earlier work on Springfield Lyons (Tyler and Major 2005), as should those from any future archaeological investigations in advance of further business park development.

6.4 Metalwork by S. Tyler

The cremation vessel fills contained only a single 'pyre good', i.e. personal belonging of the deceased burnt with them on the funeral pyre. This came from cremation **vessel 131** (pot fill 132) and comprises three heat distorted copper alloy strips. They may be leather binding strips but this identification is uncertain.

<SF15> Copper alloy strips. Three pieces (do not join). In poor condition. Probably used to bind leather as part of a belt set. They appear to curve at their ends but this could just be from heat distortion.

1. **Strip.** Curving at both ends. L. 21mm. W. 4-6mm (tapering). Thickness 1mm.
2. **Strip.** Curving at one end. L. 29mm. W. 4-6mm (tapering). Thickness 1mm.
3. **Fragment.** L. 6mm Max. W. 3mm.

The occurrence of a single pyre good from the cremation vessel fills of some twenty-five burials is a somewhat low figure for an Early Saxon cemetery site, but is comparable to the results from the earlier excavations at Springfield Lyons. These excavations produced twenty-one groups of pyre goods (one group unurned) from a total of 143 cremation burials, approximately 15% (Tyler and Major 2005). This low figure is probably explained by the truncated nature of the cremations, most of which had lost at least 50% of the vessel and its fill and could therefore have lost their associated pyre goods. As a further local comparison, the excavation of an almost exclusively early Saxon cremation cemetery at Rayleigh, Essex recorded a figure of 33% of burials containing pyre goods (Ennis 2008, 54-5). It is possible that the Springfield figure could be similar if the cremations had not been so truncated.

6.5 Cremated Human Remains by Natasha Powers

Twenty-four deposits of burnt bone were examined and originated from 22 urned cremation burials and the fill of a pit. The remains had been recovered from an area immediately to the south of a large Early Saxon mixed cremation and inhumation cemetery excavated in the

1980s at Springfield Lyons, where a probable 139 inhumations were identified and 143 cremation burials were recovered (Tyler and Major 2005, 5). A full catalogue of identifiable bone and summary of each burial is available in the project archive.

All samples were cleaned and sorted by ECC FAU prior to examination by the author. To determine the level of fragmentation, the material was passed through a series of graded sieves to separate the fractions >10mm, >4mm and >2mm. All weights were measured in grams and the percentage of each context represented by each fraction or body area was calculated. The largest piece of bone present was measured, with visual estimation of mean fragment size to the nearest 5mm. The colour of the bone was described with reference to Holden *et al* (1995 a and b) and McKinley (2004).

Age estimation was based on the presence of fused epiphyses and vertebrae (Scheuer and Black 2000), complete formation of the permanent tooth roots (Gustafson and Koch 1974) and on the notable size and robustness of the bone elements themselves (though it is recognised that this method has its limitations due to the variability of shrinkage during dehydration (McKinley 1994a). A partially preserved auricular surface enabled a tentative estimation of adult age for one deposit (Lovejoy *et al* 1985). Insufficient bone survived for the estimation of sex for any of the individuals represented.

Results

Total weight of bone

A total of 3583.0g of burnt bone was present. Discounting the single fragment of endocranial bone from the fill of pit 118, as this is undoubtedly re-deposited from a nearby burial or potentially from a pyre site, the weight of bone in each feature ranged from 5.5g–553.1g with a mean weight of 115.7g. The results for each deposit can be seen in Appendix 4. Two contexts of burnt bone were recovered from burial 124, 244.2g from within the burial vessel (126) and 120.2g from within the fill (125) of the burial cut. The overall totals for this feature have been presented throughout this report.

Although fragmentary, the bone was fairly well preserved though there was a clear bias towards the preservation of cortical, rather than trabecular (spongy) bone. Cremation 124 was a notable exception to this with a substantial quantity of spongy bone from the vertebrae present. In contrast cremation 136 was composed predominantly of unidentifiable splinters and fragments of long bone cortex. The weight of bone present was heavily influenced by the, often severe, level of truncation of the burials (Chart 1).

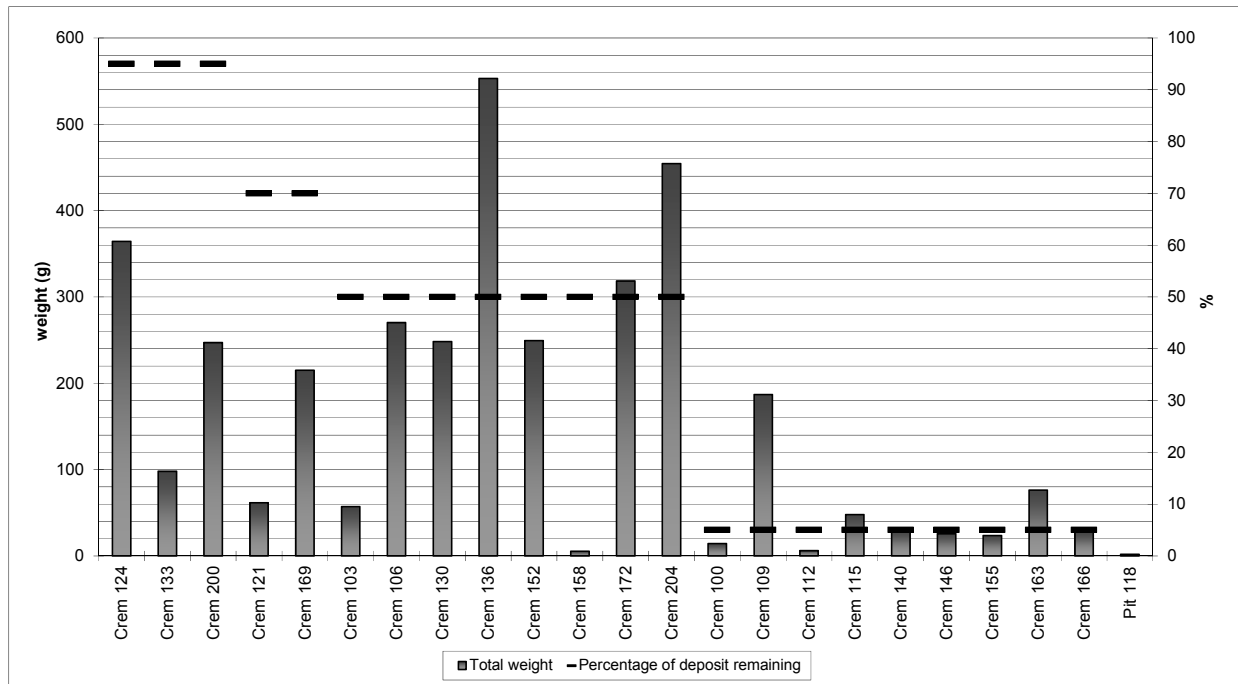


Chart 1. Total weight of bone and estimated percentage of original deposit remaining at excavation

The bone from Pit 118 has been excluded from all following analyses.

Minimum number of individuals

No repeated elements or osteological inconsistencies were identified in any samples and it is concluded that each cremation vessel contained the remains of one individual.

Age at death

Excluding the redeposited remains from pit 118, the assemblage included nine adults, one of whom was in middle age, six probable adults and a subadult (burial 100). A fragment of auricular surface enabled a more accurate estimate of age at death (35–45 years) from burial 172.

Health and disease

The vertebral fragments from burial 124 were sufficiently well preserved to enable observation of a Schmorl's node in the inferior surface of the centrum of the second lumbar vertebrae. This small depression results from herniation of the intervertebral disc and may be associated with the level of manual work undertaken. However, the strongest correlation of the condition is with advancing age.

Pyre technology and ritual

Oxidation:

The colour of burnt bone represents the degree of oxidation which occurs on the pyre and is a result of both the temperature and availability of oxygen during the cremation process. Sixteen cremation samples were a uniformly off-white colour indicating almost complete oxidation, and cremation at temperatures in excess of 600°C (Holden *et al* 1995 a and b). Six of the remaining samples contained bone which was 90% off-white and 10% light bluish grey. An area of less well calcined bone was present on the tibial shaft of burial 204. A small percentage of dark grey bone was noted in burial 172, and demonstrates that oxidation had taken place less evenly.

Fragmentation and dehydration:

The maximum fragment size seen was 77.5mm in burial 169 (Appendix 4 **Error! Reference source not found.**). Estimated mean fragment size ranged from 5mm or less (nine deposits) to 40mm (burial 169) with 18/23 burials (78.3%) containing bone with an estimated mean fragment size of 25mm or less. The patterns of cracking and warping were consistent with the cremation of fleshed remains (wet bone).

Burials 100, 112 and 158 did not contain any bone in the >10mm fraction. The quantity of bone recovered from burial 158 was very small, whilst both of the other deposits were heavily truncated and this is likely to have been the greatest influencing factor. Again, burial 169 contained the largest percentage of fragments in the biggest fraction, which can in part be explained by the relatively low level of truncation seen (c.30%).

All areas of the body were represented, though not in all deposits. The degree of truncation undoubtedly compromises interpretation of any possible patterns, but the identifiable bone followed the fragmentation patterns seen elsewhere with separate vertebral bodies, femoral, tibial and humeral shaft generally identifiable, and a number of anatomically distinct pieces of bone present, such as the right radial head in burial 136. The distinctive lamination of the cranial vault and meningeal impressions enable even small fragments to be easily identified and explains the bias towards this area. There were a small number of tooth fragments present, though none were identifiable to the exact tooth position.

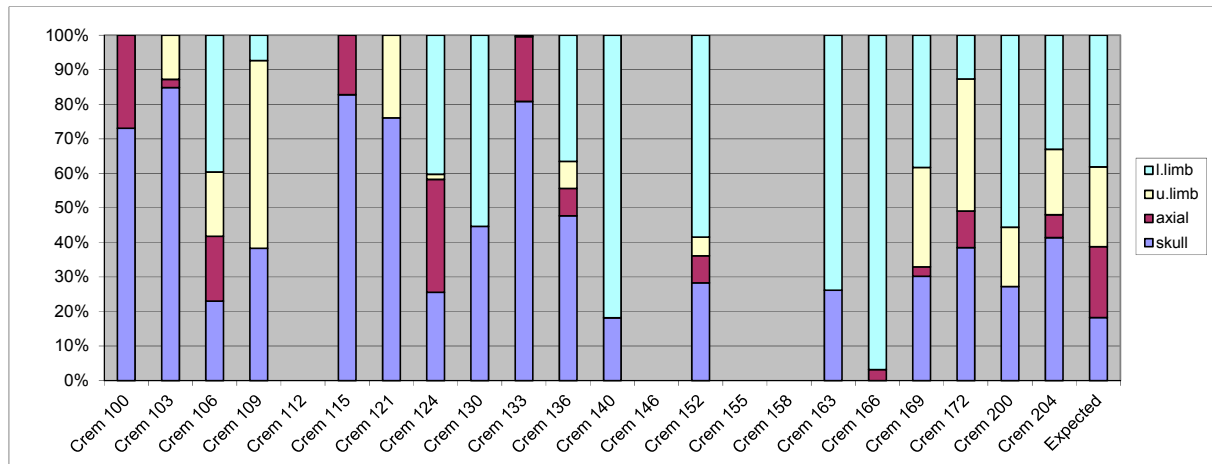


Chart 2. Percentage of identifiable bone in each body area

In almost all instances, there was a bias towards the easily identifiable cranial vault and/or robust elements of the lower limbs (Chart 2). Burial 136 was predominantly composed of unidentifiable splinters and fragments of long bone cortex, whilst burial 106, which was an estimated 50% complete, conformed most closely to the expected distribution pattern. No identifiable bone was seen in burials 112, 146, 155 or 158, all of which had produced extremely low weights of bone (Chart 1).

Discussion and conclusions

Although this group of cremation burials is relatively small and heavily truncated, analysis nonetheless enables discussion of the process and rituals of cremation and interment. The group contains both adults and a sub-adult, with degenerative disease in the spine of one individual suggesting that at least some of the population attained a reasonably old age. Previous work stated that the cremation burials recovered included individuals of all ages including a multiple burial of an adult and child (Mays 2005, 10–11).

Since the cremation of an adult can be expected to produce 1600–3600g of burnt bone (McKinley 1989), the weight of bone recovered from the vessels clearly does not represent complete individuals. In their report on the previous excavations at the Springfield Lyons site, Tyler and Major (2005, 10) noted that only a few handfuls of bone had been placed in each urn. However a high degree of truncation was also noted and with nine vessels containing over 500g of bone and one containing 1100g (Mays 2005, 11–12), it is probable that at least some of the original burials contained largely complete individuals. At Plot L, when it is considered that burial 136 was only c.50% complete, this indicates that the amount of burnt bone present in the original burial could have been around 1.5kg, sufficient to represent careful collection of most of the remains from the pyre, and the same may be true

for burial 204. It appears that the burials from the previous phases of excavation and this group are substantively similar in this respect.

Comparative data indicates that a low total weight of bone is common in burials of this date. At Rayleigh, Essex, the total weight range was 0.4–1241.6g (mean 325.9g) (Powers 2008), whilst at Spong Hill the range was 117.2g–3105.1g (mean 812.4g) (McKinley 1994a). At Worthy Park, Hampshire, preservation of the 46 cremation burials which were recovered was similarly compromised by later truncation, with just four burials containing more than 100g of bone. However, two complete or nearly complete vessels were recovered and each of these also contained only small quantities of bone, suggesting that deliberately ‘token’ collection was common (Hawkes and Grainger 2003, 113). Between 2g and 1350g, with an average of 268g, of burnt bone was recovered from the 29 cremation burials at Lechlade, Gloucestershire (Boyle *et al* 1998).

This raises the question of the fate of the remaining bone from an individual following cremation. It is unfortunately not possible to determine on osteological grounds whether one individual might be split between different vessels buried in relative proximity. The scattering of (perhaps further processed) remains or longer term curation of partial remains and their eventual disposal elsewhere should also be considered a possibility.

Whilst fluctuations in the level of truncation complicate interpretation of individual deposits, overall the evidence suggests that both efficient careful collection of complete or largely complete remains and ‘token’ collection of smaller quantities of bone were practiced in this period and that the burials at Plot L are no exception.

The colour of the burnt bone can be used to indicate the efficiency of the cremation process (Lee Lyman 1994). The cremation of the human body requires a minimum temperature of 400°C (McKinley 1994a) and the almost uniformly off-white or light bluish grey colour of the bone in these burials indicates that even and sustained temperatures of 600°C or more were reached in all cases. The cremated remains recovered during the 1980s excavations were reported to have also been well calcined, with melted glass and distorted copper alloy objects indicating that the pyre reached temperatures between 850-1000°C (Mays 2005, 10-11).

Only six deposits were comprised of 50% or more bone in the >10mm fraction. This compares to half the burials from Spong Hill and over 70% of those from Rayleigh (McKinley 1994a, Powers 2008). Modern cremations demonstrate that fragments of bone up to 250mm

remain immediately after cremation (McKinley 1994a and b). With a maximum fragment under a third of this size observed, the bone from Plot L must be interpreted as having been fragmented further, most likely by a combination of the movement of the hot and brittle remains during tending the pyre or perhaps its collapse and in the subsequent collection and also due to the post depositional environment (fluctuations in temperature and moisture content causing existing fissures to open up) and the plough damage. There is no evidence to suggest deliberate breakage of the remains, particularly since in some deposits, pieces such as vertebral bodies remained as they would have done after the initial cremation. The range of maximum fragment size is also similar to that of 4–62mm seen at Rayleigh (mean 31mm) and the mean to that seen at Lechlade, Gloucestershire (average 48mm) (Powers 2008, Boyle *et al* 1998).

No consistent pattern could be identified in the areas of the body which were present. Although interpretation is severely compromised by the level of truncation, the presence of bone from most body areas in most deposits would argue against deliberate selection. In burial 172 the identifiable bone came predominantly from upper body and skull, in contrast to the large quantities of lower limb seen in many other deposits, perhaps suggesting that the legs had been uppermost in the vessel. This in turn would indicate that, assuming the bone was collected from the pyre directly into the vessel in which it was buried, that collection began at the head end of the pyre and worked towards the feet. The absence of any apparent collection bias is consistent with findings from other Saxon cremation cemeteries (McKinley 1994a; Powers 2008).

6.6 Other Finds

Single pieces of worked flint were retrieved from only two contexts; a small debitage flake from 160, the fill of cremation vessel 159 (burial 158) and a possible core from 188, the fill of prehistoric pit 189 (Appendix 2).

A single fragment of combed box flue tile was collected from the fill of ditch segment 187. This is of Roman date, though the feature would appear to be prehistoric.

Very small quantities and sized-fragments of baked clay were collected from contexts 120 (pit/posthole 120, 182 and 183 (both ditch 181). None of these have surfaces and are not diagnostic of type or date. The larger assemblage from fill 191 (ditch 190) possibly derives from a single fragmentary object, crafted in a dense sandy clay with small burnt flint inclusions and burnt to a reddish mid-brown colour. The largest piece has smoothed and

rounded external surfaces, suggesting a vaguely rounded object, such as a weight of some sort?

6.7 Environmental Material

A total of 23 bulk soil samples were collected from the fills of cremation burials, primarily comprising the cremation vessel and its contents. Taken for the purposes of both finds retrieval and plant macrofossil recovery, all were subject to processing. The samples are summarised below. Extracted artefacts, including burnt bone, have been subsumed into the relevant finds reports. Bulk sample numbering follows on from Plot K.

The recovered bulk soil samples were processed by wet sieving with flotation using a 0.5mm mesh and collecting the flotation fraction (flot) on a 0.5mm sieve. The residue was then dried and separated using 2mm and 4mm sieves. All the material larger than 2mm (the coarse fraction) was sorted by eye and both artefacts and ecofacts extracted. The material smaller than 2mm (the fine fraction) was saved but not sorted. All flots have been dried and scanned for ecofact presence - e.g. seeds. As extracted artefacts have been considered in the finds report, where pertinent, only the ecofacts are described in the following text.

Sample	Context	Type	Feature	Sample size	Ecofact content
10	102	Fill in vessel 101	Burial 100	6 litres / 7.5kg	charcoal, modern root material
11	111	Fill in vessel 110	Burial 109	0.5 litres / 1kg	charcoal, roots
12	114	Fill in vessel 113	Burial 112	0.5 litres / 2kg	charcoal, carbonised seed?, roots
13	117	Fill in vessel 116	Burial 115	1 litre / 3kg	no significant ecofact content, roots
14	125	Backfill in pit 124	Burial 124	0.25 litres / 1kg	Charcoal, x2 carbonised seeds?, roots
15	132	Fill in vessel 131	Burial 130	9 litres / 8kg	charcoal, carbonised seed, roots
16	148	Fill in vessel 147	Burial 146	0.5 litres / 2kg	Charcoal, roots
17	142	Fill in vessel 141	Burial 140	0.5 litres / 2kg	Charcoal, roots
18	154	Fill in vessel 153	Burial 152	4 litres / 5kg	Charcoal, roots
19	157	Fill in vessel 156	Crem 155	1 litre / 2.5kg	Charcoal, roots
20	165	Fill in vessel 164	Crem 163	0.5 litres / 1.5kg	no significant ecofact content, roots
21	171	Fill in vessel 170	Crem 169	2 litres / 3.5 kg	Nutshell?, roots
22	168	Fill of 166 & 167	Crem 166	0.5 litres / 2kg	Charcoal, roots
23	174	Fill in vessel 173	Crem 172	4 litres / 4kg	Charcoal, roots
24	139	Fill in vessel 138	Crem 136	5 litres / 5kg	charcoal, carbonised seed?, roots
25	203	Fill in vessel 202	Crem 200	0.25 litres	Charcoal, roots
26	205	Fill in vessel 206	Crem 204	6 litres / 6kg	Charcoal, roots
27	127	Fill in vessel 126	Crem 124	3 litres / 3kg	no significant ecofact content, roots
28	160	Fill in vessel 159	Crem 158	2 litres / 1 kg	Charcoal, roots
29	108	Fill in vessel 107	Crem 106	1 litre / 1.5kg	no significant ecofact content, roots
30	105	Fill in vessel 104	Crem 103	1 litre / 2kg	Charcoal, roots
31	123	Fill in vessel 122	Crem 121	3 litres / 3kg	Charcoal, roots
32	203	Fill in vessel 202	Crem 200	2 litres / 2kg	Charcoal, roots
33	135	Fill in vessel 134	Crem 133	4 litres / 2kg	Charcoal, roots

Results

All of the samples, deriving exclusively from cremation burial contexts, were of a similar character. All were dark greyish brown silty clay deposits containing pebbles of variable sizes, charcoal and burnt bone. Root disturbance of a number of graves was noted in the field.

The washing through and flotation of the bulk soil samples was successful enough, with the resultant coarse and fine fractions being clean and light material such as charcoal and roots floating adequately. It is judged that effective recovery of ecofactual material present in the samples was achieved.

Being from cremation burials, all the bulk samples yielded similar results to one another.

The coarse fractions (>4mm) comprised rounded flint gravel generally up to 50mm in size, but little else.

The fine fractions (<4mm) were a mix of small flint grits and chips and pottery crumbs and burnt bone fragments deriving from the cremation burials themselves. Small quantities of very small fragments and flecks of charcoal were also present in these and in the flots. Recoverable fragments were present in approximately half of the samples, though only in very small quantities and generally less than 4mm in size. It is also worth noting that hand-collected charcoal fragments recovered during excavation were equally sparse, context assemblages ranging from 1 to 15 pieces with negligible weight values. The only other ecofacts to be recovered were possible carbonised seeds from sample 12 (fill 114), 14 (fill 125), 24 (fill 139) and 15 (fill 132). These amount to only one or two from each sample. Additionally, two small fragments of possible charred nutshell were extracted from sample 21 (fill 171).

As well as fine charcoal flecks/dust in the flots, modest amounts of modern fine root material was also extracted from virtually all of the bulk soil samples. Given the relatively charcoally and rich nature of the soils filling the cremation graves, this is perhaps not surprising.

Conclusion

Overall, the low quantity and small size of charcoal fragments and the even lower quantity of definite carbonised cereals/seeds and nuts makes this sparse assemblage of low value for the study of either the general early Saxon environment or the composition of the pyres and graves themselves. It would appear that little pyre debris was selected for inclusion in the

graves and that the burnt material that is present is an incidental rather than deliberate inclusion. However, this assemblage could perhaps be considered further together with any more productive material collected from areas of site excavated in the future. As such all the fine fractions, flots and extracted ecofacts will be retained for the time being, pending on the results of future fieldwork. Only the coarse fractions should be discarded in the meantime.

7.0 DISCUSSION

Prehistoric

No remains of identifiably Neolithic date were recorded within Plot L and it is assumed that activity of such date was predominantly located further east, within the interior of the earlier causewayed enclosure. The low density of diagnostically later prehistoric features and paucity of artefacts of this date either occurring *in situ* or residually would appear to substantiate the view that the vicinity surrounding the late Bronze Age enclosure was unoccupied and probably utilised only as small in-fields or paddocks - particularly to its north and west. As such, the discovery of this fragment of apparent enclosure system is significant. *[NB: it remains possible that all the prehistoric material, and possibly even the fragment of Roman tile, is entirely residual and that these features are in fact Saxon or medieval in date]*

Late Iron Age and Roman

The absence of late Iron Age and Roman remains, other than a single ?intrusive fragment of combed box flue tile and a single sherd of probable Roman pottery, is entirely in keeping with the findings of previous work in this vicinity.

Early Saxon

The northern and western extents of the Early Saxon cemetery have been further clarified by this work (Fig. 3). The additional 22 cremation burials identified augment and corroborate the conclusions of the analysis of the earlier excavated examples and demonstrate that there is indeed a distinct northwestern cluster (Group 14) that rapidly reduces to sporadic outlying cremation burials at the very peripheries of the cemetery. Being part of the same group, there is considerable similarity in terms of chronology, vessel types (including ratio of decorated to undecorated examples), cremation burial morphology and survival, paucity of pyre/cremation burial goods and even in character of the interred cremated remains.

The results of controlled removal of fills from the more complete funerary vessels indicates that the bulk of the burnt bone was deposited in the lower part of the pot with smaller flecks of bone and flecks of charcoal spread more throughout the fill. This implies that the amount of bone in some of the truncated burials is perhaps closer to the original interned amount than was perhaps expected. Clearly, the burnt bone represents only a sample collected from the funerary pyre and within this there is a bias towards the more easily identifiable cranial fragments. The Plot L results mirror those from the previous excavation (Tyler and Major 2005, 10) for which it was concluded that only a few handfuls of bone had been collected and placed in each urn.

The absence of inhumations within the investigated part of Plot L is notable, and confirms that these are almost entirely confined either to the interior of the Late Bronze Age enclosure or the area to its southwest. Although rare across the cemetery as a whole, the absence of associated structures such as ring-ditches and obvious markers is pointed out.

Later Saxon

Although there is a scatter of undated small pits and/or post-holes across the excavated site, no tangible settlement remains of later Saxon date are present. It would appear that the settlement does not extend this far north - rather continuing south and perhaps west from its currently known extents, if at all. It is however reasonable to assume that the land surrounding the settlement manorial settlement was used for agricultural purposes and the discovery of further field boundaries of Late Saxon date, such as those crossing Plot K, may be predicted.

Post-Saxon landuse

None of the recorded remains are demonstrably later than the Saxon period, other than the modern (1990s) service trench. With the focus of the manorial settlement moving southwards to the current location of Cuton Hall, the absence of remains relating to medieval land-use activity is perhaps not unexpected.

8.0 CONCLUSIONS AND ASSESSMENT OF RESULTS

If the identification of the fragment of rectilinear ditch system as Late Bronze Age is correct, the Plot L investigations have provided some useful insight into the nature of land-use in the immediate vicinity of, and relating to, the enclosed settlement. These results support the view that settlement activity was almost exclusively confined to the enclosure (excepting the Plot K structure?) and suggest that it was perhaps surrounded by a field system and/or

animal corrals/paddocks. The presence of pits, though their sparse artefactual content is not particularly instructive, hints at some further activity being conducted just outside the settlement. Remains of this land-use almost certainly continue southwards and will be important to investigate in order to clarify their nature, function and date.

The exploration of a further part of the Early Saxon cemetery has seemingly confirmed its western and northwestern extent, though also demonstrating that sporadic outlying burials can be expected. It is predicted that more cremation burials will be present to the south of the car park area, presumably similarly decreasing in density from east to west. It appears unlikely that inhumation burials will extend so far west. The absence of identified cemetery remains in Plot N trial Trenches 2 and 3 indicates that that it does not continue so far west. It may be useful to determine whether or not 1981-91 gully 8523 (Tyler and Major 2005, Fig.68) marks the limit of the cemetery - or the later Saxon settlement for that matter. The completion of the cemetery excavation would be a significant achievement; achieving a more-or-less complete dataset for a cemetery of this date, size and importance is a relatively rare occurrence.

While the later Saxon settlement does not extend north and northwest as far as Plot L, it would appear that at least some apparent outlying structures (e.g. further parts of enclosure fence PL6907 and building/pen B19; *ibid.* Fig.68) might continue west into Plot N, along with gully 8523 (really a shallow boundary ditch?) mentioned above. Investigation of the western part of this important Saxon manorial settlement and determination of its boundary, if present, would be of high importance.

The demonstrated likelihood that further prehistoric land-use, Early Saxon cemetery and later Saxon settlement remains are present to the west of the 1981-91 site and south of Plot L has clear implications for the development of this part of the business park. It is anticipated that area excavation, preferably in conducive conditions, leading to a programme of analysis, comparison and integration with the 1981-91 site results, and cumulative publication will be necessitated in such an event.

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APPENDIX 1: CONTEXT DATA

All dimensions given in metres

Context	Type	Filled by	Description	Soil sample	Period
100	Crem pit	101, 102	Unknown, ephemeral & indistinct in subsoil. Truncated		E Saxon
101	Vessel in 100	-	Only vessel base survives, fragmentary		
102	Fill in 101	-	Dark greyish brown clayey silt with freq Cremation buriall, inc. burnt bone	10	
103	Crem pit	104, 105	?circular cut, 0.2m diam x 0.15m deep. Truncated		E Saxon
104	Vessel in 103	-	Only vessel base survives, fragmentary		
105	Fill in 104	-	Dark grey-brown clay silt	30	
106	Crem pit	107, 108	Unknown, ephemeral & indistinct in subsoil. Truncated		E Saxon
107	Vessel in 106	-	Only vessel base survives, fragmentary		
108	Fill in 107	-	Dark grey-brown clay silt with small Cremation buriall. In vessel 107	29	
109	Crem pit	110, 111	Unknown, ephemeral & indistinct in subsoil. ?Machine truncated		E Saxon
110	Vessel in 109	-	Only vessel base survives, fragmentary		
111	Fill in 110	-	Dark brown silt, inc. rare burnt bone frags.	11	
112	Crem pit	113, 114	Circular cut, 0.2m diam x 0.05m deep. Truncated		E Saxon
113	Vessel in 112	-	Only vessel base survives, fragmentary		
114	Fill in 113	-	Grey-brown ashy clay silt, occ. burnt bone frags	12	
115	Crem pit	116, 117	Unknown, ephemeral & indistinct in subsoil. Truncated		E Saxon
116	Vessel in 115	-	Only vessel base survives, fragmentary		
117	Fill in 116	-	Dark grey-brown clay, occ. rounded stones	13	
118	Pit/post-hole	119, 120	Unknown, very poorly defined, indistinct in subsoil. Truncated		?Rom +
119	Pot in 118	-	Very fragmentary pot fragment		
120	Fill in 118	-	Greyish brown clay silt, common Cremation buriall inclusions, rooty.		
121	Crem pit	122, 123	Oval cut, 0.4m x 0.35m x 0.12m deep. Truncated		E. Saxon
122	Vessel in 121	-	Most of vessel survives, inc. some rim		
123	Fill in 122	-	Mid brownish grey sandy silt with small stones	31	
124	Crem pit	125-127	Oval cut, 0.50m x 0.42m x 0.18m deep.		E. Saxon
125	Backfill of 124	-	Mid grey clay with common stones, inc burnt bone	14	
126	Vessel in 124	-	Fairly complete vessel, only rim missing?		
127	Fill in 126	-	Dark greyish brown clay silt	27	
128	Post-hole	129	Circular cut, 0.22m diam x 0.09m deep. Truncated.		?
129	Fill of 128	-	Dark grey silty clay with occ. small stones & charcoal flecks		
130	Crem pit	131, 132	Circular cut.		E. Saxon
131	Vessel in 130	-	Half of vessel survives, fragmentary. Truncated.		

Context	Type	Filled by	Description	Soil sample	Period
132	Fill in 131	-	Greyish brown sandy silt, occ. stones, charcoal frags & flecks, inc. burnt bone	15	
133	Crem pit	134, 135 143	Circular cut, 0.3m diam x 0.14m deep		E. Saxon
134	Vessel in 133		Most of vessel, only rim slightly truncated (c. 0.16m wide x c. 0.13m tall)		
135	Fill in 134		Mid greyish brown clay silt in top (cremated material not visible)	33	
136	Crem pit	137-139	Circular cut, 0.36m diam x 0.14m deep		E. Saxon
137	Backfill of 136	-	Light greyish brown silty clay with occ. small stones		
138	Vessel in 136	-	Half of vessel survives, fragmentary & crumbly		
139	Fill in 138	-	Dark grey silty clay, inc occ. charcoal flecks & common burnt bone frags	24	
140	Crem pit	142	Circular cut, 0.24m diam x 0.05m deep		E. Saxon
141	Vessel in 140	-	Base of vessel only, fragmentary		
142	Fill in 141	-	Mid yellowish grey silty clay with rounded stones	17	
143	Fill of 133		Mid greyish brown clay silt		
144	Post-hole	145	Circular cut, 0.44m diam x 0.2m deep.		?
145	Fill of 144	-	Mid greyish brown sandy clay with occ. stones, inc. occ. charcoal flecks		
146	Crem pit	147, 148	?Circular cut, c. 0.12m + x 0.03m deep. Indistinct, very truncated		E. Saxon
147	Vessel in 146	-	Base of vessel, fragmentary. Truncated.		
148	Fill in 147	-	Mid greyish brown clayey silt, inc. frequent burnt bone frags	16	
149	Post-hole	150	Circular, 0.3m diam x 0.1m deep.		?
150	Fill of 149	-	Brownish grey sandy silt with occ. small stones, inc. charcoal flecks & frags, rare burnt bone		
151	Surface find	-	Pottery sherds c. 5m north of post-hole 149		
152	Crem pit	153, 154	?circular cut, ?0.26m diam x 0.08m deep. Truncated by modern disturbance		E. Saxon
153	Vessel in 152	-	Base of truncated vessel, fragmentary		
154	Fill in 153	-	Greyish brown sandy silt, occ. small stones and charcoal flecks & frags, inc. burnt bone frags	18	
155	Crem pit	-	Unknown, ephemeral & indistinct in subsoil. Truncated		E. Saxon
156	Vessel in 155	-	Base of truncated vessel, fragmentary		
157	Fill of 156	-	Mid greyish brown clay	19	
158	Crem pit	159, 160	Slightly oval cut, 0.3m x 0.26m x 0.12m deep. Truncated		E. Saxon
159	Vessel in 158	-	Half of truncated vessel		

Context	Type	Filled by	Description	Soil sample	Period
160	Fill of 158	-	Mid yellowish grey silty clay with stones, inc. charcoal flecks	28	
161	Gully	162	Linear cut, 2.0m+ x 0.66m x 0.1m deep, E-W aligned. In trial-trench 1		LBA?
162	Fill of 161	-	Light brownish grey sandy silt with frequent Cremation burials. Single fill. One sherd of pottery.		
163	Crem pit	164, 165	Oval, Indistinct, 0.34m x 0.3m x 0.06m deep. Truncated		E. Saxon
164	Vessel in 163	-	Base of truncated vessel, fragmentary		
165	Fill in 164	-	Greyish brown sandy silt, with rare stones & charcoal flecks, inc. burnt bone	20	
166	Crem pit	167, 168	Unknown, ephemeral & indistinct in subsoil. Vessel base on surface. Truncated		E. Saxon
167	Vessel in 166	-	Base of truncated vessel, fragmentary		
168	Fill of 166&167	-	Mid orangy brown sandy clay with rare stones, inc. occ. burnt bone	22	
169	Crem pit	170, 171	Circular cut, 0.46m diam x 0.09m deep. Truncated		E. Saxon
170	Vessel in 169	-	Two thirds of truncated vessel.		
171	Fill in 170	-	Greyish brown sandy silt with rare stones, inc charcoal frags & flecks	21	
172	Crem pit	173, 174	0.2m+ diam x 0.08m deep. Ephemeral & indistinct in subsoil. Truncated		E. Saxon
173	Vessel in 172	-	Base of truncated vessel		
174	Fill in 173	-	Mid brownish grey clay silt, inc. burnt bone frags	23	
175	Fill of 176	-	Mid-dark greyish brown clay silt, inc. rare charcoal flecks. Root disturb. No finds		LBA?
176	Pit	175	Oval cut, 1.2m x 0.8m x 0.12m deep. Roughly N-S aligned		
177	Ditch seg.	178	Linear cut, 1.1m+ x 0.82m x 0.12m deep. Approx N-S aligned. Same ditch as 187		LBA?
178	Fill of 177	-	Brownish grey sandy silt clay with occ. stones, inc. charcoal rare flecks		
179	Pit	180	Oval cut, 0.4m x 0.28m x 0.13m deep. NW-SE aligned		LBA?
180	Fill of 179	-	Mid brownish grey clayey silt with frequent stones		
181	Ditch seg.	182, 183	Linear cut, 1.0m+ x 1.1m x 0.29m deep. E-W aligned. Same ditch as 190		LBA?
182	Fill of 181	-	Lower fill. Light yellowish grey sandy clay with small/med pebbles, iron pan, inc. charcoal flecks		
183	Fill of 181	-	Upper fill. Mid yellowish grey sandy clay with small stones, inc. charcoal		
184	Fill of 185	-	Mid greyish brown sandy clay silt with rare stones. Flecks of iron pan, roots		?
185	Post-hole?	184	Oval cut, 0.35m x 0.3m x 0.15m deep. Could be natural? In trial-trench 2		
186	Fill of 187	-	Dark brownish grey silty clay, occ. pebbles, inc. occ. charcoal flecks		LBA?
187	Ditch seg.	186	Linear cut, 2.0m+ x 0.74m x 0.12m deep. N-S aligned. Terminal at south end. Same ditch as 177		

Context	Type	Filled by	Description	Soil sample	Period
188	Fill of 189	-	Mid/dark brownish grey clay silt with common stones, inc. rare charcoal flecks		LBA?
189	Pit	188	Sub-square cut, 1.0m x 0.9m x 0.14m deep. Flat bottomed		
190	Ditch seg.	191	Linear cut, 1.0m+ x 0.80m x 0.25m deep. E-W aligned. Same ditch as 181		LBA?
191	Fill of 190	-	Mid greyish brown to mid brown silty clay with occ. Cremation buriall. Root disturb.		
192	Gully / pit	193	Elongated cut, 1.2m x 0.42m x 0.19m deep. Pointed end to south		LBA?
193	Fill of 192	-	Mid brownish grey clayey silt with occ. small flints, inc. common charcoal flecks		
194	Pit	195	Irregular oval cut, 0.45m x 0.38m x 0.18m deep		LBA?
195	Fill of 194	-	Mid/dark grey sandy clay silt, rare small stones, inc. occ. charcoal flecks		
196	Pit	197	Sub-circular cut, 0.46m x 0.40m x 0.21m deep.		LBA?
197	Fill of 196	-	Mid/dark grey sandy clay silt with rare stones, inc. occ. charcoal flecks		
198	Post-hole / pit	199	Oval cut, 0.26m x 0.2m x 0.18m deep.		?
199	Fill of 198	-	Mid grey to greyish brown clay silt		
200	Crem pit	201-203	Oval cut, 0.38m x 0.32m x 0.20m deep		E. Saxon
201	Fill in 202	-	Mid greyish brown clay silt in top of vessel (cremated material not visible)	32	
202	Vessel in 200	-	Vessel 95% + complete		
203	Fill of 200	-	Mid greyish brown clay silt	25	
204	Crem pit	205, 206	Circular cut, 0.3m diam x 0.06m deep. Shallow & truncated		E. Saxon
205	Fill of 206	-	Mid greyish brown clay silt , common Cremation buriall inclusions. Burnt bone.	26	
206	Vessel in 204	-	Base of truncated vessel, fragmentary		
207	Finds	-	Surface finds from prehist ditch (E of seg.181)		LBA?

APPENDIX 2: FINDS DATA

(NB: pottery from highly fragmented single vessels counted as one sherd)

All weights in grammes

Context	Feature	Count	Weight	Description	Date	
101	100	1	392	Pottery: carinated bowl, c.35% complete, fragmented	Early Saxon	
102			14.2	Cremated bone	-	
104	103	1	627	Pottery: large jar, c.25% complete, fragmented	Early Saxon	
105				57.2	Cremated bone	-
107	106	1	120	Pottery: vessel base & body, very fragmented	Early Saxon	
108				270.2	Cremated bone	-
110	109	2	327	Pottery: vessel base, body & rim, fragmented. Also sherd from other vessel	Early Saxon	
111				186.9	Cremated bone	-
113	112	1	1	Pottery: large jar base, fragmented	Early Saxon	
114				6.1	Cremated bone	-
116	115	1	334	Pottery: jar base, very fragmented	Early Saxon	
117			1	22	Prehistoric pottery: base sherd, fabric D	L. Bronze Age
				48.1	Cremated bone	-
120	118	1	18	Roman pottery: sandy greyware sherd	Roman	
		1	4	Baked clay	-	
122	121	1	704	Pottery: lugged bowl, c.85% complete, fragmented	Early Saxon	
123				61.6	Cremated bone	-
125	124		120.2	Cremated bone	-	
126		1	749	Pottery: bossed urn, c.75% complete, fragmented	Early Saxon	
127				244.2	Cremated bone	-
131	130	1	647	Pottery: Bossed urn, c.35% complete, fragmented	Early Saxon	
132				248.4	Cremated bone	-
			3	-	Cu alloy object: 3 binding strip fragments. SF15	-
134	133	1	929	Pottery: globular bowl, c.90% complete, fragmented	Early Saxon	
135				98.0	Cremated bone	-
138	136	1	697	Pottery: footring jar, c.30% complete, fragmented	Early Saxon	
139				553.1	Cremated bone	-
141	140	1	109	Pottery: vessel base & body, very fragmented	Early Saxon	
142				29.5	Cremated bone	-
147	146	1	161	Pottery: footring base, fragmented	Early Saxon	
148				25.7	Cremated bone	-
151	-	11	59	Pottery: vessel body sherds (same vessel as 153)	Early Saxon	
		2	9	Prehistoric pottery: fabric E	L. Bronze Age	
153	152	1	774	Pottery: globular jar, c.25% complete, fragmented	Early Saxon	
154				249.5	Cremated bone:	-
156	155	1	375	Pottery: Globular jar, c.40% complete, fragmented	Early Saxon	
157				23.6	Cremated bone:	-
159	158	1	520	Pottery: globular jar, c.50% complete, fragmented	Early Saxon	
160			1	2	Worked flint: debitage flake, no retouch	Prehist
					5.5	Cremated bone
162	161	2	4	Pottery: body sherds, (same vessel as 164?)	Early Saxon	
164	163	1	298	Pottery: globular jar, very fragmented	Early Saxon	
165				76.4	Cremated bone	-
167	166	1	270	Pottery: jar base & and body, fragmented	Early Saxon	
168				27.6	Cremated bone	-
170	169	1	584	Pottery: c.50% complete, fragmented	Early Saxon	
171				215.0	Cremated bone	-
173	172	1	585	Pottery: large globular jar, c.50% complete, fragmented	Early Saxon	
174				318.5	Cremated bone	-
178	177	2	5	Prehistoric Pottery: fabric C	L. Bronze Age	
		1	140	Roman tile: box flue fragment, combed	Roman	
180	179	2	10	Prehistoric pottery: fabric D	L. Bronze Age	
182	181	1	61	Prehistoric pottery: fabric D, slab-built	L. Bronze Age	
		1	8	Baked clay	-	
183		7	98	Prehistoric pottery: fabric D, impressed cordon	L. Bronze Age	

		2	8	Baked clay	-
188	189	86	338	Prehistoric pottery: inc. rim shed, fabric C	L. Bronze Age
		1	28	Worked flint: possible core fragment	Prehist?
191	190	2	18	Prehistoric pottery: tripartite bowl? shoulder, fabric D	L. Bronze Age
		11	176	Baked clay	
202	200	1	991	Pottery: high-shouldered jar, c.80% complete, fragmented	Early Saxon
203			247.1	Cremated bone	-
205	204		454.4	Cremated bone	-
206		1	679	Pottery: large jar base & body, c.50% complete, fragmented	Early Saxon
207		-	2	38	Prehistoric pottery: jar sherds, fabric D

APPENDIX 3: SAXON POTTERY CATALOGUE

Context / Feature	Description of pottery	Date
101 in burial 100	Carinated bowl. c.35% vessel. Rim missing. Flat base. Top half of pot decorated with horizontal rows of stamps delineated by concentric necklines (grouped in twos). At least four rows. Two stamps used. Briscoe's types A5 bi (rosette circles with 10 spokes) and A9c (composite circles with petalled edge). Fabric 4. Inner dark brown. Outer and core dark grey to black. Max. girth approx. 150mm. Wt. 392g.	Early Saxon C6
104 in burial 103	Base, lower body sherds and 4 rim sherds of large jar (c.25% of vessel). Slightly concave base. Fabric: 3a Outer reddish-brown. Inner and core dark grey. Thick-walled (max. thickness 7mm). Max. girth 200mm. Max. base diam. 110mm. Surviving ht. 65mm. Wt. 627g.	Early Saxon
107 in burial 106	Base (very disintegrated) and 2 body sherds. Fabric 3a. Dark reddish-brown throughout. Outer smoothed. Wt. 120g.	Early Saxon
110 in burial 109	Base and lower body sherds and a rim sherd (the latter does not join but appears to be from the same vessel). Everted, rounded rim. Slightly sagging base. Fabric 4. Outer patchy orange-brown to black. Wt. 320g. Decorated sherd from a separate vessel. Bossed with deeply incised lines demarcating outline of boss. Stamps on and in between boss. One stamp used Briscoe's type C2aiii (grid rectangle). Fabric 1a. Outer and core dark grey. Inner dark reddish-grey. Wt.7g.	Early Saxon C6
113 in burial 112	Base of large jar. One large sherd, the rest disintegrated. Flat base. Thickness of wall at base 16mm. Fabric 1a. Outer reddish-orange. Inner and core reddish-brown. Max. diam of base 160mm. Wt.134g.	Early Saxon
116 in burial 115	Base of jar (mostly disintegrated). Fabric 3a. Outer orange brown. Inner and core black-brown. Max. wall thickness 14mm. Wt. 334g.	Early Saxon
122 in burial 121	Pedestal-footed bowl with two lugs. Everted, uneven rim. (c.85% of vessel, 30% of rim extant). Two unpierced lugs, which are not positioned symmetrically across the pot. Fabric 3a. Surfaces orange-brown. Core black. Max. rim diam. 150mm. Max girth 190mm. Max. base diam. 75mm. Wall thickness 9mm. Ht. 142mm.	Early Saxon C6
126 in burial 124	Decorated bossed urn. Rim missing (c.75% of vessel recovered). Flat base (very fragmented) 12 long bosses around girth, grouped in threes. Decoration comprises incised lines either side of each boss (2 each side). Fabric 1b. Smoothed outer dark brown over reddish-brown inner and core. Max. girth 235mm. Approx. base diam. 80mm. Max. Ht 175mm. Wt. 749g	Early Saxon C5-C6
131 in burial 130	Decorated bossed urn. Slight footring base. Very fragmented. (c.35% of pot recovered). Rim missing. Decoration comprising concentric necklines (at least two), underneath which are a series of applied solid long bosses, demarcated with an incised line either side of each boss (not possible to reconstruct exact decorative scheme). Fabric 1c. Dark grey throughout, outer surface smoothed. Even walled max. thickness 7mm. Wt. 647g.	Early Saxon C5-C6
134 in burial 133	Globular bowl with sagging base and everted, rounded rim (c. 90% of vessel, 50% of rim extant). Sagging base. Fabric 1c. Dark grey with smoothed outer surface. Max. rim diam. Max. girth 178mm. Max. base diam. 85mm. Wall thickness: 9mm at rim. Ht. 130mm. Wt.929g.	Early Saxon
138 in burial 136	Footring jar with everted, rounded rim. (c.30% of vessel recovered). Decoration comprising a series of long bosses demarcated, either side of each boss, by incised lines and infilled with	Early Saxon C6

	stamps (not possible to reconstruct complete decorative scheme). At least 3 stamps used Briscoe's types A2ai ((multiple circle), A5bi (rosette) and E1ai (plain triangle). Fabric 3a . Surfaces smoothed orange-brown. Core brown-black. Max diam. of base 90mm. Max.wall thickness 13mm. Wt. 697g.	
141 in burial 140	Base and body sherds. Base disintegrated. Fabric 3b . Dark reddish-orange throughout. Wt. 109g.	Early Saxon
147 in burial 146	Footring base. Fabric 4 . Inner and core reddish-brown. Outer black, smoothed. Max. diam of base c.90mm. Wt. 161g.	Early Saxon
151 surface find	Body sherds (11) same as vessel 153 below. Wt. 59g.	Early Saxon
153 in burial 152	Base and lower body of a globular jar. (c.25% of vessel recovered). Base disintegrated. Fabric 3b . Outer orange-brown. Inner and core brown-black. Max. wall thickness 11mm. Wt. 774g.	Early Saxon
156 in burial 155	Globular jar, base and lower body sherds. Flat base c.40% of vessel). Rim missing. Fabric 1c . Surfaces orange-brown. Core black. Max. wall thickness 10mm. Wt. 375g.	
159 in burial 158	Base and lower body of a globular jar. (c.50% of vessel recovered). Sagging base. Fabric 3a . Outer reddish-orange to reddish-brown. Inner and core black-brown. Max girth 165mm. Base diam c.100mm. Wall thickness 6mm. Ht. 102mm. Wt. 520g.	Early Saxon
162 fill of gully 161	Body sherds (2). From vessel 164 below (identical fabric). Wt 4g.	Early Saxon
164 in burial 163	Base and body sherds from a globular jar. Base mostly disintegrated. Several body sherds have finger -nail impressions in vertical rows, rudimentary decoration? Fabric 4 . Surfaces reddish-brown. Core black-brown. Wt. 298g	Early Saxon
167 in burial 166	Base and body sherds from a medium sized jar. Fabric 3b . Surfaces reddish-orange. Core black-brown. Base diam. c. 15mm. Wt. 270g.	Early Saxon
170 in burial 169	Globular jar with flat base. (c.50% vessel). Rim missing. Fabric 3b . Surfaces reddish-brown, core black-brown. Base diam. c. 130mm. Wt. 584g	Early Saxon
173 in burial 172	Large flat-based globular jar with everted, slightly beaded rim. c.50% vessel, including 25% of rim. Fabric 3b . Outer surface orange-red. Inner and core black-brown. Rim diam. c. 150mm. Wt. 585g.	Early Saxon
202 in burial 200	High-shouldered jar (rim missing). c.80% vessel recovered. Fill shows that base was sagging (now disintegrated). Lopsided profile. Fabric 4 . Outer dark reddish-brown. Inner and core black-brown. Ht. 160mm. Wt. 991g.	Early Saxon
206 in burial 204	Base and lower body sherds. From a large jar. c.50% vessel. Surfaces patchy reddish-brown to black. Inner and core dark grey. Fabric 3a . Max. base diam. 130mm. Wt. 679g.	Early Saxon

APPENDIX 4: CREMATED BONE - WEIGHT AND FRAGMENTATION

Context	Sample	Vessel	Feature	Total weight (g)	Largest fragment	Mean fragment size	>10mm	% total	>4mm	% total	>2mm	% total
102	10	101	Burial 100	14.2	21.0	5	0.0	0.0	8.5	59.9	5.7	40.1
104	30	104	Burial 103	57.2	33.9	5	12.9	22.6	29.5	51.6	14.8	25.9
108	29	107	Burial 106	270.2	46.7	25	118.9	44.0	111.9	41.4	39.4	14.6
111	11	110	Burial 109	186.9	56.0	20	79.0	42.3	77.1	41.3	30.8	16.5
114	12	113	Burial 112	6.1	20.1	5	0.0	0.0	2.5	41.0	3.6	59.0
117	13	116	Burial 115	48.1	27.7	5	9.8	20.4	21.1	43.9	17.2	35.8
123	31	122	Burial 121	61.6	28.4	10	22.8	37.0	27.4	44.5	11.4	18.5
125	14	124	Burial 124	120.2	37.3	15	62.3	51.8	43.3	36.0	14.6	12.1
127	27	126	Burial 124	244.2	42.1	30	146.2	59.9	58.6	24.0	39.4	16.1
132	15	131	Burial 130	248.4	34.4	5	61.5	24.8	137.5	55.4	49.4	19.9
134	33	134	Burial 133	98.0	19.2	10	18.1	18.5	54.2	55.3	25.7	26.2
139	24	138	Burial 136	553.1	37.6	35	211.2	38.2	239.2	43.2	102.7	18.6
142	17	141	Burial 140	29.5	27.2	5	7.8	26.4	13.6	46.1	8.1	27.5
148	16	147	Burial 146	25.7	23.1	5	4.6	17.9	17.1	66.5	4.0	15.6
154	18	153	Burial 152	249.5	34.1	10	65.4	26.2	125.7	50.4	58.4	23.4
157	19	156	Burial 155	23.6	19.4	5	3.3	14.0	10.4	44.1	9.9	41.9
160	28	159	Burial 158	5.5	7.9	<5	0.0	0.0	0.9	16.4	4.6	83.6
165	20	164	Burial 163	76.4	37.7	10	41.5	54.3	28.0	36.6	6.9	9.0
168	22	167	Burial 166	27.6	37.3	10	14.4	52.2	7.7	27.9	5.5	19.9
171	21	170	Burial 169	215.0	77.5	40	145.2	67.5	50.0	23.3	19.8	9.2
174	23	173	Burial 172	318.5	37.8	25	123.0	38.6	143.8	45.1	51.7	16.2
203	32	202	Burial 200	247.1	52.9	30	141.7	57.3	78.3	31.7	27.1	11.0
205	26	206	Burial 204	454.4	60.1	25	178.8	39.3	193.3	42.5	82.3	18.1

APPENDIX 5: CONTENTS OF ARCHIVE

Site Name: Plot L, Chelmsford Business Park, Springfield, Chelmsford, Essex

Site Code: SPAL 12

Index to Archive:

1. Introduction

1.1 Written Scheme of Investigation

2. Research Archive

2.1 Client Report

2.2 Finds Reports

2.3 CD-Rom (inc. digital reports, lists, photos, scheme drawings, etc)

3. Site Archive

3.1 Context Record Register

3.2 Context Records (100 to 204)

3.3 Plan Register

3.4 Section Register

3.5 Plan/section sheet

3.6 Environmental Sample Register

3.7 Environmental Sample Sheets

3.8 Photographic Register

3.9 Site Photographic Record (1 set of B/W and colour prints + 1 set of digital images on disk)

3.10 Miscellaneous notes/plans

Not in File

Large plan/section sheets

Finds

The retained finds occupy 3 boxes.

APPENDIX 6: ESSEX HISTORIC ENVIRONMENT RECORD SUMMARY SHEET

Site name/Address: Plot L, Chelmsford Business Park, Springfield, Chelmsford, Essex	
Parishes: Springfield	District: Chelmsford
NGR: TL 73546 08270	Site Code: SPAL 12
Type of Work: Archaeological Excavation	Site Director/Group: T. Ennis, ECC Field Archaeology Unit
Dates of Work: 17/04/2012 to 09/05/2012	Size of Area Investigated:
Location of Finds/Curating Museum: Chelmsford	Funding source: Client
Further Seasons Anticipated?: Yes	Related HER Nos: 5788-92
Final Report: EAH article?	Oasis No: 140184
Periods Represented: Bronze Age, Early Saxon	
<p>SUMMARY OF FIELDWORK RESULTS:</p> <p>Archaeological investigation was undertaken in advance of the development of Plot L, including open area excavation of an additional car park area at its southern limit. Plot L is located immediately northwest of the 1981-91 excavation site at Springfield Lyons and west of the recent Plot K site. It therefore lies in an area of known archaeological potential, just outside of the Late Bronze Age settlement enclosure, within the Early Saxon cemetery and possibly also within (or else just north of) the later Saxon settlement which partially overlies both.</p> <p>Site evaluation undertaken in 2006, and augmented as part of this current work, established that the northern majority of the plot had low or no potential for the presence of significant archaeological remains and was not further investigated. This was further substantiated by monitoring of the construction of an access road for the development. Open area excavation was consequently confined to the area of the additional car park for Plot L, which in fact straddled a substantial trench extended from the Springfield Lyons enclosure excavations in 1991 in an attempt to determine the western extents of the cemetery activity. This earlier work identified the remains of 24 cremation burials.</p> <p>A total of 22 further Early Saxon cremation burials, albeit generally highly truncated and disturbed, were found within the Plot L excavation area. These comprised simple urned interments of burnt human remains within shallow pits, demonstrating similar character and distribution to those previously found in this part of the cemetery. The ceramic vessels, some decorated, provide a late 5th to 6th century date. Only a single burial contained a pyre/cremation burial good - a fragmentary piece of copper alloy binding strip.</p> <p>In addition to Saxon burials, ditches delineating part of an enclosure system of posited Late Bronze Age date along with apparently associated pits, and presumably relating to land-use in the immediate vicinity of the enclosed settlement, were found just beyond the cemetery activity.</p> <p>While no inhumation burials or later settlement remains were present within the area investigated, it may reasonably be predicted that these - as well as further cremation burials - likely continue into that part of the as yet undeveloped business park to the south. Archaeological implication for the forthcoming development of Plot N is clearly demonstrated.</p>	
Previous Summaries/Reports: none	
Author of Summary: T. Ennis	Date of Summary: 14 February 2013

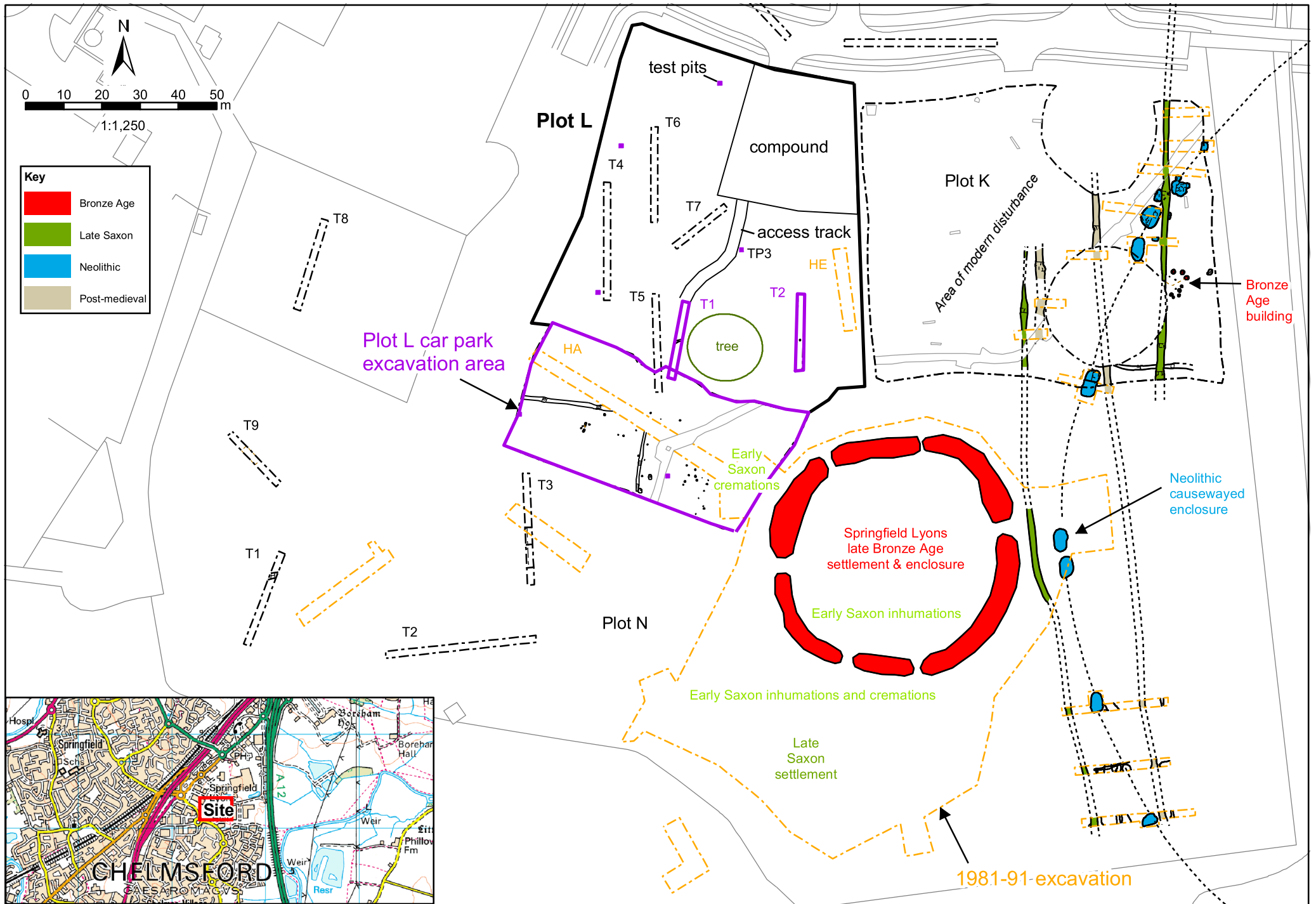


Fig.1. Location of archaeological excavation areas

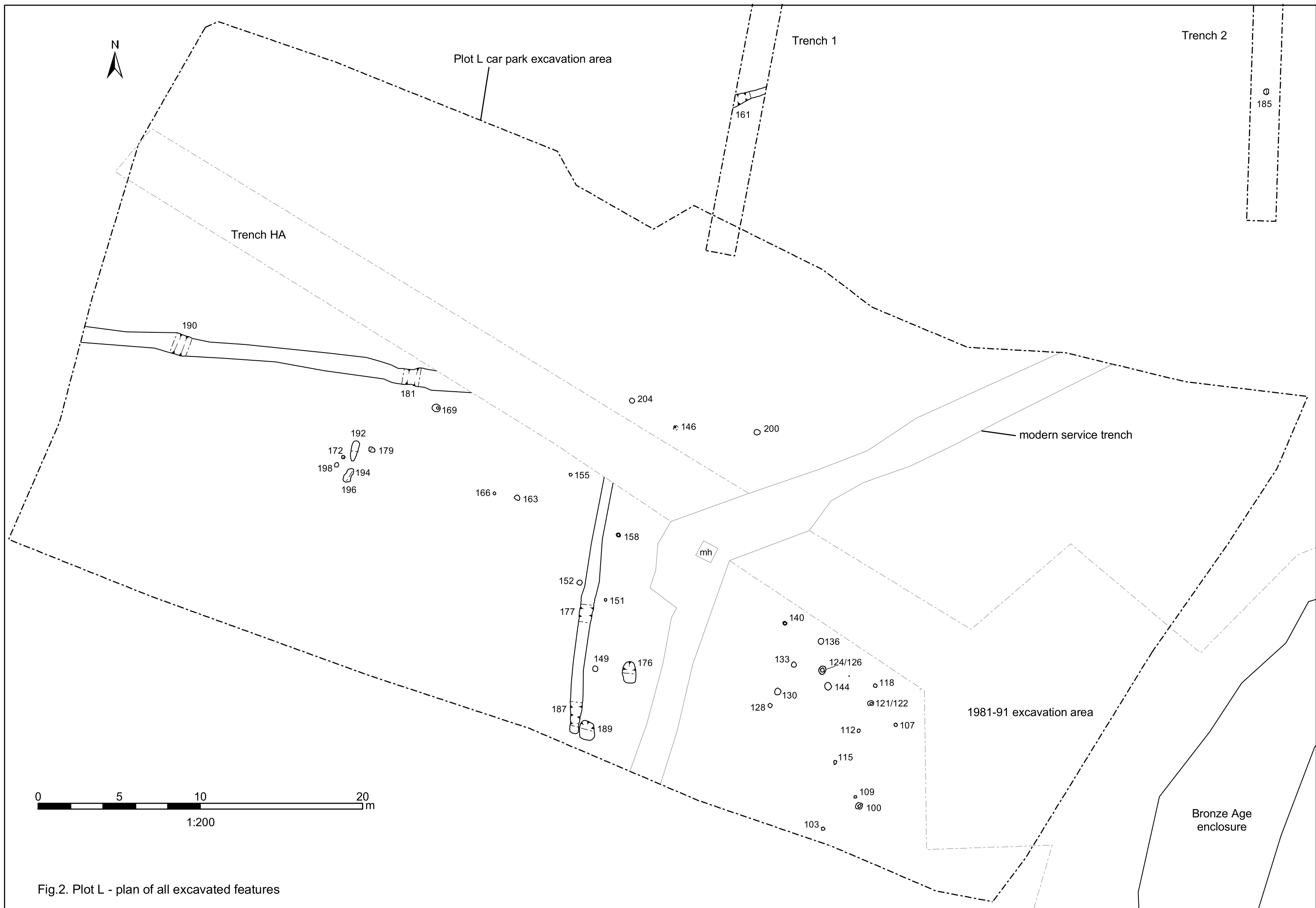


Fig.2. Plot L - plan of all excavated features

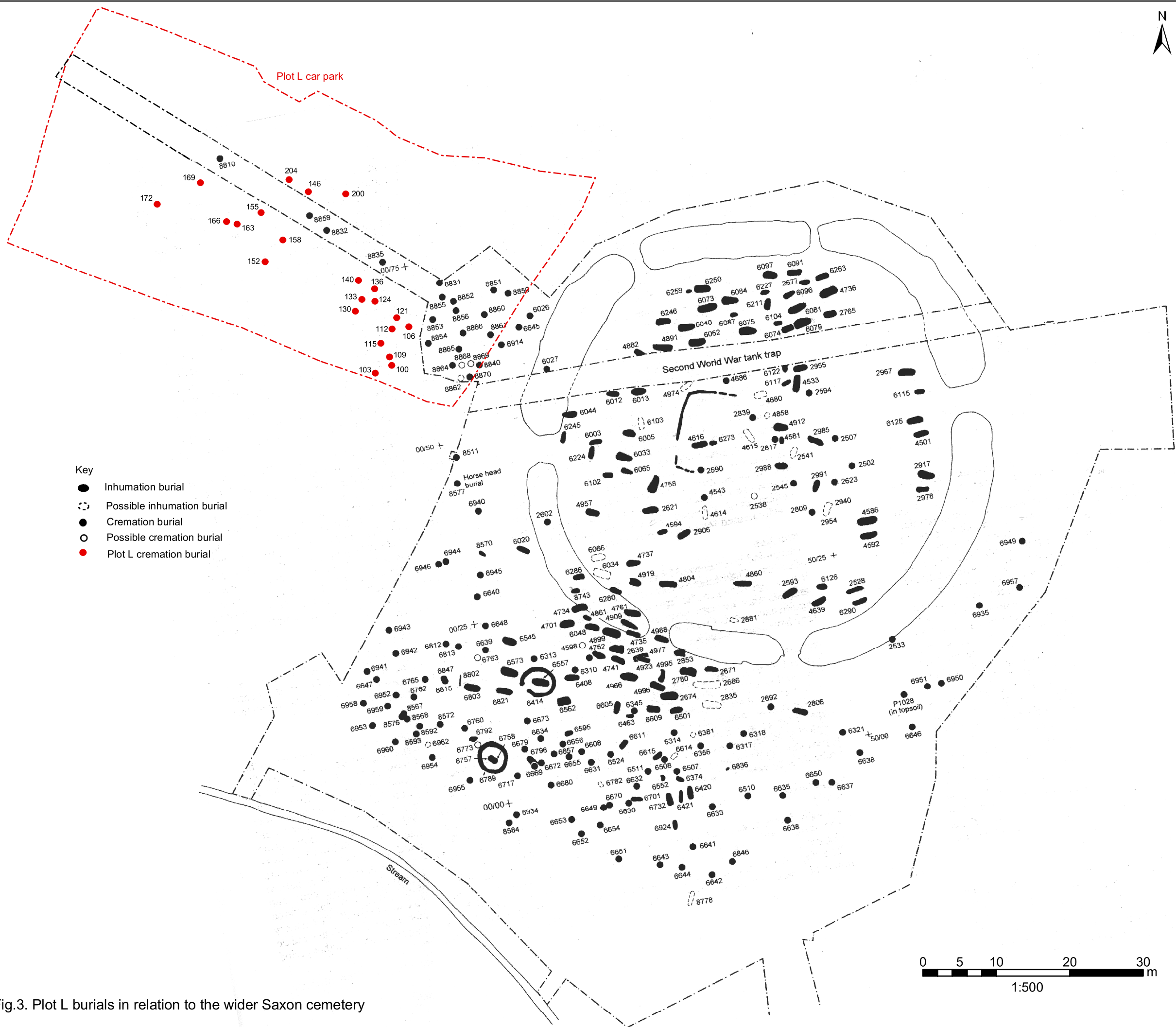


Fig.3. Plot L burials in relation to the wider Saxon cemetery



Plate 1. Trial trench 1, looking north (1m scale)



Plate 2. Gully 161, looking NE (0.5m scale)



Plate 3. Access road strip, looking NE toward Plot K



Plate 4. General site view, looking NW



Plate 5. Cremation burial 103, looking NNE
(0.25m scale)



Plate 6. Cremation burial 136, looking east
(0.25m scale)



Plate 7. Cremation burial 140, looking south
(0.25m scale)



Plate 8. Cremation burial 163, looking north
(0.25m scale)



Plate 9. Cremation burial 124, looking NNE (0.25m scale)



Plate 10. Cremation burial 133, looking east (0.25m scale)



Plate 11. Cremation burial 200, looking north (0.25m scale)



Plate 12. Ditch 181, looking west (1m scale)



Plate 13. Pit 189, looking south (1m scale)



Plate 14. Pits 179, 192, 194, 196 and 198, looking north
(0.5m scale)



Plate 15. Vessel 122 (from grave 121)



Plate 16. Vessel 126 (from grave 124)



Plate 17. Vessel 134 (from grave 133)



Plate 18. Vessel 159 (from grave 158)



Plate 19 Vessel 202 (from grave 200)