EAST ANGLIAN ARCHAEOLOGY

Frontispiece:
Grave goods from burial 61

An Early Saxon Cemetery at Rayleigh, Essex: excavations at the former Park School

by Trevor Ennis

with contributions by
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For details of *East Anglian Archaeology*, see last page

Cover photograph
Bead necklace from burial 61. *Photo: Andy Robertson*

Contents

List of Plates

List of Figures

List of Tables

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Summary

An early Anglo-Saxon cemetery was identified and excavated within the grounds of the former Park School, Rayleigh, Essex, in advance of development. The remains of 145 cremation burials, a further four possible cremation burials, a single possible inhumation burial and sixteen cemetery-related features were excavated over an area of 4325 sq m, most of which had been severely truncated. Although the majority of the cemetery appeared to be within the area of excavation, it is highly likely that further burials lie beyond the southern limit of the development.

Pottery vessels, metalwork and glass beads recovered from the burials indicate that the cemetery was in use from the second half of the 5th century through to the mid 6th century AD, and possibly into the late 6th. Of note was an apparent absence of copper-alloy jewellery. A relative paucity of higher status objects suggests that the interred were part of an agricultural community of typical status. Some of the styles of pottery decoration have parallels in the cemetery at Mucking and in cemeteries in North Kent, indicating cross-Thames movement of goods and craftsmen and perhaps a shared ethnic identity.

A range of pyre goods were recovered in addition to the cremated human bone; all had been burnt at high temperatures. No pyre locations were identified, however. Pyre goods included the remains of food animals, secondary pottery vessels, glass beads and drinking vessels, copper-alloy bucket fittings, iron buckles, knife blades and possible shield rivets. One pit contained a relatively large amount of pyre goods and debris that appeared to have been deliberately buried. The possible inhumation burial contained a complete unburnt glass, amber and jet bead necklace, an iron knife blade and a copper-alloy suspension ring.

The Rayleigh cemetery was situated on the edge of a localised high point overlooking the floodplain of the River Crouch. It may have served a nearby settlement or a number of dispersed rural communities situated on the lower ground to the north and west. Underlying the cemetery was a scatter of prehistoric and Roman features that attest to earlier occupation of the landscape. Early Saxon cemeteries in Essex usually contain inhumation burials or a mix of inhumation and cremation burials. The Rayleigh cemetery is therefore unusual in that it appears to be predominately comprised of cremation burials. However, it is unlikely that the complete cemetery was excavated and it is possible that further inhumation burials exist to the south of the development area.

Résumé

Dans le cadre de fouilles préventives, un cimetière de la première période anglo-saxonne a été identifié et fouillé à l'emplacement de ce qui constituait anciennement Park School à Rayleigh dans l'Essex. On a découvert sur une surface de 4325m^2 les restes de 145 tombes à crémation, auxquelles on peut probablement ajouter quatre autres tombes de ce type et une seule tombe d'inhumation ainsi que seize objets associés au cimetière, la plupart de ces éléments ayant été sérieusement tronqués. Bien qu'il semble que la majorité du cimetière soit située dans la partie fouillée, il est très probable que d'autres tombes se trouvent au-delà de la limite sud de la zone de développement.

Des récipients en poterie, des métaux et des perles de verre tirés des tombes indiquent que le cimetière était utilisé depuis la seconde moitié du cinquième siècle jusqu'au milieu et peut-être la fin du sixième siècle de notre ère. Un nombre relativement restreint d'objets d'un statut social élevé et l'absence complète de bijoux en alliage de cuivre suggèrent que les personnes inhumées appartenaient à une communauté agricole ordinaire qui était toutefois d'un statut social inférieur. Dans certains cas, on peut dresser des parallèles entre les styles de décoration des poteries du cimetière de Mucking et ceux des cimetières du nord du Kent, ce qui indique une circulation des biens et des artisans entre les deux rives de la Tamise et peut-être une identité ethnique partagée.

Un ensemble d'objets provenant d'un bûcher funéraire a été retrouvé en plus d'ossements humains calcinés, l'ensemble ayant été brûlé à de hautes températures. Aucun emplacement de bûcher n'a cependant été identifié. Parmi les objets provenant du bûcher funéraire, on a découvert les restes d'espèces proies, des récipients secondaires en poterie, des perles de verre et des récipients pour la boisson, des finitions de seau en alliage de cuivre, des boucles en fer, des lames de couteau et peut-être des rivets de bouclier. Une fosse contenait un assez grand nombre d'objets de bûcher funéraire ainsi que des débris qui semblent avoir été brûlés volontairement. L'éventuelle tombe d'inhumation contenait de la verrerie qui n'avait pas du tout été brûlée, un collier de perles d'ambre et de jais, une lame de couteau en fer et un anneau de suspension en alliage de cuivre.

Le cimetière Rayleigh est situé en bordure d'un point élevé localisé qui surplombe la plaine inondée de la rivière Crouch. Il a peut-être été utilisé par une implantation voisine ou par un certain nombre de communautés rurales dispersées qui habitaient sur les terres situées en contrebas au nord et à l'ouest. On a également découvert sous le cimetière des objets en ordre dispersé qui datent des périodes préhistorique et romaine, ce qui indique que le paysage était occupé à une époque antérieure. Les cimetières de l'Essex datant de la première période saxonne contiennent habituellement des tombes d'inhumation ou un ensemble de tombes d'inhumation et de tombes à crémation. Le cimetière Rayleigh est par conséquent inhabituel car il est principalement composé de tombes à crémation. Toutefois, il est peu probable que l'ensemble du cimetière ait été fouillé et il est possible que d'autres tombes d'inhumation soient situées au sud de la zone de développement.

(Traduction: Didier Don)

Zusammenfassung

Auf dem Gelände der ehemaligen Park School in Rayleigh, Essex, wurde im Vorfeld eines Bauvorhabens ein frühangelsächsisches Gräberfeld identifiziert und ausgegraben. Auf einer Fläche von 4325 Quadratmetern wurden Reste von 145 Brandgräbern, vier weiteren möglichen Brandgräbern, eines einzelnen möglichen Körpergrabs sowie sechzehn mit dem Gräberfeld in Verbindung stehende Merkmale ausgegraben. Die meisten der Befunde waren stark angeschnitten. Obwohl der Großteil des Gräberfelds innerhalb des Grabungsareals zu liegen schien, besteht eine hohe Wahrscheinlichkeit, dass weitere Grabstätten jenseits der Südgrenze des Baugebiets zu finden sind.

Tongefäße, Metallobjekte und Glasperlen aus den Gräbern deuten darauf hin, dass das Gräberfeld von der zweiten Hälfte des 5. Jh. bis Mitte oder womöglich Ende des 6. Jh. n. Chr. in Gebrauch war. Die relativ wenigen Objekte, die auf einen höheren Status hinweisen, und das komplette Fehlen kupferlegierter Schmuckstücke lassen darauf schließen, dass die Toten zu einer weniger gut situierten, aber ziemlich typischen Agrargemeinschaft gehörten. Einige der Dekorationsstile auf den Tongefäßen weisen Parallelen zu Funden aus dem Gräberfeld von Mucking sowie Gräberfeldern im nördlichen Kent auf — ein Hinweis darauf, dass Waren und Handwerker die Themse überquerten und vielleicht eine gemeinsame ethnische Identität bestand.

Neben den verbrannten menschlichen Knochen wurde eine Vielzahl von dem Scheiterhaufen beigegebenen Objekten geborgen. Alles Material war bei hoher Temperatur verbrannt. Standorte von Scheiterhaufen wurden nicht gefunden. Zu den Verbrennungsbeigaben zählten Überreste von Nutztieren, sekundäre Tongefäße, Glasperlen und Trinkgefässe, kupferlegierte Eimerbeschläge, eiserne Schnallen, Messerklingen und mögliche Schildnägel. Eine Grube enthielt relativ viele Beigaben sowie Abfälle, die, wie es schien, absichtlich begraben wurden. Das mögliche Körpergrab enthielt ein komplett unverbranntes Halsband aus Glas-, Bernstein- und Gagatperlen, eine eiserne Messerklinge und einen kupferlegierten Tragring.

Das Gräberfeld von Rayleigh lag am Rand einer Kuppe über der Schwemmebene des Flusses Crouch. Es wurde wahrscheinlich von einer nahe gelegenen Siedlung oder einer Reihe verstreuter ländlicher Gemeinden auf dem tiefer gelegenen Gelände Richtung Norden und Westen genutzt. Unterhalb des Gräberfelds wurden verschiedene prähistorische und römerzeitliche Spuren gefunden, die eine weiter zurückreichende Besiedlung der Landschaft attestieren. Frühangelsächsische Gräberfelder in Essex enthalten gewöhnlich Körpergräber oder eine Mischung aus Körper- und Brandgräbern. Das Gräberfeld von Rayleigh ist somit eher ungewöhnlich, da es vornehmlich aus Brandgräbern zu bestehen scheint. Es ist allerdings unwahrscheinlich, dass das komplette Gräberfeld ausgegraben wurde, da südlich des Baugebiets womöglich weitere Körpergräber existieren.
(Übersetzung: Gerlinde Krug)

Chapter 1. Introduction

I. Project background

In Spring 2004, the excavation of an early Anglo-Saxon cemetery took place in the grounds of the former Park School in Rawreth Lane, Rayleigh, Essex (Fig. 1). The excavation was undertaken by Essex County Council Field Archaeology Unit and funded by the developer, George Wimpey East London Ltd, in response to a full recommendation for archaeological excavation made by the ECC Historic Environment Management Team.

The cemetery had been discovered in 2003 during a twenty-four-trench (1375 sq m) (Fig. 2) evaluation of the site undertaken by ECC Field Archaeology Unit (Roy 2003). This evaluation identified a single undated boundary ditch (Fig. 2: 22) in the centre of the development area and a number of early Saxon cremation burials in three trenches in the south-east. One pit containing a complete and unburnt necklace, a copper-alloy ring and an iron knife blade was recognised as a possible early Saxon inhumation burial. These three trenches became the focus of the subsequent area excavation.

After the main cemetery excavation was completed, a second phase of evaluation, consisting of a further twelve trial trenches (744 sq m), was undertaken in September 2004 (Ennis 2004). The trenches were located in the south-west corner of the playing fields, in an area not previously subject to archaeological investigation. Two cremation burials (Fig. 2: 650 and 652) were encountered and interpreted as sporadic outliers to the main concentration of Saxon burials. The eastern half of this area would be preserved as public open space within the development and so it was not subject to further archaeological investigation. The results from both phases of evaluation are subsumed in this excavation report. The site archive has been deposited in Southend Museum (accession number SOUMS: A2006.8).

II. Location, topography and geology

(Figs 1–2)

Rayleigh is situated in south Essex, on a range of low hills approximately halfway between the rivers Thames and Crouch. The Park School was located on the north-western outskirts of Rayleigh, on the south side of Rawreth Lane. The development area consisted of grassed playing fields approximately 5ha in extent, with occasional trees and shrubs, to the immediate south of the school buildings. The development area was bounded by

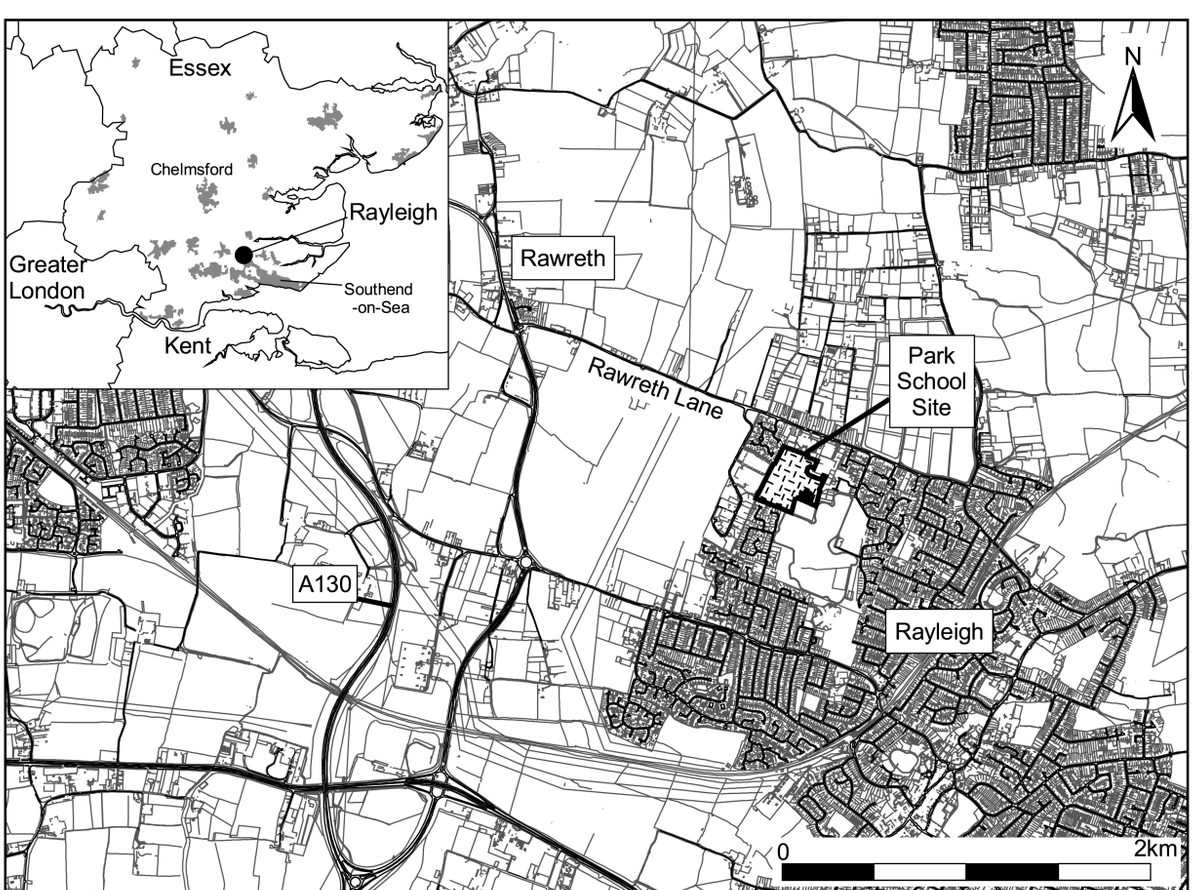

Figure 1 Location map

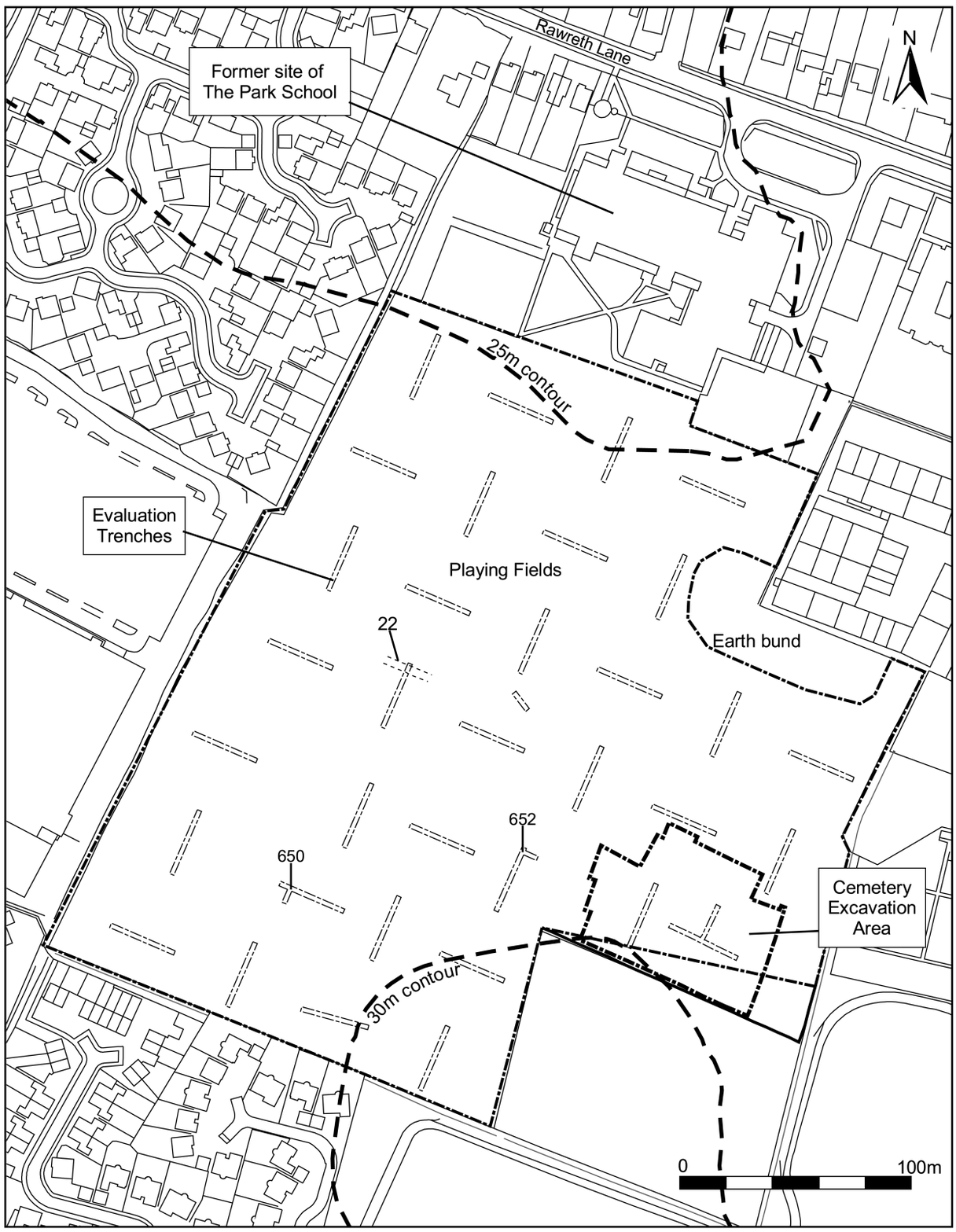

Figure 2 Excavation area

Rawreth Lane to the north. On the remaining three sides it was separated from open ground and house back-gardens by varying combinations of hedges and fences. A number of small factory units were located to the immediate north-east of the development area. These were partly obscured from view by an extensive grass-covered bund running around the north-east corner of the playing fields. The bund provided clear evidence of past earthmoving and levelling activity which may have contributed to the truncation of surviving archaeological deposits.

In general, the development area sloped gently from south to north (approximately 30m to 25m OD), although the school building itself sat in a slight dip and the ground here had clearly also been subject to levelling and

truncation during construction. The school was not subject to archaeological investigation and was being demolished during the course of the cemetery excavation. Beyond the south-eastern boundary of the development area the ground noticeably dropped away before rising up to the medieval core of Rayleigh, which could be seen across the valley, on a hill 1.5km to the south-east.

The Saxon cemetery site was located on an open grassland area in the south-east corner of the playing fields (TQ 799 923) at an Ordnance Datum of between 29m and 30m. Current Ordnance Survey mapping shows the southern edge of the cemetery and an additional 400m to the south of the development area to be situated upon a localised high point of more than 30m.

The drift geology of the site consists of Quaternary Head deposits of clay, silt, sand and gravel (BGS Lexicon; www.bgs.ac.uk/lexicon/lexicon_intro.html). In the excavation area the subsoil consisted of generally well-drained light reddish-brown silty clay with occasional small to medium flint inclusions interspersed with patches of brown gravel. This was sealed by a relatively thin depth of dark grey-brown clay silt topsoil, generally only between 0.25m and 0.30m deep.

III. Archaeological and historical background

Although located beyond the boundaries of Saxon and medieval Rayleigh, the site was deemed to be in an area of perceived archaeological potential (Connell 2002, 2). Roman pottery find spots occur approximately 1km to the north (Essex Historic Environment Record 7519, 13363, 13535), and a hoard of Roman *denarii* was found in 1849 approximately 0.85km to the south-west (EHER 13614). More pertinently, a few sherds of Saxon pottery were recovered approximately 2.5km to the west, during Drury's excavations at Rawreth (EHER 9045). A gilt bronze saucer brooch was also found in the same area (EHER 13829). To the north-east, a number of Saxon finds were collected at Hullbridge (EHER 13818), including a coin, a stud and a brooch. Saxon settlement evidence has been identified in recent years at a number of locations along the route of the new A130 (Dale *et al.* 2005) some 2.5km west of the site. Prittlewell, the nearest known Saxon cemetery, is located in Southend-on-Sea, 8km to the south-east. Medieval sites in the vicinity of the Park School include moated sites at Tryndehayes (EHER 7520) and Rawreth Hall (EHER 7524).

Rayleigh is mentioned in the Domesday Book (Rumble 1983) and is believed to be the site of a late Saxon settlement. The place-name is of old English derivation from *ræge leah* meaning 'wild she-goat (or female roe-deer) clearing' (Reaney 1935). Within the first two decades following the Norman invasion a castle was built here by Swein of Essex. Rayleigh may have been the site of a hundredal market, as there are documentary references to a market and fair in 1227 (Eddy and Petchey 1983). The castle was abandoned in the 14th century and the settlement developed as a small market town until expansion occurred in the early 20th century with the coming of the railway (Medlycott 1998). Ordnance Survey map evidence shows that expansion along Rawreth Lane occurred mainly in the second half of the 20th century, with Park School itself being constructed upon farmland in the 1960s.

Chapter 2. Excavation

I. Method

The initial evaluation identified cremation burials in three trenches in the south-east corner of the former playing fields. These trenches formed the focus of the subsequent area excavation; this was opened up around them and covered an area of 4325 sq m. The southern extent of the excavation area was restricted by the presence of the fence and hedge defining the southern boundary of the development area. The north, east and west extents of the investigation were established by stripping topsoil outwards from the perceived centre of cemetery activity until a cremation-free zone of *c.*5m was achieved. To the north, the presence of two burial-free evaluation trenches confirmed that the likely limit of the cemetery area had been reached.

Under archaeological supervision, the topsoil was stripped from across the excavation area using a tracked 360º excavator fitted with a toothless ditching bucket. Cremation burials and other archaeological features were immediately visible at the base of the topsoil, at the interface with the underlying deposits of natural silty clay and gravel. All identified archaeological features were hand-cleaned and excavated. Cremation burials were totally excavated, while associated cemetery features were generally half-sectioned.

The surface of the machine-excavated area was swept by metal detector, as was spoil from the subsequent hand excavation. No objects of significance were recovered. Metallic objects within cremation burials and other features were retrieved as part of the bulk soil sampling and/or excavation process. The topsoil had been stockpiled into one large mound and consequently was subject only to minimal detection. The site was seeded with brass washers after the initial metal detector sweep, to deter illicit metal detecting.

After the central part of the excavation had been cleared of cremation burials an additional 0.10m was removed by machine to check for the presence of any inhumation burials not apparent during the original strip. The resultant surface was also swept by metal detector.

All excavated cremation burials were 100% bulk soil sampled. All urn fills and other potential cremation residues were collected for flotation wet-sieving to maximise retrieval of cremation remains and macrofossil evidence. The burial urns were generally fragmented, and cremated material was often collected from beyond the confines of the vessel. A total of 161 soil samples was taken and processed, including a number from non-burial features.

The soil samples were processed by bulk wet-sieving with flotation, using a 0.5mm mesh and a 0.5mm sieve for flotation fraction (flot) collection. The residue was then dried and separated into coarse and fine fractions using 4mm and 2mm sieves. All of the material in the coarse fraction was sorted by eye and cremated bone, artefacts and ecofacts were extracted. The cremated bone was weighed and bagged for specialist attention. Artefacts (small pieces of pottery, burnt bone/antler, melted metalwork and glass) were separated into type and recorded. All stones were discarded; burnt flints were recorded prior to disposal. The fine fraction was collected, weighed and bagged unsorted. Any charcoal present in the dried residue was noted and added to the fine fraction. Carbonised seeds and charcoal recovered from the dried flots were retained separately.

Seventeen residues containing above minimal amounts of charcoal were subject to secondary flotation using a 0.5mm mesh for further recovery of ecofacts on the advice of the environmental specialist. All flots and extracted ecofacts/plant macrofossils were subjected to environmental analysis.

II. Evidence for truncation and disturbance

It was apparent at the initial archaeological evaluation stage, and reaffirmed by the area excavation, that the site had been heavily truncated, most probably during construction of the school playing fields in the 1960s. It is probable that the original topsoil was removed and the subsoil reduced by machine before topsoil was relaid. The lack of archaeological material in the current topsoil suggests that this may have come from elsewhere on the former school site, and it is likely that the large grass-covered bund along the north-east edge of the site represents excess soil that was removed and stockpiled during this levelling operation (Fig. 2).

Most cremation vessels within the cemetery were buried in shallow pits and had generally been truncated by approximately two-thirds. In a few instances, truncation was so severe that only small scatters of broken pottery and cremated bone survived in slight depressions. Only thirteen graves (Table 1) contained 75% or more of their cremation vessels and in most cases this enhanced survival was due to the slightly greater depth of the burial pit (*e.g.* graves 504, 536 and 560), combined, in some instances, with an element of pre-truncation compaction (*e.g.* graves 8 and 441).

Further truncation and disturbance of burials had been caused by two sets of land drain alignments that crossed the site on a rough north–south orientation. Of these, the most visible was a series of twenty-two gravel-filled land drains *c.*0.20m wide that varied in orientation from north-east/south-west to north-west/south-east and were spaced roughly 7m apart. The second set of land drains was not readily visible on the surface of the natural clay and gravel and appeared to have been cut as sub-surface mole drains and filled with cockle shells. These drains were orientated roughly north–south and were narrower (at about 0.10m wide), but were more numerous as they appeared to be spaced only 1m apart. The location of these land drains has been shown on Fig. 3 only where they truncate archaeological features.

The eastern side of the cemetery was disturbed by several sand-filled pits and run-up tracks associated with athletics activities. Several shallow north–south wheel

A3 foldout

Figure 3 All features

A3 foldout

Table 1

Context no.	Feature type	Pottery				Grave goods	Bone*			Pyre goods*	Pyre debris	Date
		Urn	Decorated	Urn survival	Other pot		Human	Age/ gender	Animal			
370	Grave	Y		75%			Y				Y	
373	Grave	Y		ba			Y	?a		rivet/bone plate, ?chatelaine rod	Y	
375	Grave	Y		25%			Y				Y	
378	Grave	Y		ba, lb			Y	?a			Y	
382	Grave	Y		40%		accessory vessel	Y	a/?m		nails	Y	
384	Grave	Y		?			?Y					
387	Grave	Y		50%			Y	?a		disc-headed rivet	Y	late 5th–mid 6th
388	Grave	Y		b			Y					
390	Grave	Y		60%			Y	a		buckle pin	Y	
399	Grave	Y		30%			Y	a			Y	
405	Grave	Y		25%			Y	?a		disc-headed rivet	Y	late 5th–mid 6th
406	Grave	Y		b			Y					
408	Grave	Y		15%			Y	?a				
409	Grave	Y		25%		accessory vessel	Y			bead	Y	late 5th–mid 6th
410	Grave	Y		60%			Y	?a		?bead	Y	
413	Grave	Y		f			Y	?a			Y	
415	Grave	Y		75%			Y	?ne	?Y	rivet, bead	Y	late 5th–early 6th
420	Grave	Y		ba, b			Y					
423	Grave	Y		25%			Y	a	Y		Y	
425	Grave	Y		25%			Y	ne			Y	
426	Grave	Y x2	Y x2	25%; r, b		accessory vessel	Y			bead	Y	?e–mid 6th
428	Grave	Y		b			Y				Y	
430	Grave	Y		30%			Y				Y	late 5th–mid 6th
433	Grave	Y		25%			Y	?a				
435	Grave	Y		50%			Y	a			Y	
438	Grave	Y	Y	50%			Y			buckle	Y	?mid 6th
441	Grave	Y	Y	75%		accessory vessel (decorated)	Y		Ynb		Y	mid 6th
445	Grave	Y		75%			Y	a			Y	
450	Grave	Y		b			Y					
452	Grave	Y		60%			Y	a		disc-headed rivet, beads/vessel?	Y	late 5th–mid 6th
457	Grave	Y		b			Y					
461	Grave	Y	Y	50%			Y	a			Y	m–6th
462	Grave	Y		ba, lb			Y				Y	?late 5th–mid 6th
467	Grave	Y		50%			Y	a		vessel glass	Y	
469	Grave						Y					
471	Grave	Y		lb			Y	a		toilet set or knives, chatelaine	Y	?6th
473	Grave	Y		ba			Y					

Context no.	*Feature type*	*Pottery*				*Grave goods*	*Bone**			*Pyre goods**	*Pyre debris*	*Date*
		Urn	*Decorated*	*Urn survival*	*Other pot*		*Human*	*Age/ gender*	*Animal*			
475	Grave	Y		25%			Y	?a			Y	
478	Grave						?Y			beads		
480	Grave	Y		15%			Y	in/ne			Y	
485	Grave	Y		80%		accessory vessel (decorated)	Y	a/?m				
486	Grave	Y		25%			Y					
489	Grave	Y		50%			Y	a		bead		late 5th–early 6th
501	Grave	Y		b			Y	?a		beads		
504	Grave	Y		75%			Y	?a			Y	
507	Grave	Y		b			Y				Y	
511	Grave	Y		25%			Y				Y	
512	Grave	Y		b			Y				Y	
514	Grave	Y	Y	25%			Y				Y	
519	Grave	Y		40%			Y			beads	Y	
520	Pit									?vessel/beads	Y	
530	Grave	Y	Y	75%			Y	a		chatelaine or pin, hazel nut	Y	?mid 6th
533	Grave	Y	Y	50%			Y	?a				?mid 6th
536	Grave	Y	Y	90%			Y	?j			Y	?mid 6th
540	Grave	Y		ba, lb			Y			beads		
546	Grave	Y		b			Y	?j				
556	Grave	Y		b			Y					
558	Grave	Y		25%			Y					
560	Grave	Y	Y	75%			Y					? m–late 6th
578	Grave	Y		b			Y	?in			Y	
580	Grave	Y		b			Y					
585	Grave	Y	Y	50%			Y	?in			Y	late 5th–mid 6th
593	Grave	Y		ba, b			Y	?in		knife		
650	Grave	Y		f			Y				Y	
652	Grave	Y		ba, lb			Y		Y	rivet	Y	

Y = present
* = burnt unless stated
Pottery: b = body; ba = base; f = fragments; lb = lower body; r = rim; ub = upper body
Bone: a = adult; in = infant; j = juvenile; m = male; ne = neonate; nb = not burnt

Table 1 Finds from cemetery features

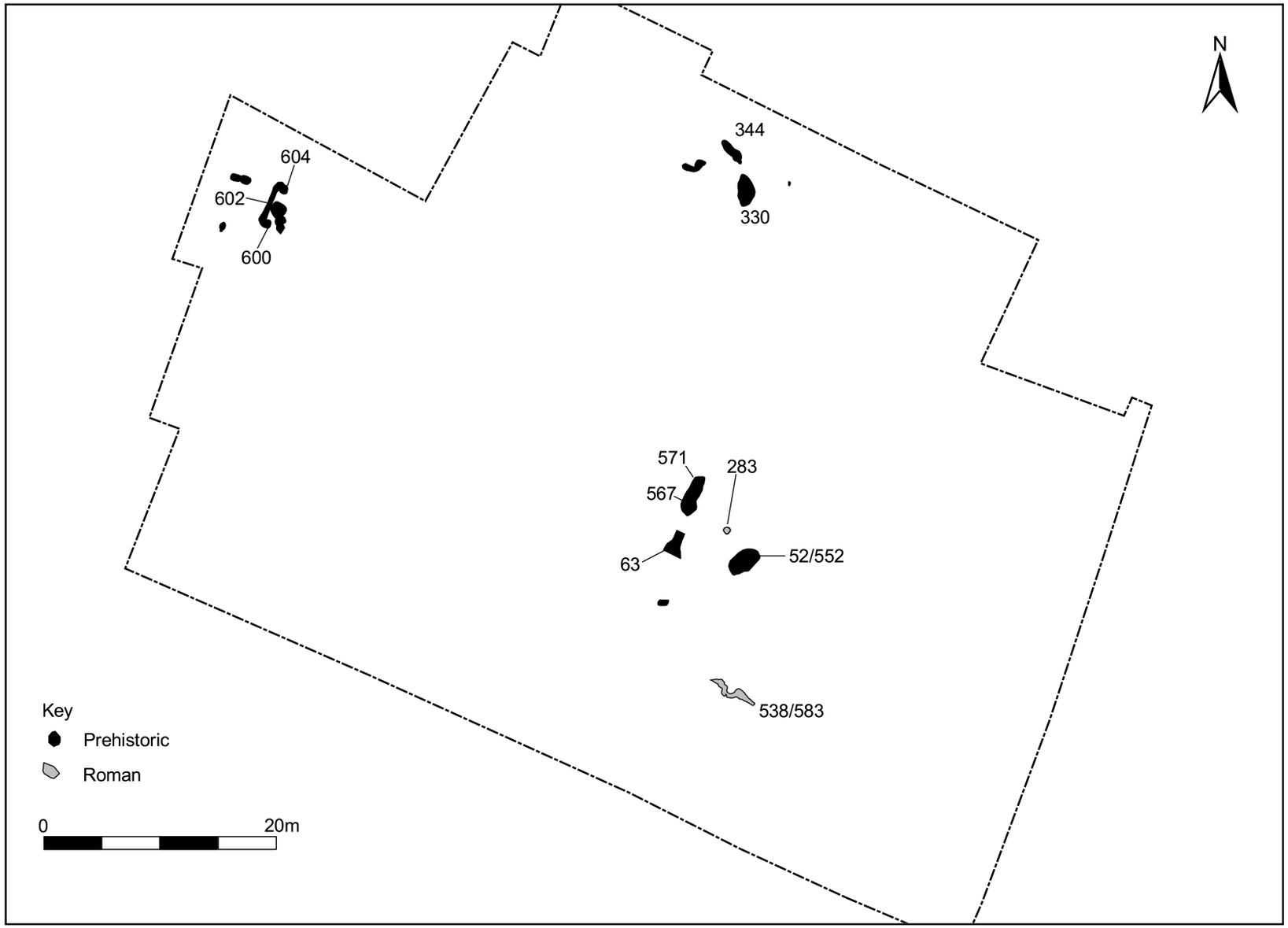

Figure 4 Prehistoric and Roman features

ruts in the western half of the site were probably attributable to the groundworks for the sports field, as was the apparent compaction of the subsoil along the western side of the site adjacent to the athletics features. A number of north–south plough-marks were presumably the product of arable cultivation prior to the construction of the school.

III. Results

Introduction

The open-area excavation confirmed the presence of the early Saxon cemetery in the south-east corner of the development area and revealed a number of other features ranging in date from the middle Iron Age to the medieval period. Although the Saxon features were widely spread across the excavation area they were most concentrated in the central region around the position of the original evaluation trenches. The middle Iron Age features were clustered in groups in the centre, north and west of the site and the Roman and medieval features in the centre and west of the site. In addition to the cremation burials and the one possible inhumation the range of features investigated included ditches, pits, post-holes and a possible beam slot. All excavated features are shown in Figure 3.

The cremation burial pits generally contained the remains of pottery urns that were filled with burnt bone and small amounts of charcoal, ash and grey silt. The majority of other features were filled with brown clay or clay silt. The definition of most features was satisfactory, but identification was hindered by numerous colour changes within the underlying natural clay. Overall survival of archaeological features and deposits was poor, as demonstrated by an average surviving cremation depth of 0.10m and an average non-cemetery feature depth of 0.15m. The reasons for this are discussed below.

The following description of the excavated remains has a chronological approach and has been divided into three periods. The first covers the pre-cemetery middle Iron Age and Roman remains, the second covers the Saxon cemetery and related features, and the third the medieval and modern post-cemetery remains. As the Saxon cemetery features were the most significant and numerous aspect of the site they were prioritised during the fieldwork and subsequently are the main concern of this report.

Pre-cemetery activity

(Fig. 4)

A small number of middle Iron Age features were identified. One particular concentration was located in the west of the excavation area; this included a shallow slot (602) with a post-hole at either end (600 and 604) that may have been the remains of a short wattle fence, perhaps used as a wind-break. A number of large irregular pits were investigated in the north (330 and 344) and centre (63, 567, 571 and 52/552) of the excavation area. The majority of the prehistoric features contained small quantities of pottery and burnt flint and, occasionally, baked clay. Two Roman features, a post-hole (283) and a poorly defined and sinuous gully (538/583), both containing 3rd-century or later pottery, were excavated. Residual prehistoric and Roman material was also recovered from a number of Saxon cemetery features.

This limited, scattered middle Iron Age and Roman activity shows little patterning, making meaningful interpretation of the function and significance of this earlier activity difficult.

Early Saxon cemetery

(Figs 3 and 5)

Despite the high levels of truncation and disturbance, the remains of a total of 145 cremation burials, four possible cremation burials, one possible inhumation burial and a further sixteen other early Saxon features were excavated. Pottery, metalwork and glass beads recovered from the burials indicate that the cemetery was in use from the mid 5th century through to the middle or the latter half of the 6th century AD. While the Saxon period features and their constituent parts are described below, a detailed inventory of each grave and cemetery-related feature is presented in gazetteer format in Chapter 3. In addition, their pertinent attributes are summarised in Table 1, for ease of reference.

Burials

The cremation burials generally, though not exclusively, consisted of a single ceramic vessel (the urn) containing burnt human bone interred in a close-fitting pit (Plates 1–3). Approximately half of the excavated cremation urns were decorated, some with elaborate schemes featuring bosses, stamps and incised lines. In some instances there was a discernable backfill surrounding the urn, but often the backfill and the urn contents had become mixed due to truncation, modern disturbance and root action. Particular attention was paid to establishing the size and shape of the burial pits: in most cases they were sub-circular and appeared to extend little beyond the cremation urn. A few larger burial pits, such as 99, 229, 258 and 378, were found; these varied in diameter from 0.42m to 0.72m and in depth from 0.14m to 0.25m. It is likely that many of the other burial pits were originally larger, but that their full shape had been lost due to the severity of the truncation.

Most burials contained a single cremation vessel (Plates 4 and 5). However, nine pits (190, 238, 258, 305, 352, 382, 409, 441 and 485) contained two vessels, and one pit (426) three vessels. In the case of pit 258, two cinerary urns were present, implying either a double burial or that the remains of one individual had been deposited in two containers. In the other instances (190, 238, etc.) the additional vessel may represent the remains of a food container placed on the cremation pyre and burnt along with the body. However, as only the pottery sherds from pit 352 showed signs of burning, it is possible that some of these additional food vessels were deposited directly into the burial pit as grave goods. The three vessels in burial 426 probably represent two cremation urns and one food vessel. One burial (560) contained 75% of a globular pot (Plate 6) but only a trace of cremated skull in its fill. This burial was located several metres from other features and has similarities with possible 'token burials' or 'memorials' found on Iron Age cremation sites (McKinley 1997, 57 and 71–2).

Eight cremation burials (144, 194, 219, 224, 266, 307, 366 and 469) contained no discernable vessel. Of these, burials 194 and 366 can fairly confidently be identified as un-urned burials as they each contained over 100g of cremated human bone and glass items. Burial 224 contained over 50g of human bone and an iron buckle fragment, and may possibly also fall into this category. Of

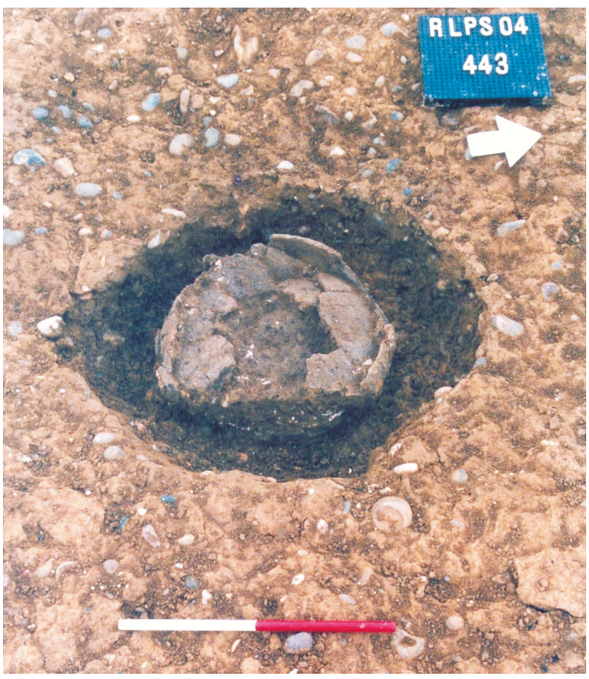

Plate 1 Cremation burial 441

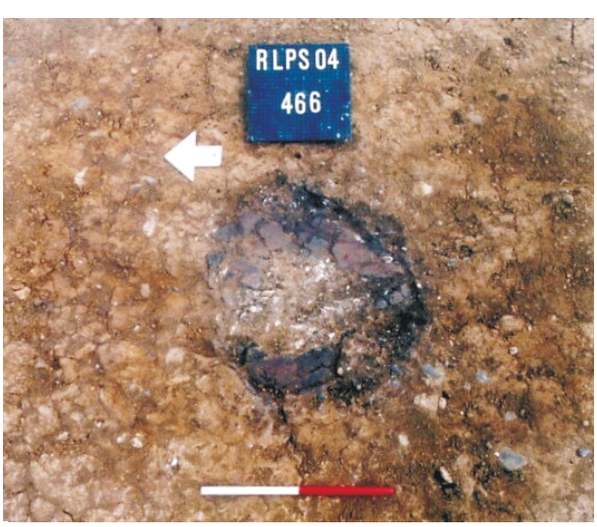

Plate 2 Cremation burial 467

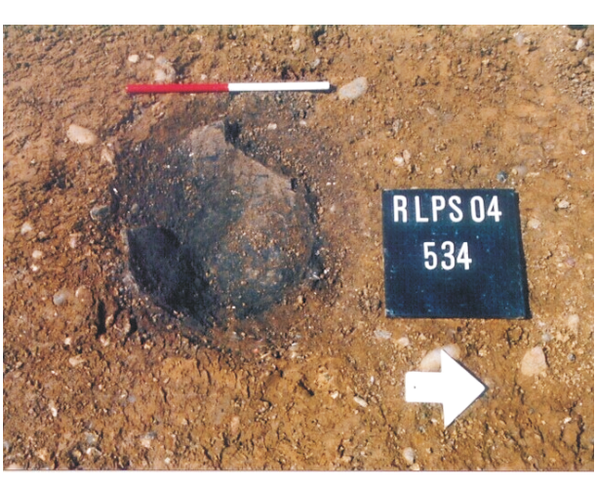

Plate 3 Cremation burial 533

Plate 4 Urn 490, burial 489

Plate 5 Urn 537, burial 536

Plate 6 Urn 561, burial 560

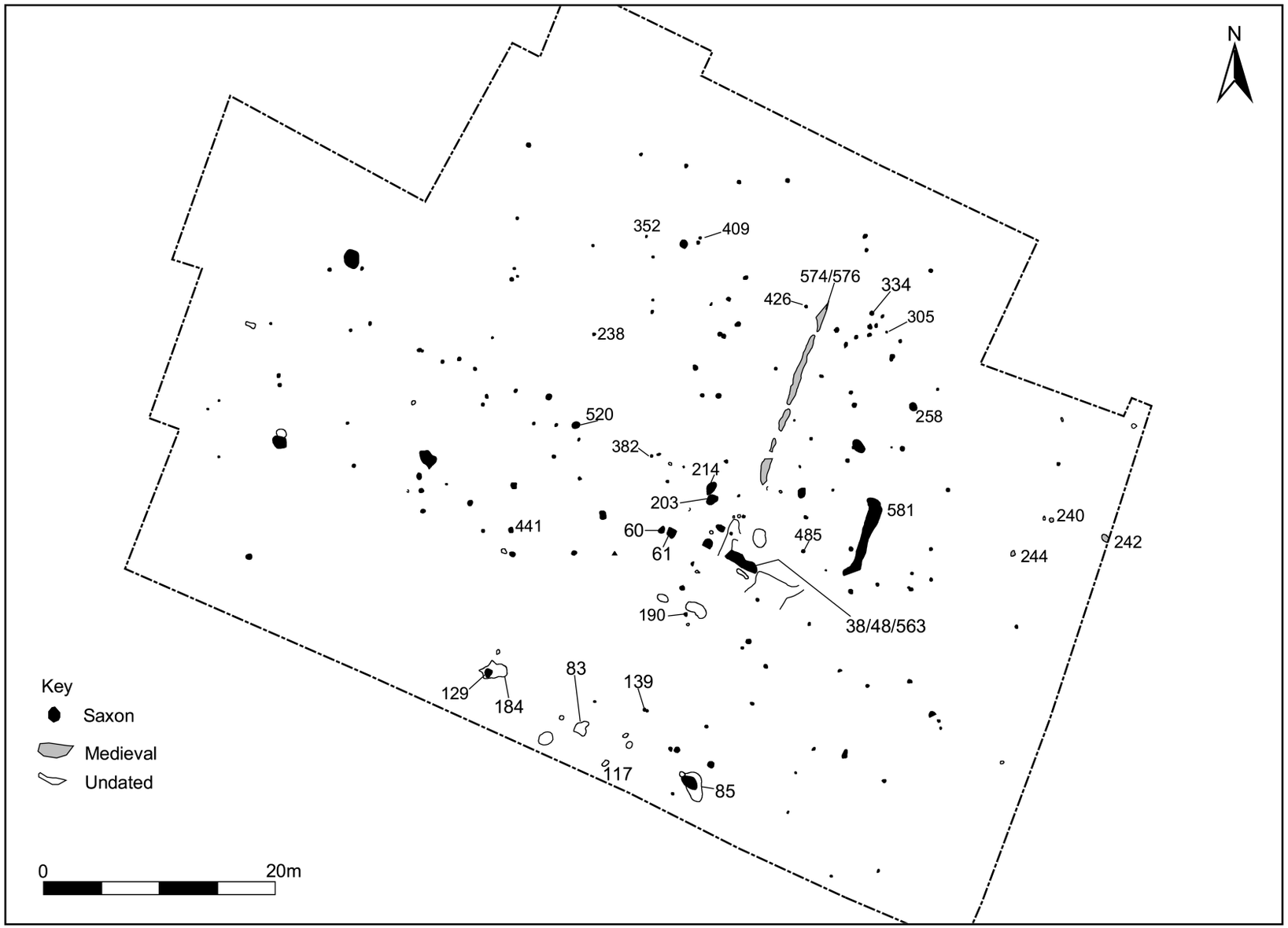

Figure 5 Saxon, medieval and indated features

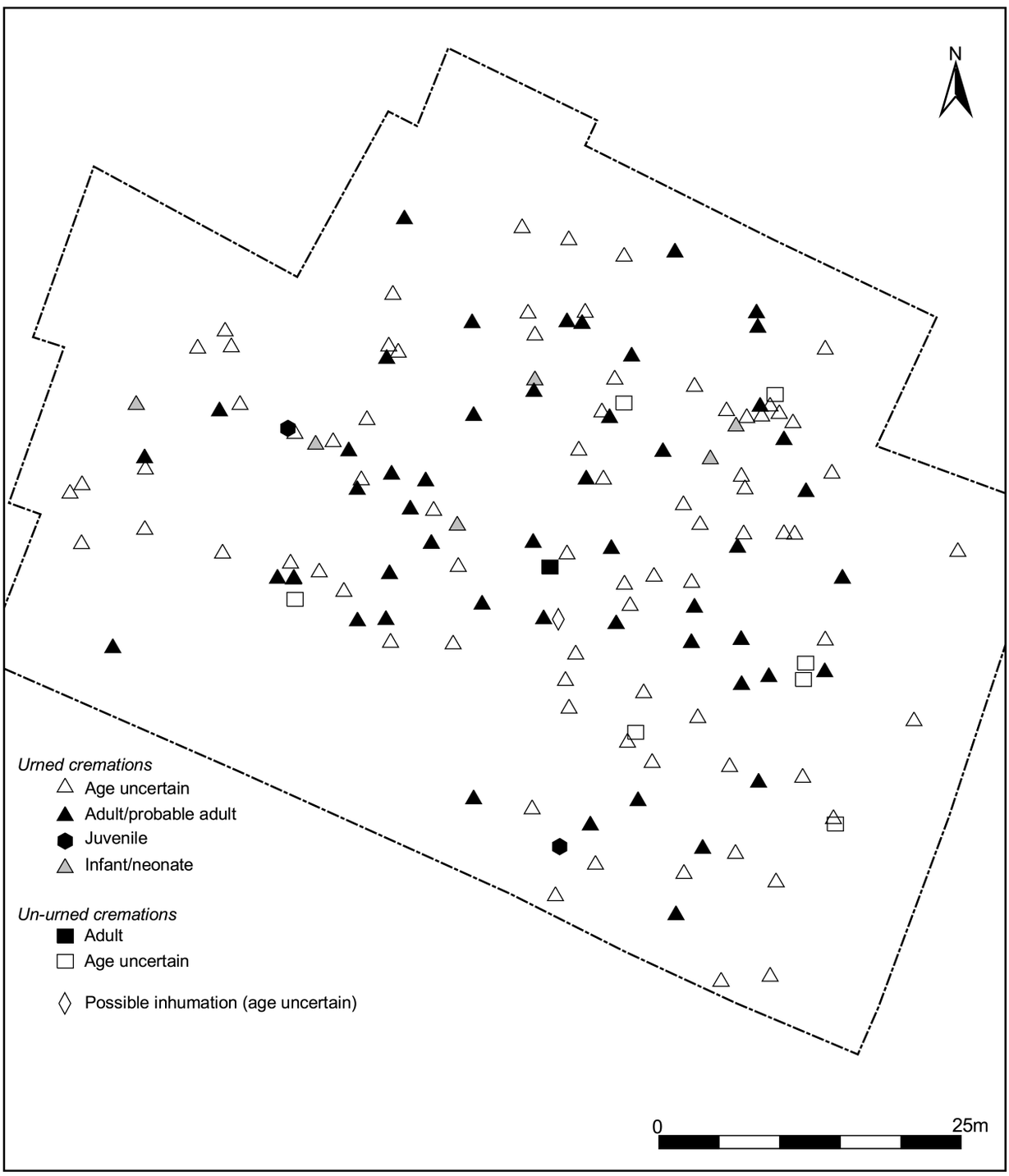

Figure 6 Cremation burial distribution by age

the five remaining vessel-less burials, four (219, 266, 307 and 469) contained only small amounts of cremated human bone. The fifth (144) contained an unburnt glass bead and is included because the majority of glass beads, with the exception of those from pits 203 and 520, were all recovered from burial contexts. All five burials were highly truncated, or, in the case of 307, disturbed, and it remains unclear whether they were originally buried with, or without, a vessel.

Two cremation burials (650 and 652) were excavated during the second evaluation exercise (Fig. 2). They were located in separate trenches, one approximately 30m and the other approximately 120m from the nearest part of the excavation area. As no other cemetery features were identified in these areas these burials are regarded as sporadic outliers. Their presence does suggest that there may be a few other sporadic cremation burials located elsewhere between the evaluation trenches.

A total of nearly 26kg of very fragmented cremated human bone was recovered from the graves. At least 118 individuals were identified, about half of which were complete enough to estimate age at death; of these over 86% were probably adult, 3.3% were juvenile and 10.1% were infants or neonates (Fig. 6). The percentage of

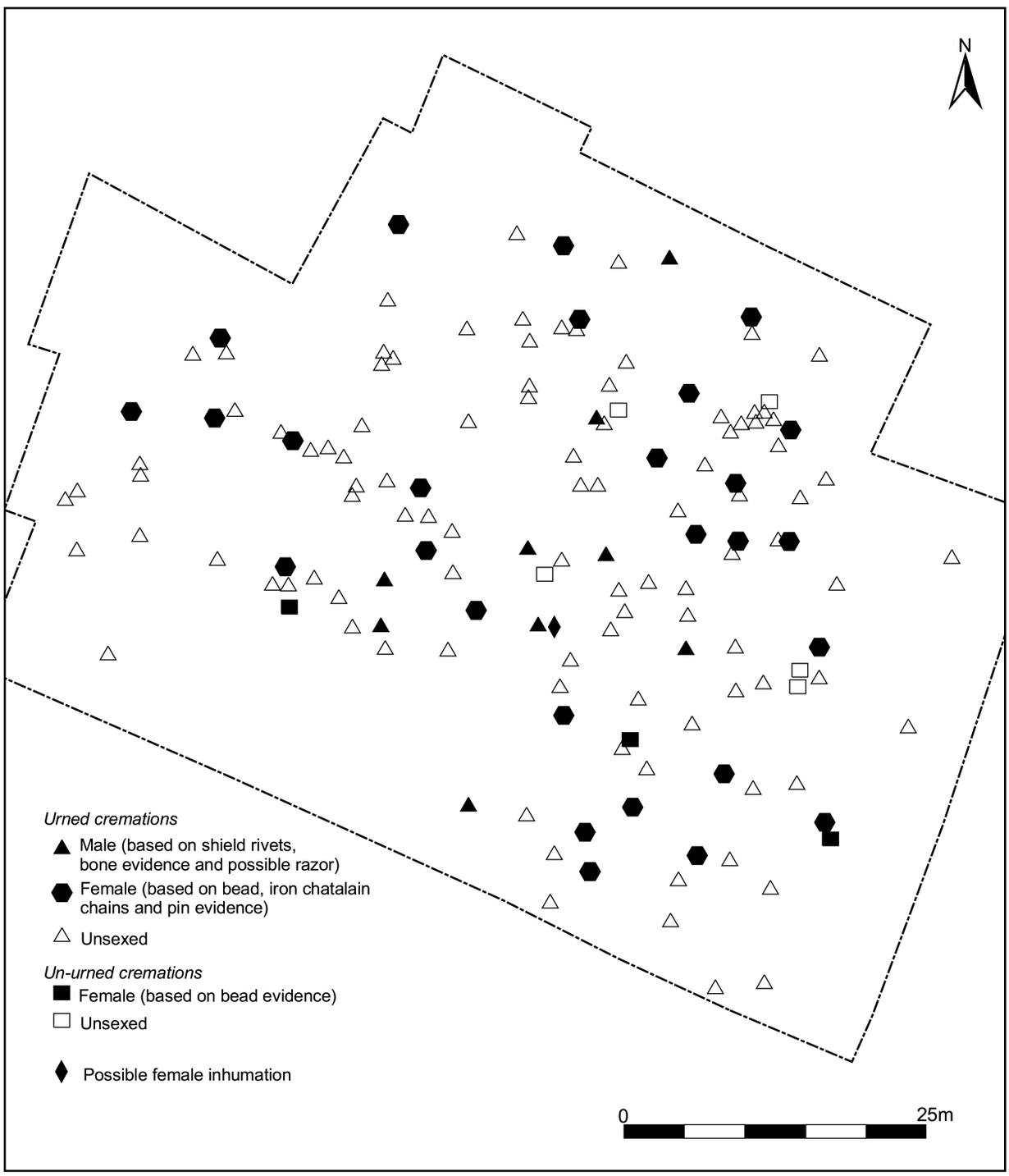

Figure 7 Cremation burial distribution by gender

infants or neonates is very similar to the results from Spong Hill, where roughly 10% were aged from foetus/neonate to older infant (McKinley 1994a, 68). At Spong Hill it has been estimated that up to 100 burials of infants under 1 year old may have been lost, probably due to hostile factors such as adverse soil conditions, disturbance and difficulties in collecting fragile infant remains from the pyre (McKinley 1994a, 66). Given that the same hostile factors apply at Rayleigh, it can be assumed that a number of infant/neonate burials have also been lost here.

Only six individuals could be sexed from the cremated human bone and these were all identified as probably male. Animal bone was present in ten cremation burials; all of it showed signs of burning apart from one unburnt pig bone from burial 441.

In addition to cremated bone, the cremation urns contained burnt and unburnt glass beads and fragmentary burnt copper alloy and iron metalwork. This material represents objects burnt on the funeral pyre and subsequently collected for deposition with the cremated bone. Parts of burnt glass bead necklaces were recovered

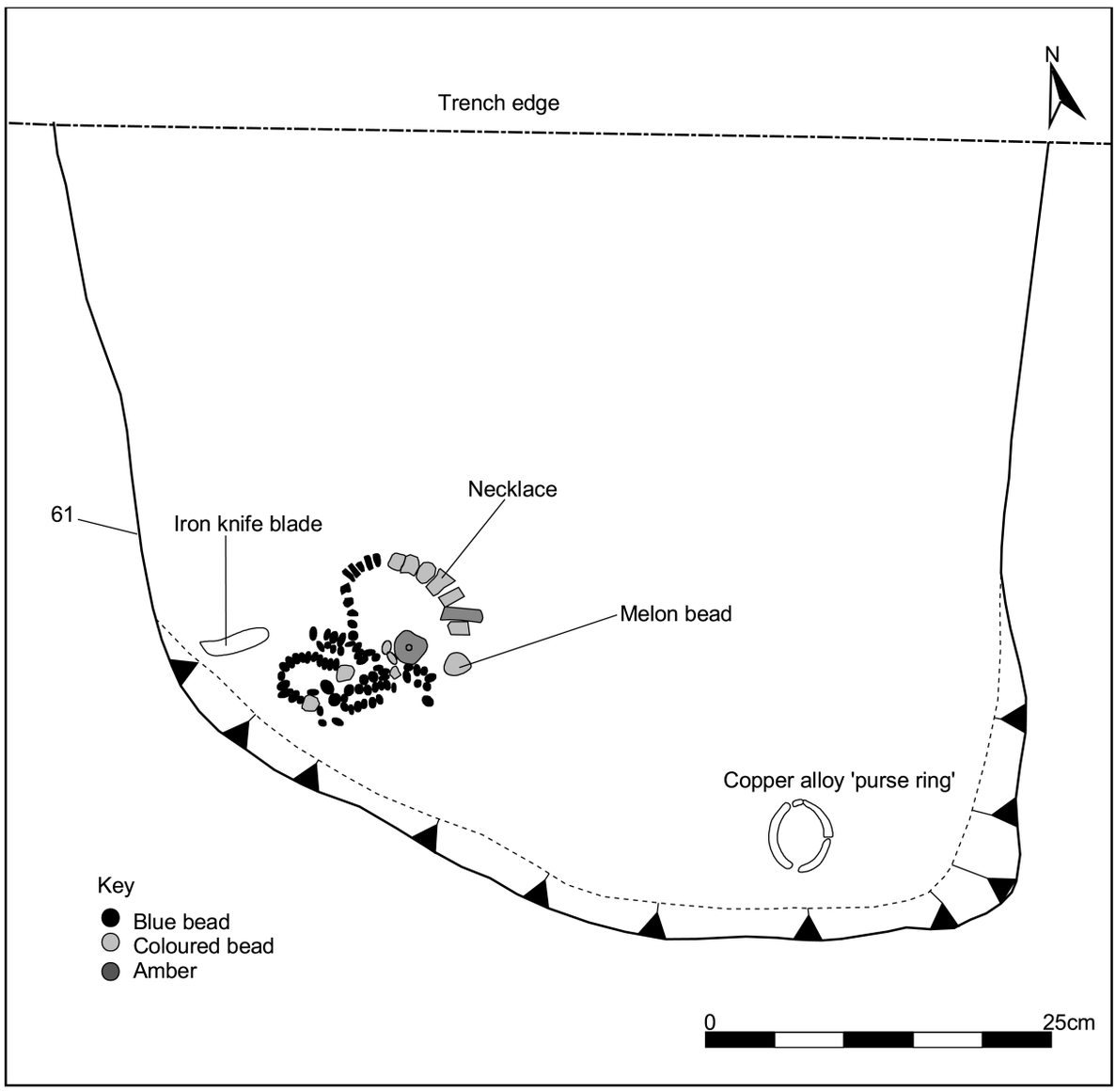

Figure 8 Possible inhumation burial 61 and grave goods

from burial pits 121 and 194, and burnt vessel glass from burial pits 238 and 467: in total, glass objects were recovered from twenty-nine cemetery features. Several cremation burials contained melted beads in small numbers (ones and twos). The melted beads do not necessarily all represent necklaces made up of large numbers of beads, as evidence from the female inhumation burials at Great Chesterford (Evison 1994) suggests that some females could be buried with only small numbers of beads.

Objects such as the necklaces, the individual glass beads and fragments of possible chatelaine chains/pins (in graves 8, 99, 373, 471 and 530) may be indicators of female burials and, conversely, shield fittings (in graves 387 and 405) and razors (grave 290) may be suggestive of male burials. In total, a maximum of thirty-one females and nine males were identified from pyre-good and bone analysis (Fig. 7). None of the apparent male burials identified from bone analysis contained glass beads; one (60) did contain copper-alloy fragments from a possible bucket and buckle loop and another (382) contained at least two iron nails. Overall, too few human bone assemblages were sexed to make any confident statements about the pattern of pyre goods in conjunction with the sex of the individual, although some discussion of distribution trends is attempted in Chapter 6. After analysis of the pyre goods from cremation burials at Spong Hill, McKinley (1994a, 88–9) concluded that no pyre-good type was exclusive to one sex. However, some items were found more often in graves of one sex or another (*e.g.* iron nails in male graves).

One pit (61), excavated during the evaluation and poorly understood due to the level of truncation and disturbance, may have been an inhumation burial. This pit was over 0.75m long, 0.7m wide and 0.15m deep. Although it appeared to continue beyond the northern edge of the evaluation trench it was not further identified during the excavation. The pit contained an unburnt bead necklace, an iron knife blade and a large copper-alloy ring (Fig. 8 and frontispiece). The 114 glass, amber and jet beads forming the necklace were lying close together and may have been buried in a bag along with the knife.

Although found lying 0.25m distant from the rest of the grave goods, it is probable that the copper-alloy ring formed part of this bag. Small amounts of unburnt Saxon pottery, from at least two vessels, were also recovered from this pit, along with a small quantity of cremated human bone, all of which could be residual in grave backfill material. No other inhumation burials were identified when the central area of the excavation was further reduced by machine.

Possible burials

It is likely that a small number of deposits identified as spreads were in fact the remains of highly truncated or disturbed cremation burials. This was certainly true of spread 147, which was derived from nearby cremation burial 148, and probably also of spreads 458 and 523, which may be the scant remains of burials in their own right. Small pits 369 and 615 may also be cremation burials from which virtually all traces of bone and nearly most of the pottery vessel have been removed.

Cemetery-related features

In addition to the definite and possible burials, another sixteen cemetery-related features were located. The majority of these were identified as pits, but linear features and post-holes were also present. With the exception of pit 520, at 0.68m, all of the pits were in excess of 0.8m in length. Generally the pits were dated as early Saxon on only a few sherds of pottery. A collection of deliberately buried pyre debris, including a spearhead, possible shield board fittings, melted glass beads, fuel ash slag and charcoal, was recovered from pit 203. An adjacent pit (214) contained charcoal, weathered cremated bone and pieces of an iron strip from a large buckle; pit 520 contained green glass globules. One small pit (129), in the south of the area, contained slight evidence of *in situ* burning and may have been located at the base of a fire.

Two clearly defined linear features were excavated. The longer of these (581) was *c.*6.5m long and aligned north–south, with both ends appearing to curve slightly towards the west. It may be a small ditch forming an internal demarcation within the cemetery, but, unfortunately, the dating is by no means certain, as it relies on one sherd of Saxon pottery. As 82g of burnt flint was also recovered, it is just as possible that this was a prehistoric feature with an intrusive Saxon sherd. The second linear feature (38/48/563) was *c.*3m long and aligned east–west. It had a rounded east end and to the west it had an uncertain relationship with an undated north–south linear feature (595). The dating of short linear feature 38/48/563 was slightly more convincing as it contained nine sherds of Saxon pottery along with a lesser amount of residual prehistoric and Roman material. No Saxon boundary feature was identified delineating the edge of the cemetery, nor were any graves enclosed within small ditches or gullies. It is possible that some of the post-holes may represent the position of timber grave-marker posts.

Post-cemetery activity

(Fig. 5)

Post-dating the Saxon cemetery was an interrupted gully (574/576) and three small pits (240, 242 and 244). The interrupted gully may have formed a boundary as all three pits were located to the east of this, albeit some distance away, close to the edge of the excavation area. Most were broadly dated on pottery evidence to the 10th to 14th centuries. The exception was pit 244, which contained a sherd dating to the late 15th or 16th century. These features are probably the product of scattered medieval agricultural activity across the landscape and are too few in number to allow any more meaningful interpretation.

Undated

(Fig. 5)

Twenty-nine features did not contain any dating evidence. These features varied from small post-holes to larger pits. Some were probably of natural origin and others may have been prehistoric, while a few may have been associated with modern activity. A noticeable concentration occurred close to the southern edge of the excavation area. Here, the two largest features, irregularly shaped pits 85 and 184, possibly both of natural origin, were cut by smaller Saxon features. Pit 117, also located close to the southern boundary, contained fragments of undiagnostic lava quern that could date to the Roman, Saxon or medieval periods.

Chapter 3. Gazetteer of Burials and Other Saxon Features

This gazetteer lists all burials and other features relating to the early Saxon cemetery, in feature number order. A total of 145 cremation burials, four possible cremation burials, a single possible inhumation burial, sixteen cemetery-related features and one surface find were recorded. All features were truncated, and some had also been disturbed by field drains and ploughing.

All cremated human bone is highly fragmented; diagnostic elements are recorded. Question marks indicate where the age/sex of an individual has only been determined as probable.

All pottery is early Saxon unless otherwise indicated. In general, substantially surviving urns were given their own individual context numbers. Partly surviving urns, often fragmented and mixed with backfill, were usually recovered under the context number of the fill. Myres' (1977) classification has been applied to the decorated vessels; stamp classifications are based on Briscoe's (1981) pottery stamp classification. Bead classifications follow Guido (1999) and the classification of knives refers to Böhner (1958).

The location of all features is shown in Fig. 3. A detailed plan of each burial is not included (other than burial 61) because of their simple and highly fragmentary nature.

Cremation burial 4
Spread, 0.09m x 0.09m. Very truncated
Single vessel, urn fill 6. Frequent charcoal
Urn 5: 14 lower body sherds from a plain vessel. Abundant organic temper
Cremated human bone: 17.4g
4x teeth roots

Cremation burial 8
Oval pit, 0.43m x 0.34m, 0.12m deep
Single vessel, urn fill 10, backfill 11
Urn 9: *c.*75% of a plain globular vessel (lower body and base). Abundant organic temper
Metalwork: iron chatelaine chain (6 fragments); total max. length 80mm

Cremation burial 12
Oval pit, 0.36m x 0.3m
Single vessel, urn fill 14, backfill 15. Rare charcoal in fill 14
Urn 13: *c.*30% of a stamp-decorated vessel (Fig. 15). Incomplete decorative scheme but includes two stamps: grid circle (Briscoe's type A3aii) and cruciform circle (type A4ai). Abundant organic temper
Cremated human *bone*: 115.2g from a single adult
left mandibular condyle and ramus
2x ilium, right scapula blade
left proximal ulna, distal humerus (capitulum)
proximal foot phalanx

Cremation burial 16
Spread, 0.15m x 0.1m. Very truncated
Single vessel, urn fill 18. Rare charcoal
Urn 17: 9 base/lower body sherds. Abundant organic temper
Cremated human bone: 74.2g from a single ?adult
2x proximal femoral shaft, anterior tibial shaft

Cremation burial 30
Oval pit, 0.6m x 0.45m, 0.14m deep
Single vessel, urn fill 33, backfills 31, 34
Urn 32: *c.*70% of a sub-biconical urn with footring base (rim missing); Myres' type II.6 or II.5. Decorated with concentric necklines, underneath which are diagonally slashed long bosses, between which is a scheme of '*hangende bogen*' infilled with panels of simple stamped dots (Briscoe's type A1ai) (Fig. 9). Hard fabric with abundant medium to large quartz sand
Cremated human bone: 954.1g from a single adult
4x tooth roots (including molar), right mandibular condyle, right superior zygomatic, numerous parietal, frontal and temporal fragments
14x vertebral body, 2x neural arch, 3x rib and 2x ilium
3x radial shaft, 1x ulna shaft, 2x humeral shaft, humeral head and 4 metacarpals, 3x proximal, 3x mid, 3x distal hand phalanges
21x femoral shaft, 3x tibial shaft, tibial plateau, fibula shaft, distal first metatarsal and proximal metatarsal, distal foot phalanx, sesamoid
Metalwork: iron and copper alloy fittings from a ?bucket or ?bowl; iron sheets, hundreds of flakes (max. length 10mm) from a thin iron sheet (or sheets) ?bucket fittings. Copper alloy globules, hundreds; object/s have melted and resolidified, unidentifiable. Wt. 17g
SF1: copper alloy and iron disc-headed rivet; rivet head copper alloy, shaft iron (broken off); diam. of head (incomplete) 15mm
Glass: SF66: melted glass bead, opaque black with opaque white trails

Cremation burial 36
Oval pit, 0.3m x 0.11m+, 0.09m deep. Disturbed
Single vessel, fill 37. Rare charcoal
Urn: 26 abraded sherds, including one rim (slightly everted, rounded). Some have deeply incised decoration, possibly concentric necklines. Common organic temper
Cremated human bone: 8.2g

Cemetery-related linear feature 38/48/563
Linear feature, 3m x 0.84m, 0.33m deep
Fills 39, 49 and 564
Pottery (49): base sherd. Abraded. Common organic temper
Pottery (564): eight base and body sherds. Abundant organic temper
Residual: three rim and body sherds, Roman grey and red wares (4g)

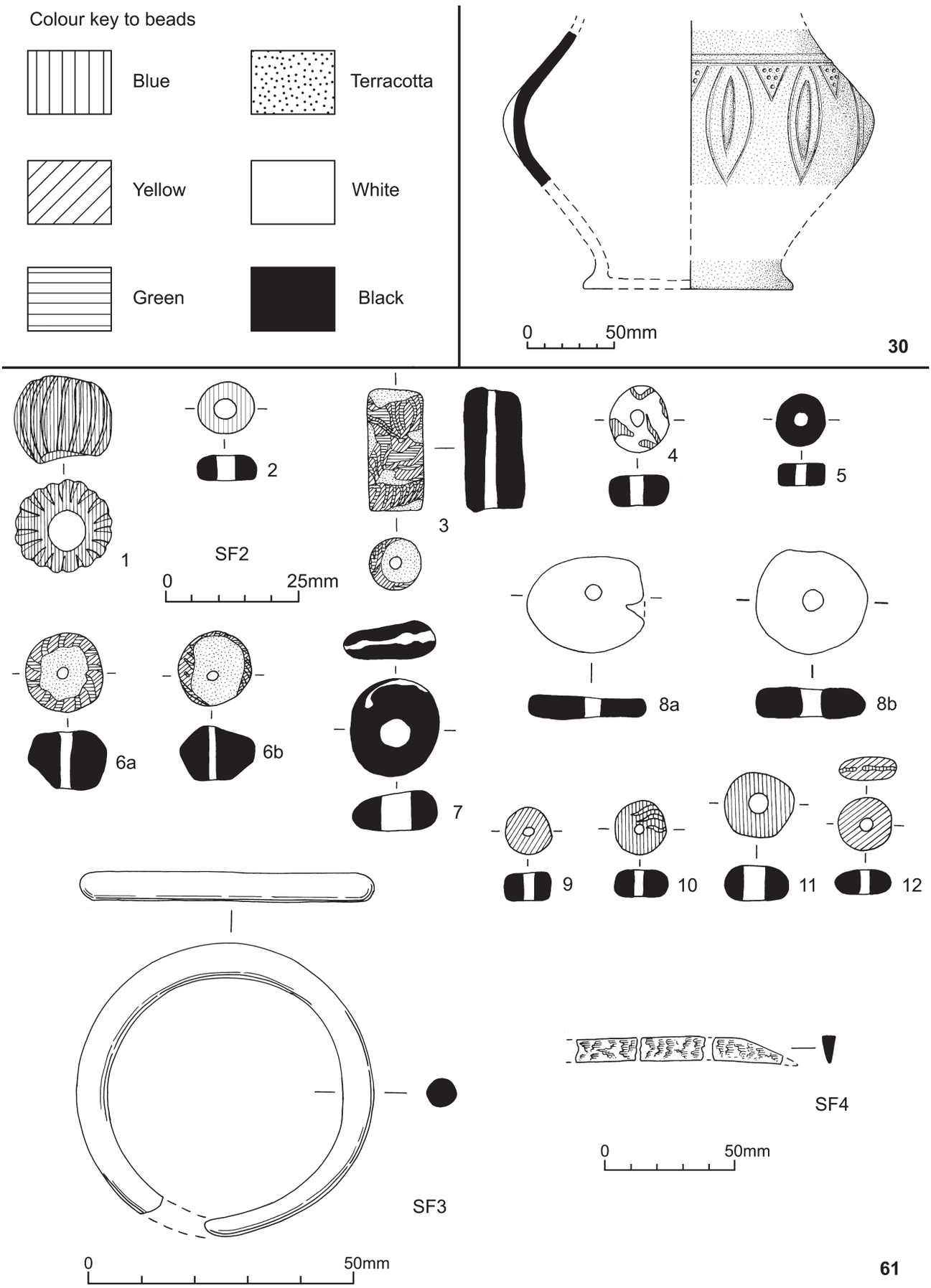

Figure 9 Glass bead colour key, urn from cremation burial 30 and grave goods from possible inhumation burial 61

Residual: two crumbs, prehistoric (2g)
Melted material/fuel ash: 4g
Burnt flint (564): 10g

Cremation burial 60
Oval? pit, 0.6m x 0.4m, 0.1m deep. Disturbed
Single vessel, urn fill 69, backfill 70. Fill 69 contained charcoal
Urn 68: *c.*80% of a large plain globular vessel, including one rim sherd (everted, rounded). Abundant organic temper (very friable)
Cremated human bone: 739.8g from a single adult ?male.
numerous parietal, temporal and conjoining occipital fragments x2, sphenoid, 2x anterior mandible, 5x tooth roots including left mand. I2, 10x crown
16x vertebrae, C3 body, ilium, 2x rib shaft
humeral shaft (22g), 2x humeral head, 3x mid hand phalanges (distal end only)
femoral shaft (41g), femoral head (8g), 1x tibial shaft, 1x distal fibula, sesamoid
Metalwork: copper alloy flake; flat, square and thin. ?Fragment of plating from a bucket or similar vessel. Approx. 8mm square. Copper alloy fragment; from a buckle loop?
Animal bone (burnt): probable long bone x5, species unidentifiable, all dark grey/blue (1g)
Baked clay: 12g

Inhumation burial 61
Oval pit, 0.76m x 0.7m, 0.15m deep. Disturbed
Fill 62. Rare charcoal
Pottery: 16 sherds from at least two vessels: 14 body sherds in an organic-tempered fabric
2 body sherds in a sandy fabric. Abraded
Residual: four prehistoric rim and body sherds (10g)
Cremated human bone: 12.2g
Metalwork: SF4: iron knife blade (Fig. 9) in three joining sections; Böhner's type B (tip is missing). Iron rivet in position through tang; mineralised wood in proximity to rivet on both sides of tang. In fair condition. Max. length (incomplete) 79mm. Max thickness tang 9mm; blade 6mm
SF3: copper alloy ?bracelet or ?ring for suspension of objects at the waist (Fig. 9). Oval in cross-section. Poor condition. Max. external diam. approx. 60mm; max. internal diam. approx. 45mm; thickness 7mm
Glass, amber and jet: SF2: necklace comprising 114 beads (110 glass, 2 jet and 2 amber):
Large faience melon bead, of Roman manufacture (Fig. 9, 1). Maximum external diameter 20mm
95x annular translucent blue glass beads; all of a similar size; three fragmentary; average external diameter 9mm; average perforation diam. 4mm (Fig. 9, 2)
Cylindrical opaque glass bead; terracotta red with inlaid, marvered opaque yellow and translucent green striped wavy lines (Fig. 9, 3). Guido's type 8xixa. Length 22mm; diam. 10mm; perforation 3mm. Plus frags of a second terracotta red opaque glass bead.
2x annular opaque white glass beads with inlaid, marvered light blue crossed waves and light blue dots (Fig. 9, 4). Guido's type 3iiib. Max. external diam. 12mm; perforation 4mm
2x jet beads; truncated cylinder (Fig. 9, 5). Max. external diam. 9mm; perforation 4mm
2x bun-shaped terracotta red opaque glass beads, one with green and yellow inlaid, marvered twisted bands (Fig. 9, 6a). Guido's type 8xviiib. Max. diam. 14mm; perforation 3mm. The second with green and yellow inlaid, marvered marbled bands (Fig. 9, 6b). Guido's type 8xviiic. Max. diam. 15mm; perforation 3mm
2x annular opaque black glass beads with white inlaid, marvered wave (Fig. 9, 7). Guido's type 2v. Max. diam. 18mm; perforation 6mm. One in poor condition. White inlay has fallen out.
2x large annular amber beads (Fig. 9, 8a and 8b). Max. diams 22mm and 21mm
2x truncated cylinder opaque yellow glass beads (Fig. 9, 9). Guido's 4ii. Max. external diam. 9mm; perforation 3mm
2x short barrel-shaped translucent blue glass beads with paler blue swirling lines (Fig. 9, 10). Guido's 6iv. Diam. 9mm; perforation 2mm. Diam. 8mm; perforation 2mm
Short barrel-shaped turquoise translucent glass bead (Fig. 9, 11). Max. diam. 12mm; perforation 4mm
2x annular opaque yellow glass beads with inlaid, marvered opaque blue girth line (Fig. 9, 12). Max. diam. 9mm; perforation 3mm

Cremation burial 71
Oval pit, 0.3m x 0.16m, 0.12m deep
Single vessel, fill 73
Urn 72: c.75% of a decorated urn, including six everted, rounded rim sherds (two join). Incomplete decoration includes incised lines and stamps (one stamp used a grid rectangle, Briscoe's type C2ai) (Fig. 15).
Cremated human bone: 26.3g

Cremation burial 74
Oval pit, 0.56m x 0.35m, 0.13m deep
Single vessel, fill 75
Urn: 8 body sherds including one decorated with three incised necklines underneath which is a series of segmented 'S' stamps (one stamp used Briscoe's type H2ai) (Fig. 15). Hard fabric tempered with common organic and common quartz-sand.
Cremated human bone: 0.6g
Metalwork: copper alloy fragments, tiny, flattish; from a buckle plate?

Cremation burial 79
Circular pit, 0.33m diameter, 0.15m deep
Single vessel, urn fill 77, backfill 76. Rare charcoal
Urn 78*: c.*50% of a plain globular urn (no rim, base very fragmented). Hard fabric with abundant
small quartz-sand.
Cremated human bone: 748.8g from a single adult, aged 15–24 years. Fragmented
3x tooth roots including upper PM1s, left mandibular condyle, left superior zygomatic, nasal fragment, numerous vault fragments
3x rib, 2x vertebral body, 7x neural arch, scapula blade and 9x (15g) ilium, left pubis, partial right sciatic notch and auricular surface
proximal radial shaft, right lunate, 2x distal articular metacarpal, mid hand phalanx
4x tibial shaft (18g), 6x femoral shaft (25.8g), 3x tibial plateau (4.5g), partial patella (2.9g)
Glass: SF53: melted bead; opaque black with cremated human bone incorporated

Cremation burial 80
Oval pit, 0.25m x 0.12m, 0.08m deep
Single vessel, fill 82
Urn 81: *c.*25% of a ?globular vessel. No rim or base
Cremated human bone: 26.4g from a single adult

single vault fragment, left mandibular ramus, right posterior mandible with partial socket
1x femoral shaft

Cemetery-related pit 87
Oval pit, 1.5m x 0.95m, 0.15m deep
Fill 88
Pottery: single body sherd; abraded. Common organic temper

Cremation burial 91
Oval pit, 0.33m x 0.24m, 0.2m deep
Single vessel, urn fill 93, backfill 96
Urn 92: *c.*75% of a plain globular pot with slightly sagging base. Abundant organic temper
Cremated human bone: 145.6g from a single juvenile
all parietal and temporal fragments
1x rib (0.4g)
2x femoral head (15g), fibula shaft (2.5g), 2x ?femoral neck (2.6g)

Cremation burial 94
Circular pit, 0.23m diameter, 0.2m deep
Single vessel, fill 95. Common charcoal
Urn: *c.*25%, lower body sherds and footring base. Sparse organic temper
Cremated human bone: 168.2g from a single adult ?male
numerous vault fragments (22.6g), supraoccipital (9.4g), anterior tooth root, small crown
cervical body, thoracic spinous process (3.2g total)
2x distal articulation of proximal hand phalanges, distal hand phalanx (0.7g total)
femuro-patella articulation (anterior) (2.8g), mid foot phalanx (0.3g)

Cremation burial 97
Sub-oval pit, 0.28m x 0.26m, 0.22m deep
No finds, fill 98 (sample mislaid)

Cremation burial 99
Circular pit, 0.52m diameter, 0.18m deep
Single vessel, fill 100. Rare charcoal
Urn: *c.*30% of plain, globular vessel; includes one small rim sherd (slightly everted, rounded).
Abundant organic temper
Cremated human bone: 158.5g
all vault fragments
Metalwork: SF64: iron rod, from a rivet, pin or chatelaine. Circular in cross-section. Length (incomplete) 13mm

Cremation burial 104
Oval pit, 0.26m x 0.25m, 0.03m deep. Truncated/ disturbed
Single vessel, fill 105
Urn: 19 body sherds. Medium hard sandy fabric
Cremated human bone: 13.3g

Cremation burial 110
Oval pit, 0.28m x 0.20m, 0.09m deep
Single vessel, fill 112
Urn 111: *c.*30% of lower body sherds from a plain globular vessel. Abundant organic temper
Cremated human bone: 46g
petrous temporal (3.0g)

Cremation burial 113
Oval pit, 0.45m x 0.32m, 0.09m deep
Single vessel, urn fill 115, backfill 116. Common charcoal in fill 115
Urn 114: *c.*30% of a plain globular pot. Abundant organic temper
Cremated bone: 19.9g
includes a rib from a foetal/neonatal sheep/goat
Baked clay: 2g

Cremation burial 119
Oval pit, 0.15m x 0.12m, 0.25m deep
Single vessel, fill 120
Urn: 33 lower body sherds. Abundant organic temper
Cremated human bone: 3.8g

Cremation burial 121
Oval pit, 0.31m x 0.19m, 0.10m deep
Single vessel, fill 123
Urn 122: *c.*25% of a sub-globular or biconical vessel (rim missing); Myres' type II.2. Elaborate decoration comprising: three concentric necklines, above which is at least one panel of large rosette stamps (Briscoe's type A5ai); beneath the necklines is a panel of simple stamped rectangles (Briscoe's type C1aii) and faintly impressed lines formed by small dots (?rouletting); beneath this are outlined bosses infilled with three different stamps: cruciform circles (Briscoe's type A4ai), rosettes (type A5bi) and plain circles (type A1bi) (Fig. 10). Abundant organic temper
Cremated human bone: 401.2g from a single adult
numerous vault fragments, all areas (67.2g), 3x petrous temporal (11.4g), left orbital (2.1g), anterior mandible (2.7g), left coronoid process (0.5g), left superior zygomatic (1.5g), 6x tooth root
6x rib (5.7g), ilium (2.3g), 2x neural arch (0.9g), clavicle shaft (3.3g) ulna shaft (5.6g), humeral shaft (8.8g)
2x fibula shaft (8.6g), 11x femoral shaft (28.8g), 3x tibia shaft (7.8g)
Glass: melted remains of a glass bead necklace. SF6: two glass beads fused together; one is plain opaque black glass and one is a pale blue/white melon bead (Fig. 10). SF7: large globule of at least three glass beads fused together; one bead is plain translucent green glass, one is black with marvered opaque white spots, and one is blue with opaque white and terracotta red lines and dots; exact types not discernible as considerable distortion has taken place. SF8: opaque pale blue/white glass bead; shattered. SF52: melted globules of glass from beads; not possible to discern forms, colours include opaque white, black and green. Tiny fragments of shattered translucent blue glass.

Cremation burial 126
Circular pit, diameter 0.48m, 0.18m deep
Single vessel, fill 127. Rare charcoal
Urn: *c.*25% of a biconical pot; Myres' type II.6 Long boss style (Fig. 10). Slightly flaring rim, flattened on top. Decorated with applied solid long bosses around girth, demarcated either side by incised curving vertical lines. Medium organic temper
Cremated human bone: 1241.6g from a single ?adult
all parietal and temporal fragments, single complete upper first PM root (probable right/14)
rib (3.1g), cervical vertebra (1.3g)
humeral shaft (9.9g), proximal ulna shaft (4.8g)
tibia shaft (24.8g), fibula shaft (1.9g), femur shaft (150g)
Metalwork: iron pyre debris; SF61: fuel ash slag with some cremated human bone and iron artefact fused in, no longer identifiable.
Animal bone (burnt): cattle x4; acetabular rim; accessory carpal; vertebral endplate (80g) (other fragments among cremated bone)

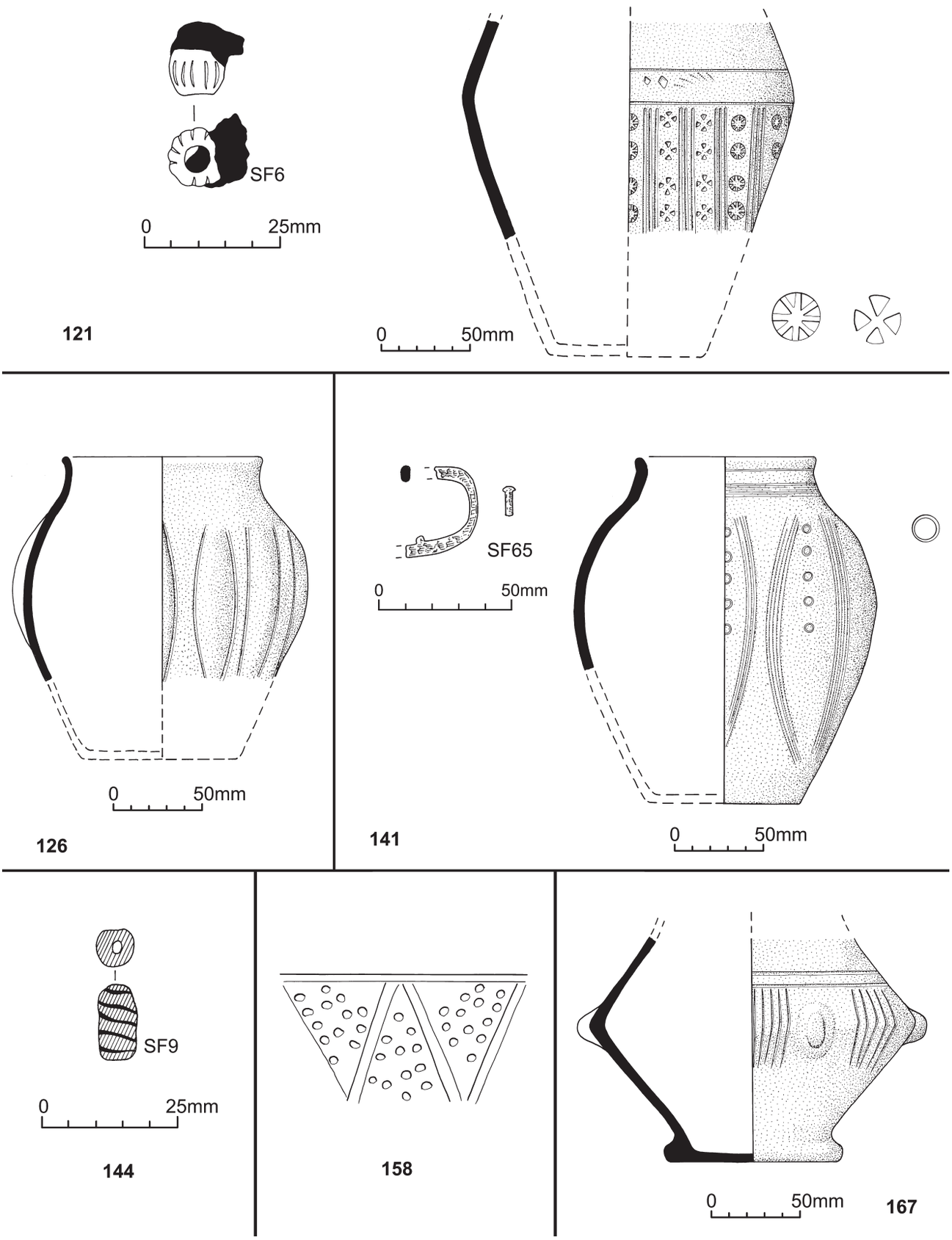

Figure 10 Pyre goods and urns from cremation burials 121, 126, 141, 144 and 167, decorative scheme from cremation burial 158

Cemetery-related pit 129
Oval pit, 0.82m x 0.56, 0.20m deep. Edges reddened by heat
Fill 130. Contained moderate charcoal
Pottery: 10 very abraded sherds. Common organic temper
Baked clay: 40g

Cremation burial 137
Irregular pit, 0.28m x 0.22m, 0.14m deep
Single vessel, fill 138
Urn: 6 sherds including one rim (everted, rounded). Sandy fabric
Cremated human bone: 9.4g
3x femoral shaft (abraded)

Cemetery-related post-hole 139
Oval, 0.28m x 0.21m, 0.17m deep
Fill 140
Cremated human bone: 9.8g (residual)
petrous temporal (2.9g)
posterior vertebra (0.9g)

Cremation burial 141
Oval pit, 0.33m x 0.26m, 0.16m deep
Single vessel, fill 143. Occasional charcoal
Urn 142: *c.*60% of a decorated sub-biconical pot, slightly everted, rounded rim; Myres' type II.2. Thin-walled. Decoration comprising at least seven shallowly incised concentric necklines, underneath which are vertical panels of stamped circles (Briscoe's type A1bi) enclosed by shallowly incised outlined vertical ovals (Fig. 10). Closely related to cremation burial 126 (11m away). Abundant organic temper
Cremated human bone: 238.6g
supra occipital (3.1g), single unidentified tooth root
rib (0.7g)
femoral shaft (20.8g)
Metalwork: SF65: iron buckle; *c.*50% complete, three joining sections forming the back and beginnings of pin attachment, rest of loop missing; possibly D-shaped; loop flattish oval in cross section (max. thickness 7mm) (Fig. 10). Length of buckle 45mm; width approx. 30mm (estimate). Fragments of cremated human bone adhering. Iron nail: top half of a thick nail; head diam. 15mm

Cremation burial 144
Oval pit, 0.18m x 0.17m, 0.01m deep. Very truncated
No vessel, fill 145. Flecks of charcoal
Glass: SF9: black cylindrical bead with marvered yellow bands (Fig. 10). Unburnt and in good condition. Length 12mm; max diam. 6mm

Spread 147 (disturbed remains from burial 148)
Pottery: 5 body sherds, poorly fired or subsequently burnt. Abundant organic temper (same vessel as 149)
Glass: SF10: fragment of melted glass bead; terracotta red with opaque white marbling. Cremated human bone adhering

Cremation burial 148
Oval pit, 0.23m x 0.2m, 0.06m deep. Heavily truncated
Single vessel, fill 150
Urn 149: 60 sherds, poorly fired. Abundant organic temper (some of vessel in 147)
Cremated human bone: 58.1g
rib (0.8g)
humeral shaft (8.8g), ulna shaft (2.1g)
great trochanter (6.4g)

Cremation burial 156
Circular pit, 0.38m diameter, 0.12m deep
Single vessel, urn fill 155, backfill 153
Urn 154: *c.*50% of a plain globular vessel. Abundant organic temper with common iron oxide
Cremated human bone: 62.2g

Cremation burial 158
Oval pit, 0.27m x 0.21m, 0.11m deep
Single vessel, fill 160. Occasional charcoal
Urn 159: *c.*50% of a decorated globular vessel (no rim); Myres' type II.2. Decorative scheme (Fig. 10) not possible to completely reconstruct but includes triangles infilled with stamped dots (Briscoe's type A1ai). Abundant organic temper
Cremated human bone: 481.6g from a single ?adult
orbit (3.5g), tooth roots, including molar (1.1g), misc. vault fragments (42.8g)
rib (1.1g), vertebrae (2.3g) scapula (1.2g)
humeral shaft (28.5) hand phalanx (0.9g)
femoral shaft (41.4g), tibia shaft (32.6g)

Cremation burial 161
Oval pit, 0.23m x 0.2m, 0.08m deep
Single vessel, fill 163
Urn 162: 50 body sherds from a globular vessel. Abundant organic temper
Cremated human bone: 32.6g
carpal (0.5g), radial shaft (1.1g)

Cremation burial 167
Oval pit, 0.29m x 0.19m, 0.08m deep. Disturbed
Single vessel, fill 169
Urn 168: *c.*50% of a carinated vessel with footring base (rim missing); Myres' type II.5. Decorated with solid applied oval bosses around carination, incised lines between, above which are two concentric incised necklines (Fig. 10). Sandy fabric with roughened outer surface 'schlickung' on lower half of pot. Base diam. 96mm
Cremated human bone: 213.1g
rib (1.7g), vertebrae (0.8g)
trapezoid (0.7g)
tibia (including tuberosity) (11.4g), tarsal (2.4g)
Glass: SF55: bead, annular, terracotta red

Cremation burial 170
Oval pit, 0.34m x 0.28m, 0.09m deep
Single vessel, fill 172. Occasional charcoal
Urn 171: *c.*60% of a plain globular vessel. Rim missing. Abundant organic temper with common iron oxide
Cremated human bone: 432.1g from a single ?adult
anterior mandible (1.2g), maxilla with tooth root (1.0g), numerous parietal, temporal and occipital fragments (94.2g)
vertebrae (7.1g), rib (0.6g), left acromion (1.9g)
hand phalanx (0.3g)
patella (2.3g), tibia (7.0g), proximal femoral shaft (5.3g)

Cremation burial 173
Oval pit, 0.25m x 0.22m, 0.04m deep. Very truncated
Single vessel, fill 175. Occasional charcoal
Urn 174: 60+ body sherds. Abundant organic temper
Cremated human bone: 129.7g
2x cervical vertebrae (2.9g)
humerus including head (6.1g), pisiform (0.5g)

Cremation burial 176
Circular pit, 0.3m diameter, 0.03m deep. Very truncated
Single vessel, fill 178
Urn 177: 22 body sherds from a globular pot. Abundant organic temper
Cremated human bone: 38.8g
vertebra (1.2g)

Cremation burial 181
Circular pit, 0.18m diameter, 0.08m deep
Single vessel, fill 183. Rare charcoal
Urn 182: 55+ body sherds. Abundant organic temper
Cremated human bone: 82.1g
petrous temporal (2.1g)
Metalwork: SF56: iron nail in 3 sections, square-headed, shaft square in cross-section before tapering to point. Length 40mm
Animal bone (burnt): sheep/goat rib x4 (vertebral end), 2.3g

Cremation burial 186
Oval pit, 0.4m x 0.3m, 0.07m deep. Disturbed
Single vessel, fill 185
Urn: 8 base sherds. Common organic temper and common quartz-sand
Cremated human bone: 0.4g

Cremation burial 187
Oval pit, 0.28m x 0.25m, 0.08m deep
Single vessel, fill 189
Urn 188: 65 base and lower body sherds from a globular vessel. Abundant organic temper
Cremated human bone: 207.7g
left superior orbital (1.1g)
rib (2.4g), vertebrae (5.4g)
hand phalanx (0.2g)

Cremation burial 190
Oval pit, 0.35m x 0.25m, 0.11m deep
Two vessels? fill 191. Rare charcoal
Urn/Accessory vessel: 9 upper body sherds including rim (flaring, rounded). Common organic temper
Urn/Accessory vessel: 25 body sherds. Common organic temper
Cremated human bone: 215.9g
Glass: SF40: two melted beads; one translucent blue and opaque white; one dark translucent blue, cremated human bone adhering

Cremation burial 193
Oval pit, 0.54m x 0.40m. *c.*0.04m. Very truncated
Single vessel, fill 192
Urn: 14 body sherds including rim (everted, rounded). Abundant organic temper

Cremation burial 194
Oval pit, 0.4m x 0.34m, 0.11m deep
No vessel, fill 195. Rare charcoal
Cremated human bone: 185.4g
rib (0.4g)
femoral shaft (25.3g)
Metalwork: SF12, SF30: iron buckle; fragmentary with pin in position (5 joining sections) (Fig. 11). D-shaped, loop is oval in cross section but of variable thickness; pin is rectangular in cross section. Length 40mm x width 20mm with a max. loop thickness of 8mm. Length of pin 25mm
Glass: melted remains of a necklace. SF11: melted bead, opaque terracotta red. SF13: melted bead, translucent pale blue. SF14: melted glass beads, probably at least three — opaque white, translucent green and terracotta red. SF15: melted bead fragment, probably two beads — translucent green, terracotta red. SF29: melted glass beads, up to 20 beads; colours present: opaque black; opaque green; opaque white; opaque terracotta red; translucent green

Cremation burial 200
Oval pit, 1.8m x 1m, 0.28m deep
Single vessel, fill 201
Urn: rim sherd (everted, rounded) and 49 body sherds. Common organic temper
Cremated human bone: 10.8g (weathered)

Cemetery-related pit 203
Oval pit, 0.88m x 0.59m, 0.26m deep
Fill 204 contained 262g of material that can be described as pyre debris: *c.*40 amorphous lumps of various material fused together including melted glass (some definitely identifiable as beads), fired clay, iron nodules and fuel ash slag. Contained charcoal
Pottery: residual; six prehistoric rim and body sherds (20g)
Metalwork: SF17: iron knife fragment. Tang and beginnings of the blade of a small knife, not possible to determine original length or shape (Fig. 11). Part of a toilet set? Length (fragment) 26mm. SF18: iron square-headed rivet. ?possibly from a shield board, approx. 30mm square. SF19: iron section of rod, flattish in cross section, length (incomplete) 30mm. SF20: iron plate fragment; remains of a rivet in position. SF21: iron section of rod, irregular in cross section, length (incomplete) 30mm. SF22: iron spearhead. Small angular spear or javelin head, Swanton's series H, type H1 (Fig. 11). Length of shank 40mm; length of blade 65mm (total length 105mm). SF23: iron ?hook for suspension. Unconserved, but x-radiograph appears to show a loop for suspension at one end; other end hooked, length (incomplete) 70mm. SF24: iron section of rod, flattish in cross section, tapers along length. Length (incomplete) 45mm. SF25: iron square-headed rivet. ?From a shield board, 26mm square. SF26: iron section of rod. Oval in cross section, length (incomplete) 35mm
Collection of iron fittings and other objects, comprising: eight nails — all fragmentary; four circular plates with central rivets, one with a double plate with central rivet in position (x-radiograph shows rivet passing through both plates); 24 other objects, mostly amorphous and not possible to identify with any certainty, but x-radiographs show that some have rivets. All of the above could be fittings, rivets and nails from a single object, possibly a wooden box or shield board. Alternatively, some of the circular riveted plates could derive from a belt set.
Melted material/fuel ash: 250g

Cremation burial 205
Oval pit, 0.25m x 0.21m, 0.08m deep
Single vessel, fill 207. Rare charcoal
Urn 206: *c.*30% of a plain globular vessel. Abundant organic temper

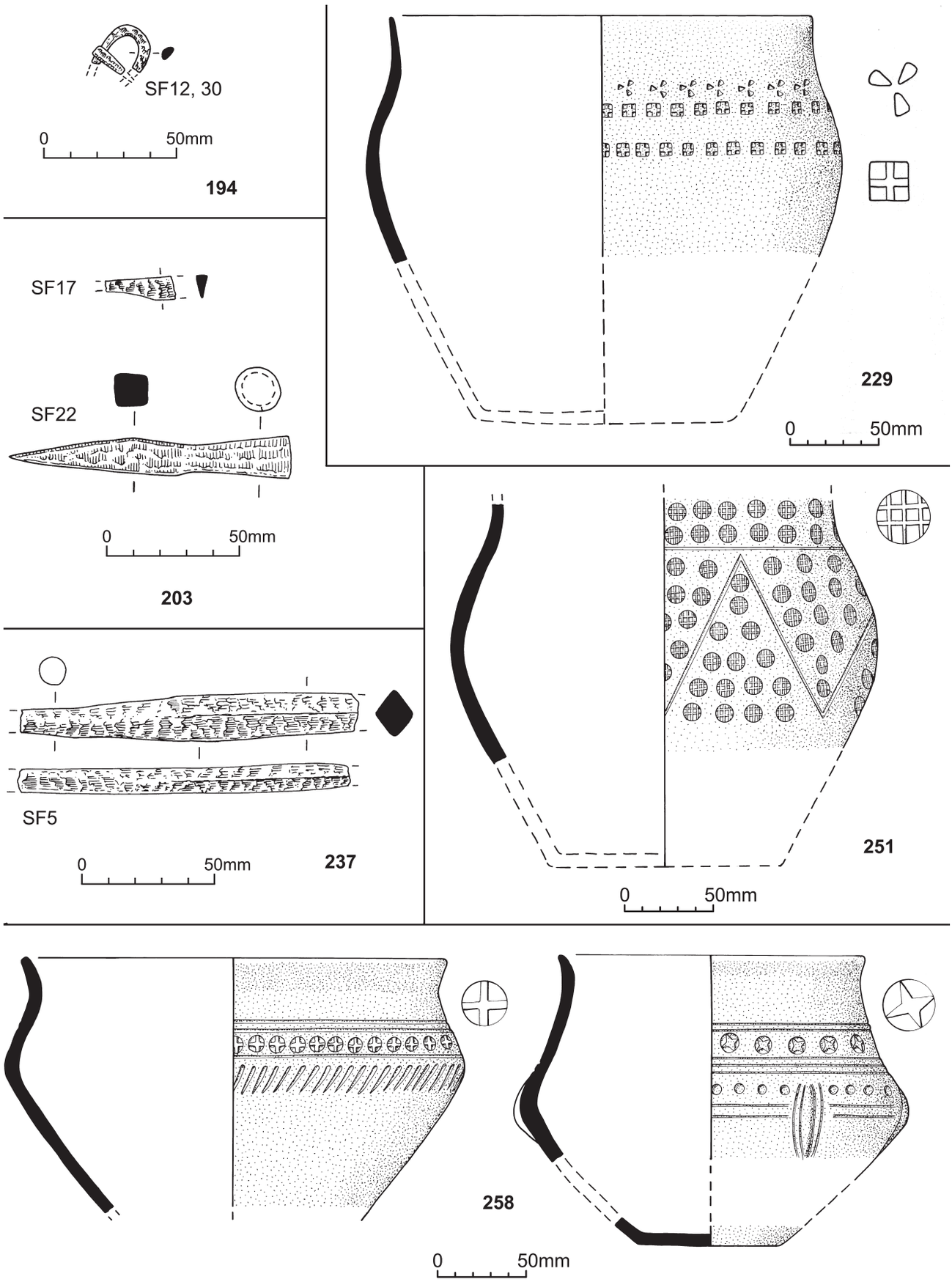

Figure 11 Pyre goods and urns from cremation burials 194, 229, 251 and 258, pyre goods from pit 203 and spearhead from context 237

Cremated human bone: 147.1g
right parietal (4.9g)
rib (0.8g), left superior auricular surface (3.6g)
humeral shaft (5.4g)
tibial tuberosity (2.2g)

Cremation burial 208
Oval pit, 0.18m x 0.15m, 0.04m deep. Very truncated
Single vessel, fill 209. Occasional charcoal
Urn: 24 body sherds. ?Globular vessel. Abundant organic temper
Cremated human bone: 2.2g

Cremation burial 210
Circular pit, 0.08m deep
Single vessel, fill 211
Urn: 16 body sherds. Decorated. Panels of stamped decoration within incised lines; two stamps used: a double circle (Briscoe's type A2ai) and an outline cross (B2bi) (Fig. 15). Abundant organic temper
Cremated human bone: 7.6g

Cremation burial 212
Circular pit, 0.15m diameter, 0.04m deep. Very truncated
Single vessel, fill 213. Occasional charcoal
Urn: *c.*30% of a plain globular vessel. Abundant organic temper
Cremated human bone: 48.8g
mandible (1.4g)
vertebrae (2.5g), rib (1.0g), scapula blade (1.0g)
proximal hand phalanx (0.4g)

Cemetery-related pit 214
Oval pit, 0.8m x 0.42m, 0.09m deep
Fill 215. Common charcoal
Pottery: 5 body sherds. Abundant organic temper
Residual: six body sherds, Roman sandy grey ware (26g)
Residual: prehistoric body sherd (4g)
Cremated human bone: 5.6g (some weathering)
Metalwork: SF31: iron strip; thin strip in 5 pieces, thickened at one end, curved at the other; ?pin from a large buckle; rectangular in cross section. Length 45mm; thickness 3mm

Cremation burial 216
Irregular pit, 0.29m x 0.27m, 0.1m deep
Single vessel, fill 218
Urn 217: *c.*30% of a plain globular vessel. Abundant organic temper
Cremated human bone: 613.9g from a single adult
petrous temporal (8.2g), basilar occipital (1.9g), parietal (16.3g)
vertebrae (19.7g), rib (2.3g), ilium (9.0g)
humerus (7.4g), hand phalanx (1.1g)
femoral shaft (46.5g), distal femoral articular surface (14.5g), fibula (1.2g), tibial shaft (11.9g), tibial plateau (5.1g), distal left tibia (7.0g), distal right metatarsal (3.2g) — fused
Animal bone (burnt): sheep/goat rib, ?sheep long bone, charred and longitudinally split (3.6g)

Cremation burial 219
Irregular pit, 0.2m x 0.3m, 0.02m deep. Very truncated
No vessel, fill 220. Common charcoal
Cremated human bone: 14.8g (abraded/weathered)
tibia shaft (6.0g)

Cremation burial 221
Circular pit, 0.18m diameter, 0.01m deep. Heavy truncation and compaction
Single vessel, fill 223
Urn 222: 24 base body sherds plus tiny crumbs. Abundant organic temper
Cremated human bone: 16.6g
Glass: bead fragment; blue or black

Cremation burial 224
Oval pit, 0.4m x 0.2m, 0.07m deep
No vessel, fill 225. Common charcoal
Cremated human bone: 56.6g
Metalwork: SF39: iron buckle fragment (pin); square in cross section; rounded and curved at its tip. Length (broken off) 1mm

Cremation burial 226
Oval pit, 0.28m x 0.25m, 0.11m deep
Single vessel, fill 228. Root disturbed. Rare charcoal
Urn 227: *c.*40% of a plain globular vessel with footring base and everted, rounded rim. Abundant organic temper. Max. base diam. 100mm
Cremated human bone: 236.9 from a single adult
superior orbit (1.0g), mastoid (2.1g), mandibular condyle (0.8g), left superior zygomatic (1.4g)
acromion (4.7g), vertebrae 4.4g, rib (4.2g)
radial tuberosity (1.8g)
distal femur (11.0g)

Cremation burial 229
Circular pit, 0.42m diameter, 0.25m deep
Single vessel, urn fill 234, backfill 231 and 232. Rare charcoal
Urn 230: *c.*60% of a large sub-globular pot; Myres' type II.1. Abraded rim appears to be fairly upright and rounded. Decorated with two concentric panels of stamps, two stamps used: a segmented or cruciform square (probably a variation on the cruciform circles, Briscoe's type A4aiii) and segmented triangle (type E4) (Fig. 11). Abundant organic temper
Cremated human bone: 373.1g (abraded/weathered) from a single ?adult (15+)
charred tooth root — 24? (0.4g)
ribs including left rib head (8.4g), scapula (4.8g), vertebrae (7.6g)
humeral shaft (12.8g), right proximal ulna (3.6g)
femoral shaft (38.8g), tibia shaft (26.9g), charred superior patella (1.5g), right navicular (2.7g)
Glass: shattered bead; pale translucent green glass
Animal bone (burnt): probable animal bone x1, charred (0.8g)

Cremation burial 235
Circular pit, 0.19m diameter, 0.04m deep. Very truncated
Single vessel, fill 236. Occasional charcoal
Pottery: 38 base and lower body sherds of a globular vessel. Flat base. Common organic temper
Cremated human bone: 4.9g from a single infant/neonate
3x deciduous tooth crown (molar) (0.2g), petrous temporal (0.6g), vault fragments (0.3g), mandibular condyle (0.2g)
Glass: SF45: melted bead; translucent blue glass.

Surface find 237
Metalwork: SF5: iron spearhead. Swanton's series H; type H1. Short, angular blade, lozengiform in cross section (Fig. 11). Shaft circular in cross section. In fair condition. Length (tip missing) 124mm (shaft 34mm, blade 90mm); thickness of shaft 14mm, of blade 16mm

Cremation burial 238
Circular pit, 0.25m diameter, 0.1m deep
Two vessels, fill 239. Rare charcoal
Urn: base of large pot. 30 sherds, abundant organic temper. Max. base diam. 90mm
Accessory vessel: 19 sherds of much abraded soft sandy fabric
Cremated human bone: 57.4g from a single ?adult
Tooth root ?anterior (0.2g)
femoral shaft (6.9g)
Metalwork: SF27: copper alloy plate fragments and rivets with iron flakes; ?fittings from a box or bucket. Wt. 15g
Glass: SF28: globules of melted vessel glass; pale translucent green (typical of cone beakers). Wt. 22g

Cremation burial 249
Irregular pit, 0.23m x 0.19m, 0.05m deep. Very truncated
Single vessel, fill 248
Pottery: 43 sherds, *c.*25% of a plain globular pot including base and rim (everted, rounded), probably from a single vessel

Cremation burial 251
Oval pit, 0.34m x 0.28m, 0.12m deep. Compacted
Single vessel, fill 253. Rare charcoal
Urn 252: *c.*50% of a large ?globular pot; Myres' type II.2 or II.7. Decorated with one concentric panel of stamps demarcated by incised lines, beneath which is a series of pendant triangles infilled with stamps (Fig. 11). Only one stamp is used, namely a grid circle (Briscoe's type A3aii). Abundant organic temper
Cremated human bone: 237.1g from a single adult
mandible (1.1g), orbital (1.2g), right superior zygomatic (1.0g), teeth (0.3g) including anterior tooth root
vertebrae (4.4g), auricular fragments (1.5g)
femoral shaft (13.2g), tarsal (0.9g), distal fibula (0.9g)

Cremation burial 256
Oval pit, 0.28m x 0.21m, 0.14m deep
Single vessel, fill 257
Urn: *c.*25%, base and lower body sherds from a plain ?globular pot. Abundant organic temper
Cremated human bone: 216.5g from a single ?adult
rib (0.7g), scapula (1.3g), C3 body (1.8g)
humeral shaft (13.0g),
femoral shaft (14.3g), tarsals (3.0g)

Cremation burial 258
Oval pit, 0.69m x 0.67m, 0.25m deep
Two vessels, urn 259 filled by 260, urn 261 filled by 262, backfill 263. Common charcoal in fills 260 and 262
Urn 259: *c.*50% of a carinated bowl; Myres' type II.2. Decoration comprising two incised concentric necklines, underneath which is a row of cruciform circle stamps (Briscoe's type A4ai); beneath this is a series of incised slashed curving lines (Fig. 11). Common organic temper in an unusually hard fabric
Urn 261: *c.*25% of a carinated bowl with everted, rounded rim and flat base; Myres' type II.6. Decorated with seven concentric incised lines incorporating a row of cruciform circle stamps (Briscoe's type A4aii); equidistant around the lower half of the vessel and interrupting a concentric row of simple circle stamps (Briscoe's type A1ai) are long bosses slashed with incised curving lines (Fig. 11). Hard fabric with common quartz-sand and common organic temper
Cremated human bone (260): 311.2g from a single ?adult
anterior mandible (1.0g)
ilium (6.5g), ribs (2.5g), vertebrae (3.9g), scapula (1.2g)
distal humerus (2.5g), proximal ulna (0.9g)
femoral shaft (34.4g), tibial plateau (2.2g), distal femur (4.2g)
Cremated human bone (262): 308.4g from a single adult (possibly same person as 260)
3x tooth roots including molar (0.8g) mandible (0.8g), left orbital (0.9g) numerous parietal etc. fragments (65.4g)
vertebrae (1.6g)
radial head (1.3g)
femoral shaft (21.3g), patella (2.9g)

Cremation burial 265
Circular pit, 0.3m diameter, 0.3m deep
Single vessel, fill 264, backfill 281. Common charcoal in fill 264
Urn 280: *c.*25% of a plain globular pot, mostly neck sherds. Medium hard fabric with abundant organic temper
Cremated human bone: 181.2g from a single adult
tooth roots (0.1g), left superior zygomatic (1.8g), left lateral orbit (0.9g)
ribs (1.6g), ilium (1.2g), cervical/upper thoracic vertebra (1.1g), tarsal (2.0g)
Metalwork: SF62: iron buckle fragments; two joining sections of loop (probably oval) and pin (the latter complete but detached) (Fig. 12). Length of pin 20mm

Cremation burial 266
Oval pit, 0.4m x 0.33m, 0.12m deep
No vessel, fill 267. Common charcoal
Cremated human bone: 10.9g (weathered)
vertebral epiphyseal facet (0.3g)
Quartz fragment: probably from a bead

Cremation burial 270
Oval pit, 0.44m x 0.36m, 0.12m deep
Single vessel, fill 268. Rare charcoal
Urn 269: *c.*60% of a plain globular vessel; rim missing. Hard sandy fabric
Cremated human bone: 63.5g
glenoid fossa (1.2g), vertebra (0.8g)

Cremation burial 272
Irregular pit, 0.4m x 0.34m, 0.08m deep. Disturbed
Single vessel, fill 271. Rare charcoal
Urn: *c.*50% of a plain globular vessel with slightly sagging base and slightly everted, rounded rim. Abundant organic temper
Cremated human bone: 236.7g from a single adult
petrous temporal (3.4g)
vertebrae (3.1g), right acromial clavicle (2.5g), rib (1.2g)
proximal hand phalanx (0.7g)
distal femur (7.8g), proximal femoral shaft (12.5g)

Cremation burial 277
Circular pit, 0.18m diameter, 0.04m deep. Very truncated
Single vessel, fill 279 (sample mislaid)
Urn 278: 31 base (slightly sagging) and lower body sherds. Abundant organic temper

Cemetery-related pit 285
Irregular pit, 0.93m x 0.73m, 0.11m deep
Fill 286
Cremated human bone: 87.2g

Cremation burial 287
Oval pit, 0.27m x 0.21m, 0.08m deep

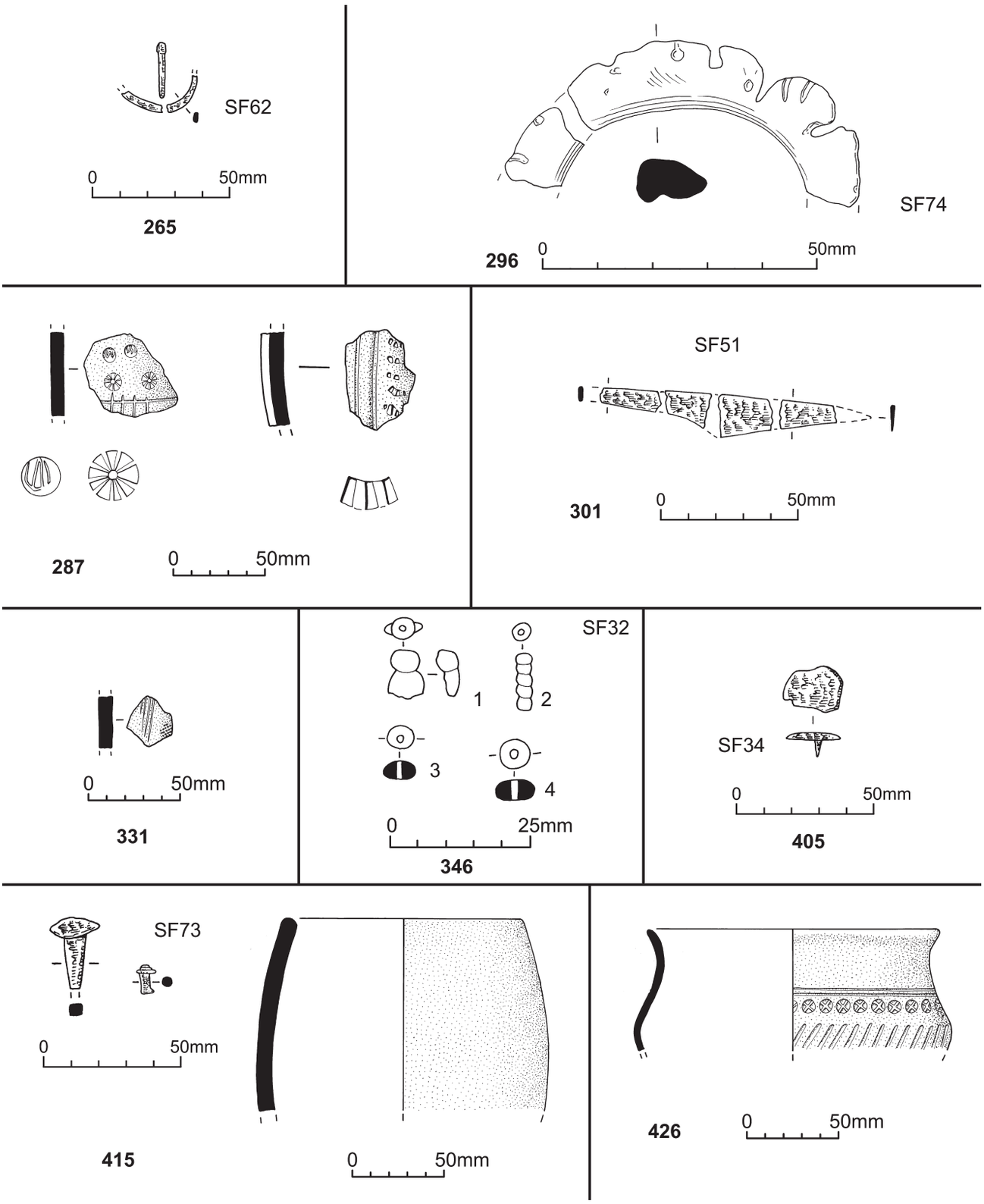

Figure 12 Pyre goods and urns from cremation burials 265, 287, 296, 301, 331, 346, 405, 415 and 426

Single vessel, fill 288

Urn: 44 sherds from a globular vessel with everted, flattened rim; Myres type II.6. Complete decorative scheme not possible to discern but includes concentric necklines infilled with rows of stamps (two stamps used: a rosette, Briscoe's type A5bi and one which cannot be easily classified, a V-shape within a circle, Briscoe's type M4 unclassified), beneath which is a series of long bosses, incised vertical lines and vertical rows of stamps (indistinct but probably Briscoe's type G2 segmented crescent) (Fig. 12). Medium hard fabric with abundant organic temper

Cremated human bone: 89.9g

vertebra (2.4g)

Cremation burial 290
Irregular pit, 0.38m x 0.3m, 0.08m deep
Single vessel, fill 289. Rare charcoal
Urn: 40 base (slightly sagging) and lower body sherds. One sherd has decoration comprising: two incised lines and a single simple dot stamp (Briscoe's type A1ai); not possible to reconstruct decorative scheme. Common organic temper
Cremated human bone: 283.5g
petrous temporal (2.8g)
odontoid process (1.1g), left first rib (2.3g)
distal ulna articular fragment (1.0g)
femoral shaft (18.0g), fibula shaft (0.9g)
Metalwork: SF69: iron knife or razor, in four pieces; both back and cutting edge curve, Böhner's type B. Cremated human bone adhering. Length (incomplete) 68mm, end of tang missing

Cremation burial 291
Circular pit, 0.24m diameter, 0.09m deep. Very truncated
Single vessel, fill 293. Rare charcoal
Urn 292: *c.*30% of a plain globular pot (lower body and base). Abundant organic temper
Cremated human bone: 295.7g from a single ?adult
left acromion (2.3g), vertebra (0.5g), rib (0.9g)
trochlear fragment(1.0g), humeral shaft (1.9g)
femoral shaft (21.9g), proximal tibia (0.7g)
Glass: SF58: two melted glass beads, translucent blue and crimson

Cemetery-related pit 294
Irregular pit, 1.6m x 0.9m, 0.4m deep
Fills 295, 300. Charcoal in fill 295
Pottery (295): 13 sherds from a globular vessel with flaring, rounded rim. Abundant organic temper with sparse quartz-sand. Four base/body sherds. Abraded. Medium soft sandy ware
Pottery (300): 9 body sherds. Fabric same as above, probably same pot
Cremated human bone: 2.1g

Cremation burial 296
Oval pit, 0.35m x 0.27m, 0.13m deep
Single vessel, fill 297
Urn: *c.*40% of a highly fragmented ?globular vessel (lower body and base). Decorated with incised lines and outline cross stamps (Briscoe's type B2bi) (Fig. 15)
Cremated human bone: 337.9g from a single juvenile
right and left petrous temporal (5.5g), mandible (0.8g), maxilla (1.8g) tooth crowns (unerupted) (1.3g)
vertebrae, including S5 (8.7g), acetabulum (4.5g), rib (1.2g)
Worked antler: SF74: five fragments from a purse ring; burnt; fitting roughly together to form *c.*50% of object. In poor condition; indications that outer edge may have been notched and possibly some decoration, ?dots, on surfaces (Fig. 12). Roughly pear-shaped in cross section, though one surface is flatter than the other. Max. external diam. *c.*85mm; internal diam. *c.*40mm; max. thickness 9mm

Cremation burial 298
Circular pit, 0.18m diameter, 0.03m deep. Very truncated
Single vessel, fill 299. Rare charcoal
Pottery: 50+ body sherds. Abundant organic temper
Cremated human bone: 31.1g
Glass: SF60: two melted beads, one opaque black, one translucent turquoise

Cremation burial 301
Irregular pit, 0.28m x 0.25m, 0.1m deep
Single vessel, fill 302. Rare charcoal
Pottery: 10 body sherds. Common organic temper and common quartz-sand
Cremated human bone: 192.3g
numerous teeth (0.9g)
2x mid hand phalanges (0.7g), radial head (0.1g), humeral shaft (1.8g)
odontoid peg (0.5g)
Metalwork: SF51: iron knife and iron amorphous lumps. In four joining sections (plus two amorphous pieces which may also be part of the knife or a separate object). In poor condition, probably Böhner's type A (both back and cutting edge incurve) (Fig. 12). Adhering to one side of the knife are blobs of melted glass and cremated human bone. Approx. length 115mm (tip missing). Plus iron plate fragments adhering to cremated bone
Glass: SF41: three melted glass beads, all black opaque glass with white opaque glass wavy lines. Plus three pieces of trailed glass which fit together. Dark translucent blue and opaque white. Length 32mm
Melted material/fuel ash: 1g

Cremation burial 305
Circular pit, 0.13m diameter, 0.07m deep
Two vessels, fill 303. Rare charcoal
Urn 304: *c.*25% of a plain globular pot with slightly sagging base, everted rounded rim. Hard fabric with common small quartz-sand, sparse large quartz inclusions, sparse organic temper
Accessory vessel: 50 base and lower body sherds. Medium soft fabric with abundant organic temper
Cremated human bone: 3g

Cremation burial 307
Oval pit, 0.35m x 0.25m, 0.10m deep. Disturbed
No vessel, fill 306
Cremated human bone: 1g

Cremation burial 309
Oval pit, 0.3m x 0.2m, 0.12m deep. Disturbed
Single vessel, fill 308. Rare charcoal
Urn: 61 base/body sherds. Abundant organic temper
Cremated human bone: 2.1g

Cremation burial 310
Irregular pit, 0.56m x 0.34m, 0.2m deep
Single vessel, fill 312
Urn 311: *c.*25% of a plain globular pot. One rim sherd, everted, slightly beaded. Abundant organic temper
Cremated human bone: 268g from a single adult
left parietal (with foramen) (10.8g), right and left petrous temporal (8.5g), right orbital (2.5g), maxillary (0.6g), anterior mandible (0.7g)
vertebrae (3.4g)

Cremation burial 313
Oval pit, 0.35m x 0.19m, 0.12m deep. Disturbed
Single vessel, fill 314
Urn: 110 base and lower body sherds of a plain globular vessel. Abundant organic temper
Cremated human bone: 322.5g
maxilla (1.4g), right petrous temporal (4.7g)
ribs (4.9g), sacrum (1.8g), scapula (1.2g)
humerus (16.5g), radial head (1.0g)

Cremation burial 319
Irregular pit, 0.4m x 0.4m, 0.1m deep. Disturbed
Single vessel, fill 317. Rare charcoal
Urn 318: *c.*25%, base and lower body sherds of a plain globular vessel. Abundant organic temper
Cremated human bone: 39.9g from a single ?adult
tooth root (0.1g), maxilla (0.2g)
right acromion (2.5g), acromial clavicle (2.5g), rib (0.3g)
proximal humerus (2.6g)

Cemetery-related pit 320
Rectilinear pit, 0.82m x 0.8m, 0.1m deep
Fill 321
Urn: body sherd. Abundant organic temper

Cremation burial 323
Circular pit, 0.16m diameter, 0.05m deep. Very truncated
Single vessel, fill 322. Rare charcoal
Urn: 2 body sherds. Abundant organic temper
Cremated human bone: 5.9g

Cremation burial 324
Oval pit, 0.33m x 0.26m, 0.07m deep
Single vessel, fill 326
Urn 325: 75 base/lower body sherds. Sagging. Abundant organic temper
Cremated human bone: trace

Cremation burial 331
Irregular pit, 0.6m x 0.5m, 0.1m deep
Single vessel, fill 332
Urn: 25 body sherds. Hard sandy fabric. Two sherds are decorated with incised lines and an indistinct grid stamp (Fig. 12)
Cremated human bone: 176.9g from a single adult ?male
occipital (4.2g)

Cemetery-related post-hole 334
Circular post-hole, 0.3m diameter, 0.35m deep
Fill 333. Rare charcoal
Pottery: body sherd. Common organic temper

Cremation burial 335
Irregular pit, 0.32m x 0.29m, 0.16m deep
Single vessel, fill 337. Rare charcoal
Urn 336: *c.*50% of a thin-walled plain globular vessel; base, body and rim sherds (slightly flaring, rounded). Abundant organic and sparse large quartzite inclusions
Cremated human bone: 217.7g
tooth root (0.1g)
distal ulna shaft (1.5g)
Glass: SF49: beads; end of cylindrical bead, two fragments; terracotta red with opaque yellow and translucent green glass marbling (the fragments are part of SF38 in burial 478). Melted opaque black bead and fragments of quartz or rock crystal. ?Part of a shattered bead. Max. length 5mm

Cemetery-related pit 338
Circular pit, 1.45m diameter, 0.14m deep
Fill 339
Pottery: base sherd. Abundant organic temper

Cremation burial 340
Circular pit, 0.3m diameter, 0.04m deep
Single vessel, fill 341
Urn: 55 base and lower body sherds. Abundant organic temper
Cremated human bone: 4.6g (weathered)

Cremation burial 346
Irregular pit, 0.38m x 0.29m, 0.19m deep
Single vessel, fill 345. Rare charcoal
Urn: *c.*50% of a plain globular vessel. Abundant organic temper
Cremated human bone: 160.4g
mandible (1.4g), maxilla (0.6g)
vertebrae including thoracic/lumbar body (4.4g), rib head (0.2g)
trochlear fragment (1.5g), ulna shaft (3.6g), pisiform (0.5g), carpal (0.5g)
femoral shaft including proximal (12.1g), right proximal metatarsal (1.0g)
Glass: SF32: beads (Fig. 12), segmented gold-in-glass bead; five joined segments, one end slightly damaged; length 10mm; diam. 3mm. Fragment of segmented silver-in-glass bead; two joined segments, one end melted, diam. 5mm. Tiny globular clear glass beads, two; these are most likely to be broken off segments from a segmented bead; one in particular has a ragged edge; all diam. 5mm. Annular clear glass bead with opaque white trails; diam. 6.5mm
SF47: melted beads; five fragments; blue, pale green
Worked bone: SF48: bead/ring, in five pieces; annular, incised decoration on external surface. External diam. 19mm; projected internal diam. 15mm

Cremation burial 352
Oval pit, 0.2m x 0.12m, 0.03m deep. Very truncated
Two vessels, fill 351
Urn: 23 Body sherds. Common organic temper
Accessory vessel: 2 body sherds (burnt). Common organic temper
Cremated human bone: 4.9g (abraded/weathered)

Cremation burial 362
Oval pit, 0.35m x 0.26m, 0.08m deep
Single vessel, fill 364. Occasional charcoal
Urn 363: 50 base and lower body sherds. Abundant organic temper
Cremated human bone: 29.8g from a single infant
2x vertebra (0.4g)
distal femur (unfused) (1.1g), cuboid (0.9g), distal tibial epiphysis (0.1g)

Cremation burial 366
Circular pit, 0.22m diameter, 0.12m deep
No vessel, fill 367. Rare charcoal
Cremated human bone: 105.3g from a single adult
anterior tooth root (0.2g)
vertebral arch including lower thoracic inferior facet (1.5g) and upper thoracic spinous process (0.2g) total (3.9g), ribs (1.0g)
humeral shaft (3.6g), forearm (0.9g)
fibula shaft (2.4g), metatarsal shaft (0.2g), proximal phalanx proximal (0.4g)
Glass: SF76: fragment of amethyst-coloured glass. Diamond-shaped glass fragment; two edges chipped. Possibly cut to resemble an amethyst stone and may have been set in a saucer brooch or buckle plate. Dimensions 7mm x 6mm

Possible burial? pit 369
Oval pit, 0.36m x 0.18m, 0.06m deep. Disturbed
Fill 368
Pottery: 3 body sherds. Common organic temper

Cremation burial 370
Irregular pit, 0.39m x 0.29m, 0.16m deep
Single vessel, fill 372. Rare charcoal
Urn 371: *c.*75% of a plain globular vessel with everted, rounded rim. Abundant organic temper. Rim diam. 95mm
Cremated human bone: 55.2g
femoral fragments including distal articular surface (4.4g) tibia (1.8g)

Cremation burial 373
Irregular pit, 0.4m x 0.34m, 0.1m deep. Disturbed
Single vessel, fill 374. Rare charcoal
Urn: 45 base sherds, abundant organic temper
Cremated human bone: 245.1g from a single ?adult
teeth including ?PM root (0.7g)
vertebrae (1.3g)
humeral shaft (5.3g)
femoral shaft (7.4g), tibial shaft (8.5g)
Metalwork: SF63: iron rivet with worked bone fragment; rivet is in position passing through a section of bone plate; square retaining plate in position; shaft detached but complete. Length 14mm; max. width of head 5mm. Also very tiny iron rod fragments, possibly part of a chatelaine chain.

Cremation burial 375
Circular pit, 0.2m diameter, 0.1m deep
Single vessel, fill 376. Rare charcoal
Urn: *c.*25%. Base, abundant organic temper
Cremated human bone: 126.7g (abraded/weathered), fragmented
vertebra (0.6g)
femoral shaft (20.1g), tibial shaft (12.5g), patella (2.0g)

Cremation burial 378
Oval pit, 0.72m x 0.62m, 0.17m deep
Single vessel, urn fill 377, backfill 383. Rare charcoal in fill 377
Urn: 23 base/lower body sherds. Hard fabric with abundant small quartz-sand and sparse organic temper
Cremated human bone: 44.3g from a single ?adult
fragment of tooth crown (0.1g)
vertebrae (1.3g)
left radial head (2.2g)

Cremation burial 382
Circular pit, 0.26m diameter, 0.15m deep
Two vessels, urn fill 380, backfill 379. Rare charcoal in fill 380
Urn 381: plain globular vessel, *c.*40%. Medium soft fabric with abundant organic temper
Accessory vessel: 2 body sherds. Abraded. Sparse organic temper
Cremated human bone: 493.8g from a single adult (35–39 years) ?male
internal anterior mandible (1.1g), right posterior mandible (M3 socket) (1.3g), 3x teeth including mandibular right PM1 (0.5g), left mastoid process (3.5g), left zygomatic arch (0.9g), right external auditory meatus (1.6g)
ribs (5.7g), vertebral body (4.5g), neural arch (4.7g), cervical vertebrae (?3,4,5?) (4.6g), right sternal clavicle (fused) (1.3g), acetabulum (3.8g), right superior auricular surface (1.9g), left ilium and auricular surface (10.4g)
3x proximal hand phalanges (1.8g), right capitate (0.8g), humeral shaft (10.9g), radius/ulna shaft (18.0g), carpal (1.0g)
femoral shaft (62.6g), tibia shaft (23.7g), first metatarsal head (7.1g), superior talus (7.1g), navicular (4.9g)
Metalwork: SF57: iron nails (at least 2), one complete, square in cross section, length 30mm

Cremation burial 384
Circular pit, 0.3m diameter, 0.06m deep. Very truncated
Single vessel, fill 385
Pottery and cremated human bone: noted on site (sieved sample mislaid)

Cremation burial 387
Circular pit, 0.25m diameter, 0.08m deep
Single vessel, fill 386. Rare charcoal
Urn: base and body sherds, *c.*50% of a plain globular pot with slight footring base. Common organic temper
Cremated human bone: 200.8g from a single ?adult, fragmented
tooth root (<0.1g)
acromion (1.2g), rib (1.1g), vertebrae (3.2g) including right C2 (1.3g)
distal hand phalanx (0.1g), metacarpal head (0.6g)
femur (37.7g), right superior calcaneus (3.2g), metatarsal head (1.2g), distal phalanx (<0.1g)
Metalwork: SF33: iron disc-headed rivet; ?from a shield board; 5 fragments which join together to form head, shaft broken off. Max. diam. of head 20mm
SF70: iron slag; 2 amorphous lumps

Cremation burial 388
Circular pit, 0.16m diameter, 0.05m deep
Single vessel, fill 389
Pottery: 20+ sherds, common organic temper
Cremated human bone: 30.1g (abraded/weathered)

Cremation burial 390
Circular pit, 0.33m diameter, 0.13m deep
Single vessel, fill 392. Rare charcoal
Urn 391: *c.*60% base (flat) and lower body or a large ?globular vessel
Cremated human bone: 592g from a single adult
teeth including mandibular incisor (0.8g), right superior orbit (1.5g), left mandibular condyle (1.1g)
scapula blade (2.2g), glenoid (2.0g), neural arch (4.9g), ribs (4.0g), ilium (3.9g), acetabulum (1.8g), vertebral body (10.9g), odontoid peg (0.6g)
left lunate (1.3g), left capitate (1.8g), phalanges (0.4g), proximal phalanx (1.6g), mid phalanx (0.6g), humeral shaft (10.5g), humeral head (5.9g), distal ulna (2.2g), radius/ulna shaft (9.3g)
2x femoral head (17.9g), tibial shaft (36.9g), femoral shaft (70.0g), metatarsal shaft (1.1g)
Metalwork: SF75: iron buckle pin fragment; hinge missing. Length (incomplete) 11mm

Cremation burial 399
Circular pit, 0.22m diameter, 0.16m deep
Single vessel, fill 401. Rare charcoal
Urn 400: *c.*30% of a thin-walled globular pot (base and lower body). Abundant organic temper
Cremated human bone: 425.4g from a single adult (mature or older)
right lateral orbit (2.9g), mandibular ramus (0.8g), teeth (0.1g)
vertebrae (15.7g), rib (1.1g), acetabulum (2.5g), left auricular surface (4.2g)
distal femoral articular surface (8.7g), femoral shaft (48.5g), tibial shaft (12.3g), distal foot phalanx (0.6g)

Cremation burial 405
Circular pit, 0.28m diameter, 0.1m deep
Single vessel, urn fill 403, backfill 402. Rare charcoal in fill 403
Urn 404: *c.25%* (base and lower body). Slightly sagging base. Abundant organic temper
Cremated human bone: 93.3g from a single ?adult

teeth (0.1g)
glenoid fossa (2.2g)
humeral shaft (1.6g) radial shaft (1.4g)
metatarsal shaft (0.8g), femoral shaft (19.2g)

Metalwork: SF34: iron disc-headed rivet, ?from a shield board (Fig. 12). In poor condition. Max diam of head 21mm; max. length of remaining shaft 7mm

SF35: iron disc-headed rivet. As above. No shaft. Max. diam. of head 21mm

Cremation burial 406

Circular pit, 0.17m diameter, 0.04m deep
Single vessel, fill 407

Urn: 84 body sherds in fabric with abundant organic temper

Cremated human bone: 3.5g

Cremation burial 408

Oval pit, 0.3m x 0.28m, 0.06m deep
Single vessel, fill 395. Rare charcoal

Urn 396: *c.*15% of a plain vessel

Cremated human bone: 133.7g from a single ?adult
iliac/auricular surface (2.9g), S1(4.6g)
distal femur (3.4g)

Cremation burial 409

Circular pit, 0.2m diameter, 0.05m deep
Two vessels, fill 397. Rare charcoal

Urn 398: *c.*25% of a vessel with footring base. Medium hard sandy fabric with sparse organic temper

Accessory vessel: Four body sherds in a flint-tempered fabric with abundant quartz-sand

Cremated human bone: 77.2g
left lateral orbit (1.3g)

Glass: SF46: annular opaque black bead, heat distorted

Cremation burial 410

Oval pit, 0.43m x 0.28m, 0.11m deep
Single vessel, fill 412. Frequent charcoal

Urn 411: *c.*60% of a plain globular vessel with flattened rim. Abundant organic temper

Cremated human bone: 280.2g from a single ?adult
teeth (0.3g), right petrous temporal (3.6g)
scapula (3.7g), ilium (2.6g), vertebrae (3.7g)
carpal (1.0g), radial head (0.4g), humeral shaft (8.4g), radial/ulna shaft (7.9g)
femoral shaft (12.7g), fibula shaft (1.5g), tibial shaft (2.1g)

Quartz fragments: from a ?bead

Cremation burial 413

Irregular pit, 0.23m x 0.22m, 0.09m deep
Single vessel, fill 414. Rare charcoal

Pottery: tiny fragments of a vessel with common organic temper

Cremated human bone: 91.5g from a single ?adult
vertebrae (0.8g)

Cremation burial 415

Circular pit, 0.24m diameter, 0.17m deep
Single vessel, fill 417. Common charcoal

Urn 416: *c.*75% of a globular bowl with upright, rounded rim (Fig. 12). Common organic temper. Rim diam. 140mm

Cremated bone: 24.8g from a single human neonate, or rabbit/hare

Metalwork: SF73: large iron rivet or nail in poor condition (tip missing) (Fig. 12). Possibly circular-headed. Large sections of mineralised wood adhering. Length 25mm, max. diam of head 18mm. Also small iron rivet, complete with square retaining plate (badly chipped) (Fig. 12). Length of rivet shaft 8mm

Glass: pale green glass bead, melted

Cremation burial 420

Irregular pit, 0.19m x 0.14m, 0.05m deep
Single vessel, fill 418

Urn 419: 20 base and body sherds. Abundant organic temper

Cremated human bone: 4g

Cremation burial 423

Oval pit, 0.3m x 0.23m, 0.06m deep
Single vessel, fill 421. Occasional charcoal

Urn 422: *c.*25%, base and body sherds. Abundant organic temper

Cremated human bone: 500.3g from a single adult
left anterior maxilla (all teeth lost pm) (2.5g), left lateral orbit (0.9g), petrous temporal (3.7g)
ilium including eroded auricular surface (14.6g), ribs (5.9g), vertebrae (17.7g) including cervical body (1.8g), glenoid (1.5g)
humeral shaft (8.1g), humeral head (2.9g), metacarpal shaft (0.7g), radius/ulna shaft (13.3g)
femoral shaft (29.0g), distal femoral articulation (2.8g), tibial shaft (9.6g), distal tibia talar articulation (3.1g), 5x metatarsal heads (3.4g), metatarsal head (1.4g), superior talus (3.1g), metatarsal shaft (0.4g)

Animal bone (burnt): sheep rib (0.7g)

Cremation burial 425

Oval pit, 0.19m x 0.16m, 0.04m deep
Single vessel, fill 424. Rare charcoal

Urn: base and body sherds (less than 25% of vessel). Abundant organic temper

Cremated human bone: 16.9g from a single neonate
vertebrae including C1 (0.7g)

Cremation burial 426

Oval pit, 0.29m x 0.21m, 0.13m deep. Disturbed
Three vessels, fill 427. Rare charcoal

Urn: 25% of a biconical bowl with everted, rounded rim; Myres type II.7. Decorated with two incised concentric necklines, underneath which is a row of cruciform circle stamps (one stamp used Briscoe's A4aii), beneath which is a panel of diagonally slashed lines (Fig. 12). Abundant organic temper

Urn: 18 sherds including rim (slightly everted, rounded) from a decorated urn. Decorative scheme includes concentric necklines and a row of stamped circles (Briscoe's type A1ai). Hard sandy fabric (abundant small to medium quartz-sand)

Accessory vessel: body sherd, abraded. Sandy micaceous fabric

Cremated human bone: 8.4g
teeth (0.2g)
rib (0.3g)

Glass: SF36: bead, annular, opaque green glass, diam. 9mm

Cremation burial 428

Circular pit, 0.25m diameter, 0.05m deep
Single vessel, fill 429. Rare charcoal

Urn: 40 body sherds. Abundant organic temper

Cremated human bone: 17.6g from a single neonate/infant
ribs (0.3g)

Cremation burial 430
Oval pit, 0.33m x 0.27m, 0.12m deep
Single vessel, fill 432. Rare charcoal
Urn 431*: c.*30% of a plain ?biconical pot with footring base. Abundant organic temper
Cremated human bone: 89.3g
vertebra (0.5g)
femoral shaft (14.9g), fibula (0.6g)

Cremation burial 433
Circular pit, 0.25m diameter, 0.14m deep. Disturbed
Single vessel, fill 434
Urn: *c.*25% of a globular vessel. Base/lower body sherds. Abundant organic temper
Cremated human bone: 91.3g from a single ?adult
petrous temporal (3.7g)
ribs (2.5g)
humeral shaft (2.5g), radius/ulna (12.9g)
femoral shaft (15.2g)

Cremation burial 435
Circular pit, 0.25m diameter, 0.12m deep
Single vessel, fill 437. Common charcoal
Urn 436: *c.*50% (base and lower body) of a plain globular vessel, rim missing. Abundant organic temper
Cremated human bone: 158.1g from a single adult
vertebra (1.3g), acetabulum (1.4g), auricular surface (0.9g), rib (0.6g)
humeral head (2.3g), distal phalanx (0.4g)
femoral shaft (21.0g), tibial shaft (4.6g), proximal metatarsal (0.6g)

Cremation burial 438
Oval pit, 0.39m x 0.29m, 0.10m deep
Single vessel, fill 440. Common charcoal
Urn 439: *c.*50% of a ?biconical vessel with everted, rounded rim; Myres' type II.1. Decorated with incised concentric necklines enclosing two rows of stamps (a row of cruciform circles Briscoe's type A4aii, and a row of grid circles type A3aii) (Fig. 13). Hard fabric with common organic temper and common small quartz-sand. Outer surface smoothed
Cremated human bone: 85.5g
rib (1.1g)
femoral shaft (11.4g)
Metalwork: SF68: iron buckle loop fragments; two joining sections from an oval or D-shaped buckle. Oval in cross section. Max. thickness 5mm
Baked clay: 1g

Cremation burial 441
Irregular pit, 0.49m x 0.39m, 0.11m deep
Two vessels, urn fill 444, backfill 442
Urn 443: *c.*75% of a large sub-biconical vessel with slightly sagging base; Myres' type II.7. Decoration (indistinct because of the coarseness of the outer surface) comprising incised concentric necklines enclosing a row of rosette stamps (one stamp used Briscoe's type A5bi), underneath which are incised lines forming pendant triangles which are infilled with stamps (same as above), there are multiple examples of a circular grid stamp (Briscoe's type A3aii) (Fig. 13). Hard fabric with abundant small to large quartz-sand.
Accessory vessel: 30+ abraded sherds, some showing indistinct decoration ?concentric necklines. Includes rim sherds (everted, rounded). Hard, sandy fabric
Cremated human bone: 1147.9g from a single adult ?male
(442) ribs (1.9g), vertebrae (1.7g)
humeral shaft (6.7g)
femoral shaft (8.2g), sesamoid (0.2g)
(444) right and left petrous temporal (11.4g), occipital (4.0g), occipital condyle (1.0g), parietal (29.4g), right and left mastoid processes (4.9g), tooth roots (0.6g), mandible (5.1g), mandibular condyle (2.3g)
ribs (14.1g), vertebrae (all levels) (36.7g), glenoid (0.8g), ilium with acetabulum and auricular surface (67.2g)
humeral shaft (32.4g), humeral head (12.4g), distal humeral shaft (5.0g), trochlear fragments (3.0g), radial head (2.7g), radius/ulna shaft (17.9g), mid hand phalanx (1.2g), distal hand phalanx (0.1g)
femoral shaft (168.9g), distal femur (7.7g), tibial shaft (33.2g), tibial plateau (9.3g), talus (6.8g), metatarsal head and proximal fragments (3.8g), proximal foot phalanx (0.7g)
Animal bone: possible pig, not burnt (2g)
Baked clay: 1g

Cremation burial 445
Oval pit, 0.34m x 0.27m, 0.14m deep
Single vessel, fill 447. Moderate charcoal
Urn 446: *c.*75% of a plain globular vessel included one small rim sherd (everted, rounded). Abundant organic temper
Cremated human bone: 415.2g from a single adult
left zygomatic (1.8g)
ilium with small areas of auricular surface (26.2g), vertebrae (2.3g), odontoid peg (1.2g), glenoid (1.1g)
humeral head (9.8g), humeral shaft (5.6g), metacarpal shaft (2.5g), trochlear fragment (0.8g)
femoral shaft (72.0g), tibial shaft (10.1g), distal femoral articulation (3.2g), patella (4.5g), right proximal metatarsal (2.4g), metatarsal head (0.8g), metatarsal shafts (1.9g)

Cremation burial 450
Oval pit, 0.32m x 0.2m, 0.09m deep
Single vessel, fill 451
Urn: 30+ body sherds. Abundant organic temper
Cremated human bone: 90.4g
tooth roots (0.3g)
femoral shaft (14.5g), tibial shaft (3.8g)

Cremation burial 452
Oval pit, 0.28m x 0.23m, 0.11m deep
Single vessel, fill 454. Common charcoal
Urn 453: *c.*60% of a sub-biconical pot. Uneven, slightly everted, rounded rim. Common organic temper and common quartz-sand
Cremated human bone: 147.3g from a single adult
auricular surface (2.5g), ribs (1.5g), distal ulna (2.0g)
Metalwork: SF59: iron disc-headed rivet; shaft broken off; max. diam. of head 15mm
Glass: fragments, at least 20; melted, natural pale green in colour; beads or vessel glass. Wt. 2g

Cremation burial 457
Irregular pit, 0.44m x 0.34m, 0.11m deep
Single vessel, two fills 455, 456
Urn: 35 body sherds. Abundant organic temper
Cremated human bone: 63.1g
rib (1.0g), vertebrae (1.6g), sciatic notch (2.9g)

Possible burial? spread 458
Pottery: 10 body sherds from one vessel. Medium hard fabric with common organic temper and sparse medium to large quartz-sand

Cremation burial 461
Oval pit, 0.29m x 0.27m, 0.08m deep
Single vessel, urn fill 459, backfill 468. Moderate charcoal in fill 459

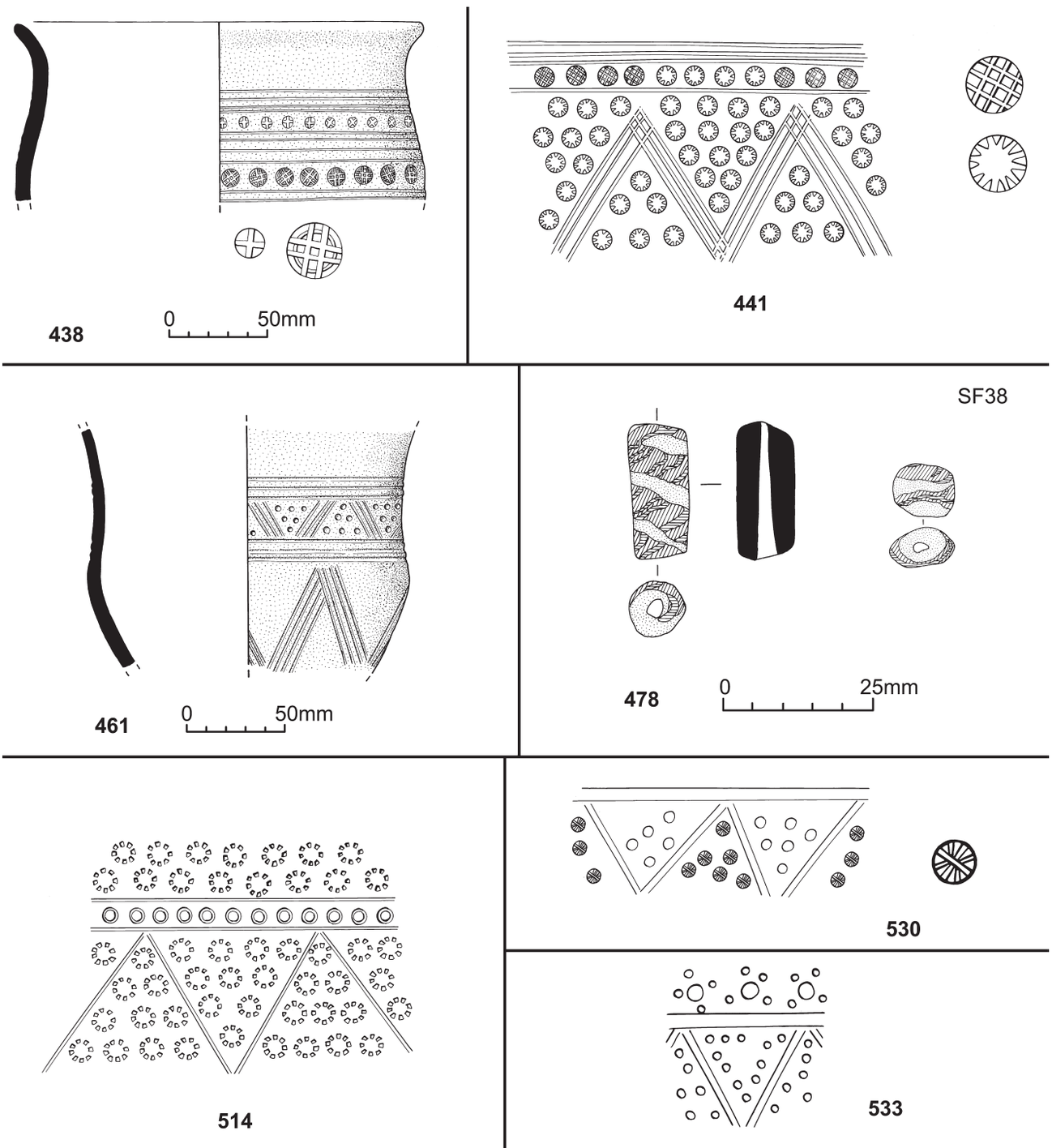

Figure 13 Pyre goods and urns from cremation burials 438, 461 and 478, decorative scheme from cremation burials 441, 514, 530 and 533

Urn 460: *c.*50% of a globular or sub-biconical pot; Myres' type II.7. Decorated with incised concentric lines enclosing a panel of diagonally opposed lines infilled with stamps (one stamp used, Briscoe's type A1ai, plain single circles); underneath is a series of incised opposed curving diagonal lines 'hangende bogen' (Fig. 13). Hard fabric with abundant small to medium quartz-sand

Cremated human bone: 614.1g from a single adult (mature to older)
right superior zygomatic (1.5g)
ribs (1.2g), vertebrae (5.5g) including cervical body (1.3g), ilium (2.9g), acromial clavicle (1.4g)
humeral shaft (15.8g), radius/ulna shaft (12.4g), proximal phalanx distal fragment (0.6g)
femoral shaft (81.5g), tibial shaft (36.2g), proximal metatarsal shaft (1.5g)

Cremation burial 462

Irregular pit, 0.33m x 0.3m, 0.09m deep. Disturbed
Single vessel, fill 463. Moderate charcoal

Urn: 70 base and lower body sherds. Slight footring. Abundant organic temper

Cremated human bone: 1.4g (weathered)

Cremation burial 467
Circular pit, 0.4m diameter, 0.1m deep
Single vessel, urn fill 465, backfill 464. Rare charcoal in fill 465
Urn 466: *c.*50% plain globular vessel with common organic temper
Cremated human bone: 409g from a single adult
2x anterior tooth roots (0.2g), maxillary M3 (0.5g)
vertebrae (7.1g), ribs (1.1g), ilium (3.9g), coracoid (1.2g)
humeral shaft (97.6g), trochlear fragment (1.8g), 3x proximal hand phalanges (1.0g)
femoral shaft (31.4g), metatarsal head (1.7g)
Glass: SF37: 10 globules of melted vessel glass; pale translucent green. Wt. 26g
Baked clay: 2g

Cremation burial 469
Oval pit, 0.45m x 0.3m, 0.05m deep. Very truncated
No vessel, fill 470
Cremated human bone: 4.1g (weathered)

Cremation burial 471
Oval pit, 0.26m x 0.21m, 0.1m deep. Compacted
Single vessel, fill 472. Common charcoal
Urn: 28 lower body sherds. Sandy fabric with common small quartz-sand, sparse large quartz-sand
Cremated human bone: 416.1g from a single adult
2x mandible (1.8g)
vertebrae (7.9g), ilium including acetabular rim (5.0g),
humeral shaft (14.7g), radial shaft (10.6g), fragments of phalanx x2 (0.5g)
femoral shaft (39.5g) tibial shaft (17.3g), metatarsal shaft (0.6g), right lateral cuboid (2.9g)
Metalwork: SF71: iron fragments, probably from a toilet set, comprising: ?tip of a knife blade and two other possible sections of tang; rod (broken off at both ends) ?section of chatelaine chain

Cremation burial 473
Circular pit, 0.15m diameter, 0.02m deep. Very truncated
Single vessel, fill 474
Urn: 30 sherds of a footring base. Abundant small quartz-sand
Cremated human bone: 13.8g (eroded/weathered)

Cremation burial 475
Circular pit, 0.19m diameter, 0.05m deep. Very truncated
Single vessel, fill 477. Rare charcoal
Urn 476: *c.*25% of a globular vessel. Abundant organic temper
Cremated human bone: 280.9g from a single ?adult
odontoid process (1.2g), scapula (1.8g)
humeral shaft (6.8g)
femoral shaft (60.1g), tibial shaft (9.6g), distal phalanx (0.1g)

Cremation burial 478
Irregular pit, 0.27m x 0.2m, 0.11m deep
No vessel, fill 479
Cremated human bone: noted on site (sieved sample mislaid)
Glass: SF38: two beads (Fig. 13). Cylindrical terracotta red bead with translucent green and opaque yellow marbling, unburnt. Guido's type 8xixb; length 24mm; diam. 10mm. (The bead fragments from 337 and 492 cross-fit, making a complete bead). Melted (distorted) bun-shaped terracotta red bead with translucent green and opaque yellow marbling, probably Guido's type xviiib. The finds from this burial appear to have been dispersed during post-excavation work

Cremation burial 480
Oval pit, 0.29m x 0.15m, 0.07m deep
Single vessel, fill 481. Rare charcoal
Urn: *c.*15% of a globular vessel. Abundant organic temper
Cremated human bone: 23.9g from a single infant/neonate
vertebrae including C1 arch

Cremation burial 485
Circular pit, 0.3m diameter, 0.14m deep
Two vessels, urn (484) fill 483, backfill 482
Urn 484: base and body sherds, c.80% of a plain globular pot (no rim). Abundant organic temper
Accessory vessel: 15 neck and body sherds from a carinated bowl; decorated with at least 5 incised concentric necklines. Hard fabric with common organic temper
Cremated human bone: 827.9g from a single adult ?male
occipital fragment with nuchal crest (3.3g), teeth (0.2g)
vertebrae (26.2g), including cervical body (2.1g), ischial tuberosity (3.1g), ilium (8.6g)
2x metacarpal shafts (1.6g), humeral shaft (18.1g), radial head (0.3g), left capitulum (2.7g), radius and ulna shafts (18.0g)
femoral shaft (77.2g), tibial shaft (27.9g), fibula shaft (94.4g), patella (2.1g), tarsal (3.5g), metatarsal head (2.9g), metatarsal head (1.0g), left calcaneus (3.7g)

Cremation burial 486
Irregular pit, 0.25m x 0.19m, 0.06m deep
Single vessel, fill 488
Urn 487: Base and body sherds, *c.*25% from a plain ?globular vessel. Abundant organic temper
Cremated human bone: 85.5g
vertebra (1.0g)

Cremation burial 489
Oval, 0.36m x 0.33m, 0.26m deep
Single vessel, urn fill 491, backfill 492
Urn 490: *c.*50% of a plain globular vessel (some upper and some lower body and base), rim slightly everted, rounded. Abundant organic temper
Cremated human bone: 408.1g from a single adult
left mandibular condyle (1.4g), anterior tooth (0.2g)
vertebrae (11.4g), including odontoid peg (1.9g), ilium (64g), including acetabular/auricular (5.2g)
humeral shaft (15.7g), humeral head (7.2g), right proximal ulna with articular surface (2 conjoining fragments (7.6g), radial head (1.0g), left distal humerus (4.2g)
femoral shaft (67.1g), femoral head (5.2g)
Glass: SF43: bead fragment, end of a cylindrical terracotta red bead with marvered opaque yellow and translucent green decoration (the fragment is part of SF38 in burial 478)

Cemetery-related post-hole 498
Post-hole, 0.13m diameter, 0.11m deep
Fill 497
Pottery: 10 base/body sherds of medium hard fabric with common organic temper

Cremation burial 501
Circular pit, 0.26m diameter, 0.07m deep
Single vessel, fill 502
Pottery: 14 body sherds. Abundant organic temper
Cremated human bone: 260g from a single ?adult
left petrous temporal/mastoid (6.6g)
vertebrae (5.0g), ilium (2.0g)

Metalwork: copper alloy globule; small, amorphous
Glass: SF50: at least two melted glass beads, fused together with cremated human bone adhering; one is translucent blue, annular; the other is possibly blue and opaque white

Cremation burial 504
Oval pit, 0.31m diameter, 0.24m deep
Single vessel, fill 506. Rare charcoal
Urn 505: *c.*75% of a large plain hollow-necked globular vessel including rim (everted, rounded), base and body sherds. Abundant organic temper
Cremated human bone: 704.6g from a single ?adult
canine root (0.3g), mandibular ramus (1.9g)
left acromial clavicle (5.7g), ilium with auricular surface margin (13.4g), vertebrae, all levels including C2 arch (38.5g), ribs (3.3g)
humeral shaft (31g), humeral head (2.2g), radius/ulna shafts (14.0g), radius shaft (5.6g), right proximal ulna shaft (10.4g)
femoral shaft (14.1g), femoral head tibial shaft (34.6g), femoral head (8.9g), superior talus (2.1g)

Cremation burial 507
Oval pit, 0.27m x 0.19m, 0.07m deep. Disturbed
Single vessel, fill 508. Rare charcoal
Pottery: 20 body sherds. Abundant organic temper
Cremated human bone: 79.5g
vertebrae (2.0g)

Cremation burial 511
Oval pit, 0.22m x 0.13m, 0.08m deep
Single vessel, fill 509. Rare charcoal
Urn 510: *c.*25%, base and lower body sherds from a plain vessel. Outer surface rough with large voids, inner smoothed.
Cremated human bone: 100g
tooth (0.2g)
vertebrae (1.7g)
humeral head (3.1g)

Cremation burial 512
Irregular pit, 0.34m x 0.3m, 0.08m deep. Disturbed
Single vessel, fill 513. Rare charcoal
Pottery: 10 body sherds. Abundant organic temper
Cremated human bone: 99.2g

Cremation burial 514
Circular pit, 0.23m diameter, 0.08m deep
Single vessel, fill 516. Rare charcoal
Urn 515: *c.*25% of a ?globular vessel, one small rim sherd (slightly everted, rounded) decorated with incised lines and stamps, not possible to discern entire scheme; two stamps used: a simple circle (Briscoe's type A1bi) and a rosette (A5ai) (Fig. 13)
Cremated human bone: 373.3g
large fragments of right parietal (7.6g), petrous temporal (3.2g), maxilla (0.8g), canine/PM root (0.4g)
vertebrae (7.4g), rib (0.4g), acromion (2.4g)
femoral shaft (26.3g), tibial shaft (9.6g)

Cremation burial 519
Oval pit, 0.4m x 0.32m, 0.14m deep
Single vessel, fill 517. Very rare charcoal
Urn 518: *c.*40%, base and body sherds. Abundant organic temper
Cremated human bone: 402.4g
2x mandibular fragments — anterior, no teeth present (2.5g)
vertebrae (13.6g), ribs (2.6g)
femoral shaft (46.1g), tibial shaft (7.6g)

Glass: SF67: globule of several melted glass beads fused together; colours include opaque terracotta red, opaque black and translucent green glass; cremated human bone incorporated

Cemetery-related pit 520
Oval pit, 0.68m x 0.46m, 0.2m deep
Fills 521, 522. Rare charcoal in fill 521
Glass: SF54: pale natural green glass globules, ?vessel or fused beads

Possible burial? spread 523
Spread, 0.2m x 0.3m, 0.03m deep
Pottery: 3 base/body sherds; medium hard sandy fabric

Cremation burial 530
Circular pit, 0.33m diameter, 0.33m deep
Single vessel, fill 532. Common charcoal
Urn 531: *c.*75% of a ?biconical pot; Myres type II.2. Decorated with incised lines demarcating triangular panels infilled with stamps; two stamps used, simple dots (Briscoe's type A1ai) and rosettes (type A5ai) (Fig. 13). Abundant organic temper, common quartz-sand
Cremated human bone: 684.3g from a single adult
petrous temporal (4.0g), teeth (3.0g), including 8x anterior roots (0.9g) 5x anterior crown (0.5g) upper left PM (0.4g), 2x molar roots (0.5g) and lower right M2 (0.5g)
vertebrae (67.3g), including 3x lumbar body (14.6g), S3? body (4.3g), lower C vertebra body (2.7g), ribs (8.4g), ilium with partial acetabulum (24.4g)
humeral shaft (14.0g), radial shaft including tuberosity (3.6g), 2x mid phalanx heads (0.5g), 2x distal phalanges (0.5g), metacarpal head (0.6g)
femoral shaft (31.5g), tibial shaft (8.8g), fibula shaft (4.4g), femoral head (4.4g), tibial plateau (4.2g), metatarsal head (1.3g)
Metalwork: SF72: iron chatelaine or pin fragments, 8 sections, including looped terminal; not possible to determine original length. Iron amorphous lump; identification not possible, possibly part of above

Cremation burial 533
Circular pit, 0.3m diameter, 0.14m deep
Single vessel, fill 535
Urn 534: *c.*50% of a ?globular vessel with everted, rounded rim; Myres' type II.3. Decorated with a scheme of incised lines and dots (not possible to reconstruct entire scheme); appears to have large indented ovals surrounded by smaller dots (Fig. 13). Fabric is very friable with abundant organic temper
Cremated human bone: 472.6g from a single ?adult
anterior teeth (0.7g)
vertebrae (7.0g), ribs (2.2g), ilium with small area of auricular surface (6.6g)
metatarsal head (0.6g)

Cremation burial 536
Oval pit, 0.5m x 0.4m, 0.16m deep
Single vessel, urn fill 554, backfill 555. Rare charcoal in fill 554
Urn 537: 90% of a large globular urn with everted, rounded rim (almost complete); Myres' type II.7. Decorated with two concentric necklines underneath which is a decorative panel of alternating grid diamond stamps (Briscoe's type F2bi) and double dots (Briscoe's type A1ai); beneath this is a second panel of cruciform circle stamps (Briscoe's type A4ai) demarcated by two incised concentric lines above and two below; finally,

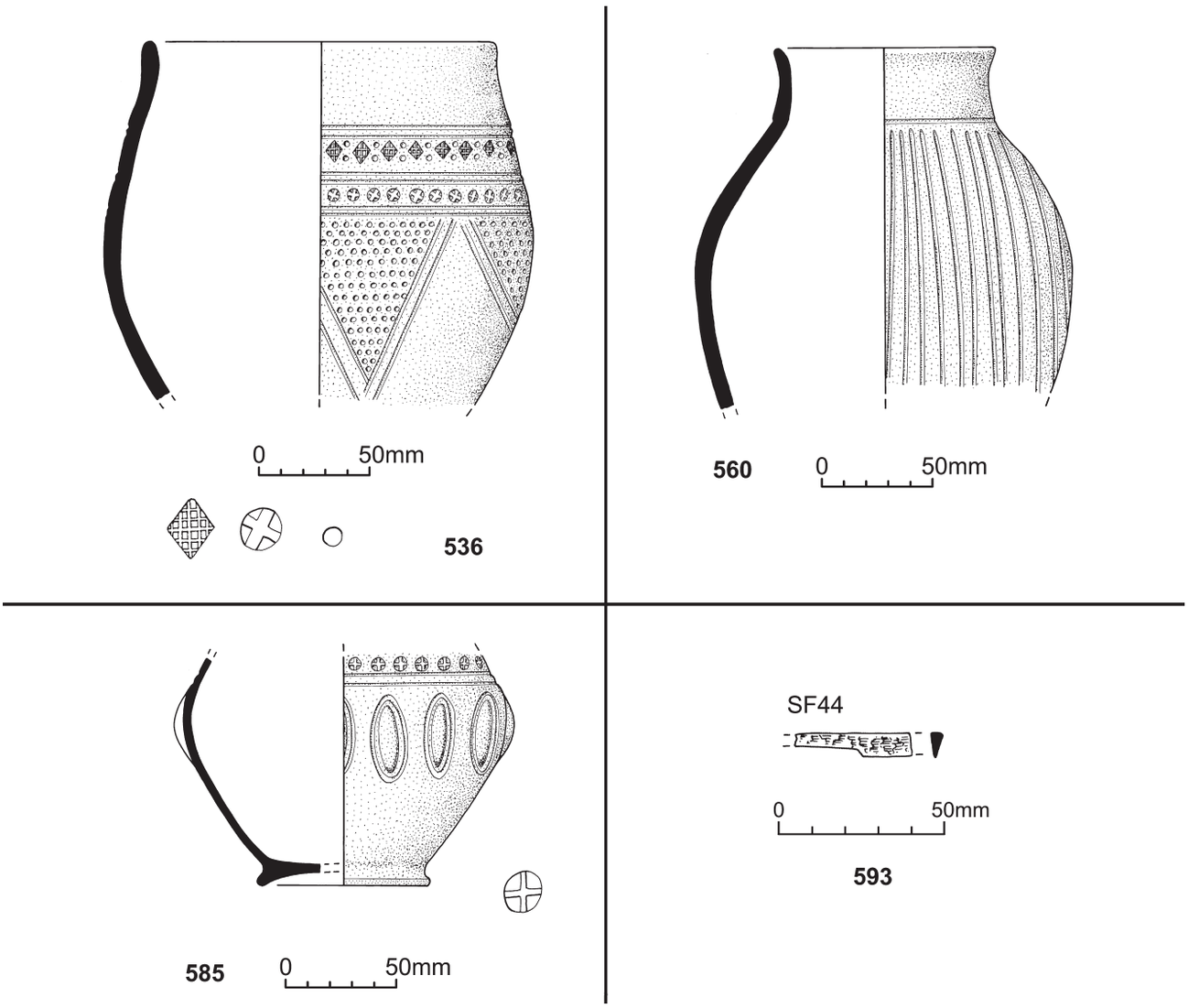

Figure 14 Pyre goods and urns from cremation burials 536, 560, 585 and 593

beneath this is a series of pendant triangles infilled with rows of stamped dots (Briscoe's type A1ai) (Fig. 14). Medium hard fabric with common small to medium quartz-sand and sparse organic temper

Pottery (555): 2 body sherds; one decorated with numerous simple stamped dots (Briscoe's type A1ai). Hard fabric with common small quartz-sand and sparse organic temper. From the vessel described above

Cremated human bone: 71.6g (possible juvenile)
occipital (1.4g)

Cremation burial 540
Circular pit, 0.26m diameter, 0.17m deep
Single vessel, fill 541
Urn: 25 base and body sherds from a plain globular pot. Abraded. Soft sandy fabric
Cremated human bone: 122.1g
vertebral arch (2.4g)
ulna shaft (1.6g), proximal phalanx (0.6g)
Glass: SF42: melted opaque black glass bead. Shattered translucent blue glass bead

Cremation burial 546
Circular pit, 0.2m diameter, 0.15m deep
Single vessel, fill 547
Urn: 30+ body sherds from a thin-walled vessel. Hard fabric with common organic temper and common small quartz-sand
Cremated human bone: 34.9g (possible juvenile)

Cemetery-related pit 548
Irregular pit, 1.28m x 0.8m, 0.22m deep. Truncated
Fill 549
Pottery: 5 base and body sherds. Abundant organic temper
Intrusive: two joining medieval B2 rim sherds, shell-tempered ware (6g)
Residual: prehistoric body sherd (4g)

Cremation burial 556
Circular pit, 0.14m diameter, 0.07m deep
Single vessel, fill 557
?Urn: 20 body sherds. Abundant organic temper
Cremated human bone: 111.4g
humeral shaft (3.8g), radial head (1.3g)
femoral shaft (21.2g)

Cremation burial 558
Circular pit, 0.3m diameter, 0.1m deep. Disturbed
Single vessel, fill 559
?Urn: *c.*25%, base and lower body sherds. Abundant organic temper
Cremated human bone: 61g (some weathering/abrasion)
vertebrae (1.2g)
femoral shaft (12.2g), tibial shaft (7.2g)

Cremation burial 560
Circular pit, 0.34m diameter, 0.17m deep
Single vessel, fill 562
Urn 561: *c.*75% of a globular pot with flaring, everted rim; Myres' type II.6. Decorated with a single incised neckline, underneath which are multiple incised vertical lines extending down to beyond girth line (Fig. 14). Abundant organic temper
Cremated human bone: trace
single fragment of cranial vault from residue

Cremation burial 578
Oval pit, 0.32m x 0.19m, 0.08m deep
Single vessel, fill 577. Occasional charcoal
Pottery: 36 body sherds. Common organic temper
Cremated human bone: 40.4g from a single ?infant

Cremation burial 580
Irregular pit, 0.14m x 0.12m, 0.02m deep. Very truncated
Single vessel, fills 579 and 40
Pottery: 19 body sherds. Abundant organic temper
Cremated human bone: 1.3g

Cemetery-related ditch 581
Ditch, 6.5m+ x 1.08m, 0.33m deep
Fill 582
Pottery: Body sherd. Abundant organic temper
Burnt flints: 82g

Cremation burial 585
Oval pit, 0.35m x 0.33m, 0.07m deep
Single vessel, urn fill 588, backfill 586. Rare charcoal in fill 588
Urn 587: *c.*50% of a carinated bowl with footring base and upright, flattened rim; Myres' type II.7. Decoration comprising: at least two incised concentric necklines; row of stamped cruciform circles below (Briscoe's type A4ai), underneath which are a series of outlined oval bosses (Fig. 14). Max. base diam. approx. 70mm
Cremated human bone: 30.7g (?infant)

Cemetery-related pit 591
Oval pit, 0.9m x 0.61m, 0.08m deep
Fill 592

Cremation burial 593
Irregular pit, 0.3m x 0.18m, 0.12m deep. Disturbed
Single vessel, fill 594
?Urn: 20 base and body sherds. Abundant organic temper
Cremated human bone: 4.2g (?infant)
Metalwork: SF44: iron knife fragment; tang of knife (Fig. 14). Length 35mm; thickness 6mm

Possible burial? pit 615
Pit, *c.*0.24m diameter, 0.1m deep
Fill 569
Pottery: 3 base and body sherds. Common organic temper
Residual: two crumbs, Roman sandy grey ware
Burnt flint: 14g

Cremation burial 650
Oval pit, 0.3m x 0.27m, 0.19m deep
Single vessel, fill 651
Pottery: pottery crumbs, abundant organic temper
Cremated human bone: 20.3g

Cremation burial 652
Sub-circular pit, 0.37m diameter, 0.08m deep
Single vessel, fill 653
Urn: 27+ base and lower body sherds from a plain globular vessel. Hard fabric with common organic temper
Cremated human bone: 62.5g
ribs (3.8g)
Metalwork: iron rivet head. Rectangular; edges chipped. Beginnings of rivet head shaft extant in centre (circular in cross section). Dimensions 9mm x 6mm
Animal bone (burnt): Ungulate metatarsal (1.6g)

Chapter 4. Artefactual Evidence

I. Summary

The artefacts from the cemetery date from the second half of the 5th century through to the mid and possibly into the late 6th century. There is no evidence, however, for continuation into the 7th century. It should be stressed that much of the material is not closely datable; the metalwork is in fairly poor condition and lacks diagnostic material. In particular, the range of brooches often found on Anglo-Saxon cemetery sites, which would help to refine the postulated date, is absent. At Rayleigh, the main indicators of date are the cremation urns and the beads, which include a complete unburnt bead string from the only possible inhumation identified within the cemetery (burial 61). The largest assemblage component is pottery, mainly representing cremation urns and accessory vessels from a total of 145 burials. Pottery was also recovered from a number of cemetery-related features which were not considered to be primary burials (see gazetteer, Chapter 3). The pottery was all unburnt except for two sherds from burial 352. These may represent pyre goods, perhaps in the form of an offering in a pottery vessel placed on the pyre. In addition, there is a range of typical personal objects in metal, glass, antler and other materials. Many of these are burnt and must have been extracted from the pyre, either incidentally or deliberately, for inclusion in the burial. The degree of burning is easier to ascertain in some objects — for instance, the copper alloy and the beads — but the ironwork would require microscopic examination of the crystalline structure to confirm whether it has been burnt (McKinley 1994a, 91). The fragmentary nature of the ironwork may indicate, however, that these objects have indeed been burnt.

It is unlikely that many (if any) of the assemblages are complete, owing to the extensive truncation and disturbance to which the graves had been subjected. The pottery is highly fragmented, and many of the vessels are now lacking rims. Estimation of the number of vessels in a grave is therefore sometimes made difficult but, nevertheless, a distinction between urns and accessory vessels has been attempted. These details, along with detailed descriptions and dating, are presented in the gazetteer of burials and cemetery-related features (Chapter 3) and/or in Table 1.

II. Pottery

by Sue Tyler

Introduction

Almost all of the assemblage had suffered some degree of truncation and the vessels are badly fragmented. Despite this, the cemetery produced a total of 160 vessels, of which 107 are plain cremation urns, thirty are decorated cremation urns, six are plain accessory vessels and two are decorated accessory vessels. Two burnt sherds from burial 352, which are dissimilar to the unburnt fabric of the cremation urn, are quite possibly from a seventh accessory vessel, perhaps one containing a food offering and placed on the funeral pyre. There are also fourteen examples of pottery from non-burial contexts, which, although most probably redeposited from cremation burials, could be non-funerary in function. In the absence of a more recent analysis of early Saxon pottery from cemetery contexts, a date range has been assigned to the decorated vessels (Table 1) using the classification of Anglo-Saxon pottery published by Myres in 1977. It is acknowledged, however, that the dating put forward by Myres has been shown to be too restricted for some classes of vessel (Evison 1969, 157–73; 1994, 20–1). In particular, the carinated and biconical bowls (of which there are several used as cremation urns at Rayleigh) have been shown to have been popular well into the middle of the 6th century at other Essex settlement and cemetery sites (Hamerow 1993 for Mucking; Tyler and Major 2005 for Springfield Lyons; Evison 1969; 1994 for Great Chesterford comparanda).

Plain vessels: forms and dating

The plain pottery vessels can be divided as follows: 107 cremation urns, seven accessory vessels and fourteen vessels from non-burial contexts. Table 2 shows the divisions into forms which can be made.

It is very clear that the predominant plain form within the cemetery assemblage is the globular jar with flat or slightly sagging base. The single identifiable example of a biconical jar has a footring base and it is quite likely that the four other vessels which exhibit a footring base are also of biconical form (as only one globular jar has a footring base). Given that there is such a large number of truncated vessels which have no diagnostic profile (fifty-eight) it seems reasonable to suggest that at least some of these may have been of biconical form. There is

Type	*No. of vessels*	*Vessel/fill no.*
Globular jars with flat or slightly sagging bases	61	
Globular jars with footring bases	2	227, 386
Biconical jar with footring base	1	431
Sub-biconical jar	1	453
Other jars with footring base (exact form not certain)	4	95, 398, 463, 474
Globular bowls	1	416
Others (form not possible to determine)	58	

Table 2 Plain vessel forms

only a single example of a plain bowl (burial 415) within the assemblage; this is not entirely unexpected, as bowls would have been an unlikely choice for cremation urns and are much more likely to have been used as accessory vessels, although these are more usually decorated. It is worth noting that there are no carinated vessels in the plain forms; this may have been a pot form which was intended to go hand-in-hand with very particular decorative schemes. Plain cremation urns found in association with identifiable pyre goods (excluding burnt clay, pyre debris, animal and human bone) number thirty-five in total. The associated artefacts support the postulated date of the urns, where a date for the urn is given, but do not help greatly in defining the date range more precisely. It is evident that many of the plain cremation urns share characteristics with urns from other East Anglian sites such as the large mixed burial rite cemeteries at Spong Hill, Norfolk (Hills and Penn 1981; Hills *et al*. 1987; 1994). However, until an analysis of the pottery from Spong Hill is published, it is difficult to cite any dating parallels.

Decorated vessels: forms and dating

In total, thirty-two pots are decorated; with the exception of two carinated bowls, all are cremation urns. It is unusual, as noted above, for a bowl-shaped vessel to be used as a cremation urn. However, they do occur at Rayleigh, as demonstrated by carinated bowls 259 and 261 in double burial 258. Within the cemetery assemblage the plain vessels outnumber the decorated examples by roughly 4:1. The latter are more likely to have been exclusively receptacles for cremated remains, whereas some of the plain pots could well have been accessory vessels for food, either placed directly onto the funeral pyre (the most likely explanation for the two burnt sherds from burial 352), or buried, unburnt, alongside the cremation urn in the form of grave goods. The decorated urns have a slightly higher incidence of association with identifiable pyre goods: eleven out of thirty urns, compared with thirty-five out of 107 plain urns. This might be indicative of a higher status for those buried in decorated urns.

Myres' (1977) classification has been applied to the decorated vessels from the Rayleigh cemetery (details in gazetteer, Chapter 3). The thirty-two decorated vessels exhibit a wide variety of decorative techniques: stamps, incised lines, applied solid bosses and one possible example of rouletting. The techniques are mostly used in combinations of two or three; most commonly, stamps with incised lines, incised lines with bosses, or incised lines with stamps and bosses. Rarely does the potter employ a single decorative technique: urn 561 (Plate 6), grave 560, uses incised lines only. The single possible example of rouletting, very faintly impressed, occurs on urn 122 (grave 121), along with stamps and incised lines. Table 3 gives the identifiable forms.

In the absence of a more recent analysis of the chronology of the use of these techniques, Myres' corpus has been applied. However, it is generally acknowledged that his dating is now thought to be too early in regard to some diagnostic forms (*e.g.* carinated bowls need not be exclusively 5th century). Myres' corpus also struggles to decide whether to classify on form or decoration, with the result that some urns (*e.g.* pots with footstand or footring bases exhibiting line-and-dot decoration) could logically be placed in two or more groups. A more flexible approach perhaps needs to be taken with respect to the Rayleigh urns with an acceptance that the carinated forms with simple line-and-dot or line-and-boss decoration (urn 32, grave 30; urn 168, grave 167) are among the earliest in the cemetery and are most likely 5th century. Those with the elaborate use of one or more stamps in zones and panels demarcated by incised lines and sometimes incorporating bosses (urn 122, grave 121; urn 288, grave 287; urn 252, grave 251; urn 443, grave 441; urn 537 (Plate 5), grave 536) form the bulk of the assemblage and are probably slightly later, dating to the early–mid 6th century. Urns with primarily globular forms characterised by the fairly haphazard used of stamps (*i.e.* precisely defined zones have been abandoned), usually combined with incised lines (though, again, these are more loosely executed), form the latest group (urn 230, grave 251; urn 561, grave 560), of mid and possibly even late 6th-century date.

Pot stamps

Stamp classifications based on Briscoe's (1981) pottery stamp classification are given in the gazetteer (Chapter 3). A number of general points can be made regarding the stamped vessels: stamps occur on a wide variety of forms and in association with other methods of decoration (incised lines, applied bosses, etc.) and they do not appear to cluster together in any particular part of the cemetery.

The stamps themselves show a wide variety of motifs (Fig. 15). It is not possible to derive much information from types which are extremely common, *e.g.* the stamped dot, stamped circles (variations on Briscoe's Type A1), the cruciform circles sometimes called hot-cross-bun types (Briscoe's Type A4) and the rosette stamps (Briscoe's Type A5). Some of the rarer stamp types deserve closer study because their limited use and distribution can reveal

Type	*No. of vessels*	*Vessel/fill no.*
Globular jars	10	72, 122, 159, 252, 288, 297, 515, 534, 537, 561
Sub-globular jars	1	230
Biconical jars	2	439, 531
Sub-biconical jars	4	127, 142, 443, 460
Sub-biconical jar with footring	1	32
Biconical bowl	1	427
Carinated bowl	2	259, 261, 483
Carinated bowl with footring	2	168, 587
Flat-based, but form not possible to determine	9	13, 37, 75, 211, 289, 332, 427, 442

Table 3 Decorated vessel forms

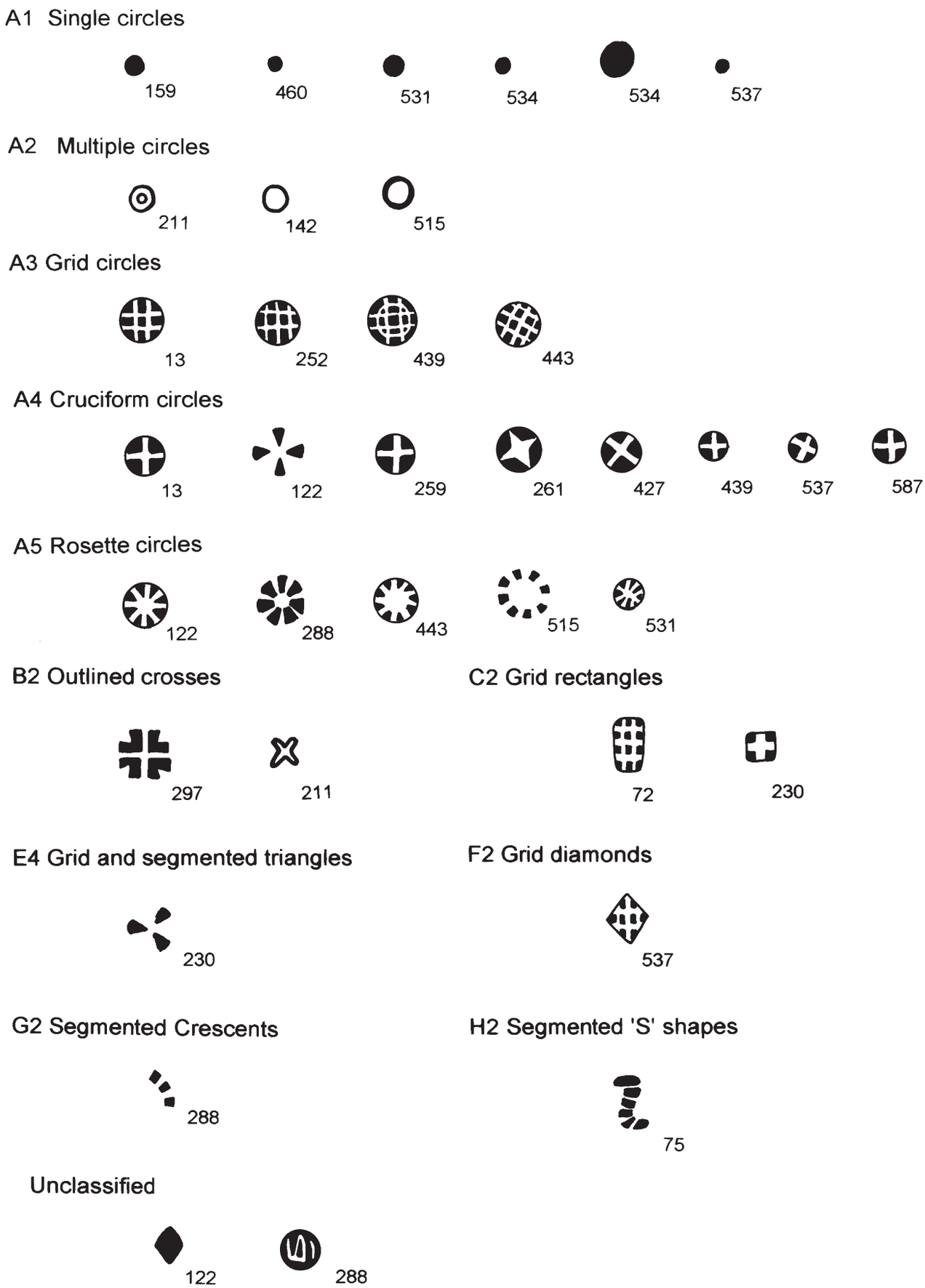

Figure 15 Pottery stamps (scale 1:1). Urn/fill numbers are shown, not grave numbers

cultural and trading links between Saxon communities. The segmented 'S', Briscoe's type H2ai (cremation urn 75), and the grid diamond, Briscoe's type F2aii (cremation urn 537), are among a small number of less common stamp designs found both north and south of the river Thames. The segmented 'S' is found in comparatively large numbers from cemetery contexts at Mucking (Briscoe 1980; Hirst and Clark forthcoming) on the north side of the Thames, and at Northfleet and Horton Kirby (Darent valley), on the southern side (Briscoe 1980). The grid diamond is a very uncommon type, but is also found at Mucking and Horton Kirby (Briscoe 1980). This same pot-stamp connection was noted by Hamerow (1993, 95) in her study of the settlement pottery from Mucking; she postulated that there could well have been a river crossing close to the Mucking settlement at East Tilbury. A network of minor Roman roads still passable in the early Saxon period could have been utilised by peripatetic potters and other traders.

The fabrics

In line with other Saxon cemetery analyses, a percentage of the total assemblage of weight per fabric along with an estimated vessel count is given (actual weight of each fabric is considered unhelpful given that we are dealing with vessels mostly 15–75% complete).

Fabric 1. Quartz sand-tempered within a clay matrix containing few inclusions. Well-sorted, dense rounded to sub-angular small to medium particles (12% of the assemblage). At least fifteen vessels are present in this fabric, of which a high proportion (eight) are bowls and jars of carinated or sub-biconical form (sometimes with footring base) most commonly with incised line and stamped and bossed decoration. Vessels in this fabric include cremation urns 32, 168, 332, 427, 443, 460, 474 and 587 (Figs 11, 13 and 14), as well as one of two vessels found in burial 61 (not illustrated).

These are among the most complete and reconstructable urns from the cemetery, demonstrating the superior durability of quartz-sand as a tempering agent. They are also among the earliest pot forms, manufactured from the end of the 5th century through into the first half of the 6th. It is quite possible that these urns are the product of a single potter (or workshop) producing a high-quality product with a durable fabric and intricate decoration. One would imagine that this fabric would have been much easier to decorate with stamps and incised lines than the wares heavily tempered with organic material favoured for the manufacture of the plain vessels from the cemetery.

Fabric 2. Organic temper within a clay matrix containing few inclusions (75% of the assemblage, a total of 125 vessels). This is by far the most common fabric and nearly all are plain globular jars and bowls; only 20% are decorated (strangely, this includes cremation urn 252, one of the most decorated urns in the assemblage: Fig. 11). The bulk of the pottery in this fabric is likely to be 6th century in date. The carinated and biconical forms still occasionally occur in this fabric (*e.g.* decorated cremation urns 259 and 261 from double burial 258: Fig. 12 and bossed urn 127, ?early 6th-century: Fig. 10) but they were evidently going out of fashion in favour of globular and sub-globular shapes (decorated urns 122, 142, 230, 288 and 561, and plain globular bowl 416: Figs 10–14). The friable nature of this fabric means that vessels have suffered badly in the ground and many are extremely fragmented.

Fabric 2b. Organic temper with common iron oxide within the clay matrix (1% of the assemblage). At least two vessels have common to abundant iron oxide (urns 154 and 171).

Fabric 3. Tempered with quantities of organic matter and small to medium well-sorted dense quartz-sand (in varying proportions) within a clay matrix (10% of the assemblage, at least thirteen vessels). These include an almost equal number of biconical (*e.g.* urn 531: Fig. 14) and globular (*e.g.* urn 537: Fig. 14) forms.

Fabric 4. Tempered with flint within a clay matrix containing few inclusions (1% of the assemblage). A single vessel (urn 398) exhibited this fabric.

The most abundant fabric type at Rayleigh is, therefore, organic-tempered fabric, with no other tempering agents and few inclusions. This fabric (Fabric 2) makes up 75% of the assemblage. A small number of the Rayleigh vessels (1%) have common iron oxide inclusions (Fabric 2b). Iron oxide has also been noticed in pot fabrics from other Essex sites, notably Mucking (Hamerow 1993, 22–59) and Springfield Lyons (Tyler and Major 2005) and may be indicative of a particular regional clay source. Sandy and other fabrics represent less than 25% of the assemblage. This suggests a 6th-century date for the bulk of the pottery as it has been shown that the use of grass-tempering increased dramatically on early Saxon settlement and cemetery sites elsewhere (for example, at Mucking, Essex) during the 6th and 7th centuries (Hamerow 1993, 22–59). The number of pots with flint tempers or inclusions is very small (Fabric 4). Given that none of the Rayleigh pottery forms (or their associated pyre goods) indicates anything later than a 6th-century date range, it is postulated that the cemetery (or at least the excavated portion of it) ceased to be used sometime before the end of that century.

III. Metalwork

by Sue Tyler and Joyce Compton

The metalwork recovered is typical, if limited in both range and quantity, of Anglo-Saxon cremation cemeteries (McKinley 1994a). Most of the metal objects appear to have been recovered from the cremation pyre and are in very poor condition. Full details, including dimensions for all of the objects, can be found in the gazetteer (Chapter 3). The metalwork from pit 203 encompasses the largest number of stratified Saxon iron artefacts from the excavations, and includes a spearhead. There is also a quantity of fuel ash slag and other pyre debris. Also from the pit are possible shield board fittings and melted glass beads. This seems to represent quite a jumble of pyre material deposited in a pit, similar examples of which have been recorded from other Saxon cemeteries. McKinley (1994a, 88) suggests that metal objects were collected from funeral pyres and reused.

Knives/razors

Six knives were recorded; these came from the fills of possible inhumation 61, pit 203 and cremation burials 290, 301, 471 and 593. Five of the knives are small and of Böhner's types A and B (Böhner 1958), both of which were in use throughout the 6th century (Figs 9, 11, 12 and 14). These often formed a component part of a toilet set,

Plate 7 Copper alloy and antler purse rings

along with tweezers and miniature shears (see Spong Hill volumes for comparanda). It has been commonly asserted that many of these knives would have functioned as razors, and although this could be the case in at least one of the Rayleigh burials (290), which contained a fragmentary but still an obviously small blade, others are clearly accompanying females and a more general all-purpose function seems more applicable. The knife from burial 471 appears to have been suspended on a chatelaine and probably formed part of a toilet set, and that from 301 has melted glass on one side of the blade, almost certainly from a bead.

With the exception of that from possible inhumation 61 (fill 62), all of the knives had probably been burnt on the pyre. The knife blades from burials 290 and 301 have cremated bone adhering to them. Because they have been subjected to extremely high temperatures on the pyre they have fragmented and are in poor condition, but in one instance — burial 301 (fill 302) — the complete length of the knife can be estimated at 120mm. It is unlikely that the other fragmentary examples were any longer, supporting their postulated function as part of a toilet set.

Spearheads

Both of the spearheads (pit 203 and surface find 237) recovered from the cemetery (Fig. 11) belong to Swanton's series H1 angular blades (Swanton 1973, 102–7), which were current throughout the 6th century and widespread in their distribution. Neither object was recovered from a grave, and it may be worth noting that because of their large size spearheads are not commonly found in cremation burials. In common with the knives, the spearheads are in poor condition and appear to have been burnt on the funeral pyre. Microscopic examination of the crystalline structure would confirm this.

Buckles

Fragments of burnt buckles were found in at least nine cemetery features (Table 1; Figs 10–12). Because of their fragmentary nature, it is not possible to date them securely. Both iron and copper-alloy buckle fragments survive and their forms (D-shaped and oval) are typical of a late 5th- to 6th-century date range. The most complete example, a D-shaped iron buckle fragmented into five joining sections, occurs in the fill of cremation burial 194; the example from burial 141 is also of D-shaped form. Where it is possible to estimate size, the buckles are fairly large, ranging from between 40 and 45mm in height and between 20 and 30mm in width. As their most likely function was to fasten a belt at the waist, it is not surprising to find that all of the buckles have been burnt on the funeral pyre (that from burial 141 has cremated human bone adhering). An essential component of both male and female attire, they are found in burials representing both genders.

Plate 9 Buckle and melted necklace, burial 194

Plate 8 Multi-coloured beads, burial 478

Chatelaine chains/pins
Fragments of iron chatelaine chains and pins occur in at least five burials (8, 99, 373, 471 and 530), but are too fragmentary to allow further analysis. All represent pyre goods and their occurrence within the cremated remains from the pyre provides a secure indicator of a female burial.

Copper alloy ring
A single example of a large copper alloy ring came from possible inhumation 61. The ring is unburnt and not closely datable. The object probably functioned as a purse ring or as a ring for the suspension of other objects. The internal diameter is 45mm, making the ring too small to have been a bracelet (if this is a bracelet it would surely have to be a child's). It should be noted that the internal diameter matches that for the antler purse ring (below) (Plate 7), perhaps confirming identification as such an item. Interestingly, the only other examples of copper alloy, recovered from burials 30 and 501, consist solely of melted globules. The occurrence of the ring together with a bead necklace concurs with their usual (but not exclusive) association with female burials.

Plate 10 Melted necklace, burial 121

Fragments of riveted copper alloy, iron and bone plate
More than ten contexts produced small fragments of iron and copper alloy, including disc-headed rivets, pins, rods and nails. One example (burial 373) incorporated a piece of worked bone plate. These fragments could be the remains of large composite objects such as buckets, bowls, drinking vessels and shields, while their fragmentary nature indicates that the parent objects had all been burnt. McKinley (1994a, 89) suggests that ascribing gender to these objects is problematic, with only shields being certainly associated with male burials. In common with the spearheads, no larger elements, such as shield bosses, were present in the burials. It is also worth noting that no shield bosses were recovered from the pyre debris within pit 203, which might have been expected given that other probable shield fittings are present.

IV. Beads and glass

by Sue Tyler and Joyce Compton

At least twenty-four cemetery features produced beads. These were mostly made of glass, but also of amber, jet and rock crystal. Nearly all of the beads were burnt or melted to some degree; the main exception is the fine string of beads from possible inhumation 61 (discussed below), which is entirely unburnt. Most of the melted beads were found singly or in groups of two or three, and there were several examples (burials 121, 190, and 194) of two or three beads which had fused together on the pyre. Indeed, burials 121 and 194 appeared to contain the melted remains of necklaces (Plates 9 and 10); at least twenty-seven beads could be identified in the latter. Burial 478 contained a single unburnt cylinder bead of Guido's type 8xixb, and a melted bun-shaped bead which was distorted, but was probably Guido's type xviiib (Plate 8). Most of the melted beads comprised multi-coloured examples which seemed to be the remains of large decorated beads. The smaller translucent annular blue or green beads were less numerous. Of particular note are the gold-in-glass and silver-in-glass segmented beads from grave 346 (fill 345) (Plate 11). These are now regarded as

indicative of a later 5th- to 6th-century date (Brugmann 2004, 30, 75). It is thought that this bead type had some special significance in burials, perhaps being held in some way to be magical or to reflect the wealth of the dead person (Guido 1999, 78). All of the beads recovered from the burials are of a size and form indicative of their use as a component of a decorative bead string. These would have been worn either around the neck or festooned between brooches across the chest. None of the beads is large enough to indicate an alternative use, such as a sword-bead or an amulet. From this it can be reasonably safely deduced that their presence within the burial is indicative of the female gender. The gazetteer (Chapter 3) lists the beads using Guido's (1999) classification for the glass beads of Anglo-Saxon England AD 400–700, but the discussion below takes into account more recent work by Brugmann (2004).

Necklace from Grave 61
(Plate 12)
The beads from possible inhumation 61 represent a wide range of bead types, here found together on one necklace (including the central Roman bead). The long period of use and reuse of glass beads always needs to be borne in mind and this may account for some of the potentially early types within the bead string, which was probably deposited in the grave during the first half of the 6th century. Guido (1999, 67) regards the rather large and clumsy cylinder beads with green and yellow stripes as belonging to contexts of the later 5th to 7th centuries. They are concentrated in East Anglia and appear to have been a regional type as Guido was unable to find prototypes on the continent. They are found in graves which date to the late 5th century and the first half of the 6th century at Mucking, on the north side of the river Thames (Hirst and Clark forthcoming). Brugmann (2004) has more recently termed these beads 'traffic light'-type beads and dates them to her phase A1, *c*.AD 450–530. In East Anglian cemeteries it has been noted that these beads commonly occur with blue annular beads (Penn and Brugmann 2007), and Hirst (Hirst and Clark forthcoming) has noted the same occurrence at Mucking.

The opaque white beads with light blue crossed waves and blue dots within the same bead string are similar to a type known to have been produced from the mid 6th up to at least the mid 7th century in the Rhineland, the Netherlands and northern France. Most of these beads are concentrated in the southern counties, those without dots being concentrated in East Anglia (Guido 1999, 32–3). Other 6th-century types within this necklace are the yellow truncated cylinders. These were very popular in Germany in the late 6th century and Guido's theory is that they came into England via Frankish sources during the course of the 6th century (1999, 38–9). The dramatic decline in the use of translucent glass beads during the 6th century in the Liebenau cemeteries has been noted, so that later 6th-century bead strings are almost exclusively of opaque beads (Siegmann 1997, 137).

The beads have been strung onto modern thread in the order recorded during excavation (Plate 12). The faience melon bead appeared to be central, with the remainder strung in apparent random order to either side. An amber bead had been placed on either side of the melon bead. Almost all of the translucent blue annular beads, however, were strung together.

Plate 11 Detail of gold-in-glass bead, burial 346

Jewellery inset
A diamond-shaped fragment of amethyst-coloured glass was found among the cremated bone of burial 366. The fragment was probably used in imitation of the precious stone and formed an inset for a piece of jewellery such as a saucer brooch.

Plate 12 Bead necklace from burial 61

Glass vessels
Two burials, 238 and 467, contained sherds and melted pieces that are derived from glass vessels. The colour of the glass, translucent dark green, is indicative of cone beakers of 5th-century date. Two further features, burial 452 and cemetery-related pit 520, also contained melted green glass, but it is uncertain whether this came from vessels or plain beads.

V. Worked bone/antler objects
by Sue Tyler and Joyce Compton

Purse ring
Five fragments from an antler ring, probably a purse ring, were found among the cremated bone of burial 296 (Plate 7). The sections of ring are pear-shaped, and roughly fit together to form approximately half of the object. The fragments have been burnt and are in poor condition. The purse ring finds parallels with examples from other early Saxon cemeteries, in particular those from cremation burials at Spong Hill, Norfolk (Hills *et al*. 1987; 197, fig. 117). It is not closely datable but fits within a late 5th- to 6th-century date range. Its maximum external diameter is 85mm, and the internal diameter is *c*.40mm.

Bead/ring
Burial 346 produced five worked bone fragments which are probably from the same annular object, possibly a bead but more probably a ring. The external surface appears to be decorated with incised lines. The object has been severely burnt, and the fragments no longer fit together. Its maximum projected external diameter is 20mm, while its internal diameter is 15mm.

VI. Conclusions
by Sue Tyler

The finds from the Rayleigh cemetery afford a unique insight into the community that once lived in the vicinity. In terms of the condition and range of materials represented in the finds, they are typical of early Saxon cremation cemeteries located both north and south of the river Thames. Other characteristics are, however, unusual. The range of grave-goods is atypical, in that the brooch or dress-fastener is not represented in the assemblage. A relatively high-status object, this would have been an essential part of a relatively wealthy Saxon woman's dress and consequently, although they would not be abundant, a number of occurrences would be expected from a cemetery of this size. One would also imagine that such prestigious objects would have been carefully retrieved from the funeral pyre for burial. One possible explanation is that copper alloy objects were so badly contorted by the intense heat of the funeral pyre (several cremation burials have melted copper alloy globules within their pyre debris) that they were collected, remelted and recast as new artefacts, or else simply not retrieved. The relatively small number of recovered melted beads from each cremation burial is perhaps also indicative of the extremely high temperatures reached during the process of cremation. The comparatively good representation of iron objects is also linked to their increased resistance to high temperatures rather than other factors. This would not however explain the absence of brooches within burial 61. The contents of the single non-cremation burial (61) include an impressive bead string of glass and amber beads but lack the brooches that would usually accompany such a treasure. The lack of this artefact type from Rayleigh could be due to a number of factors, such as local fashion or the family tradition of passing a valued object down through the generations (and hence not burying it).

Particular attention has been given to the identification of pottery vessels other than those used as cremation urns and a number of accessory vessels have thus been identified. These would have contained a food offering and may have been either placed directly on or alongside the funeral pyre or buried alongside the urn. Accessory vessel fabrics were studied for evidence of burning. However, only a single case of exposure to high temperatures was identified (burial 352). This still gives an indication that pottery vessels containing food could occasionally have been placed directly onto the funeral pyre.

The use of artefacts for gender assignation is fraught with difficulties, especially where selective retrieval prior to deposition has taken place. The artefacts (or fragments of such artefacts) that have been taken as indicative of a female burial at Rayleigh are chatelaines, pins and small to medium-sized beads pierced for suspension. The male indicators are knives (small enough to be considered as functional as razors), disc-headed rivets, nails and other fragments of plate (possibly originating from shield boards). Objects which are regarded as more likely to be associated with a male burial (though not exclusively so) are glass vessels and worked bone items, while purse rings (antler and copper alloy) are more commonly found with females. Medium-sized knives (not part of a toilet set) and buckles do not seem to have a particular gender association. Although precise gender assignment is not possible, the artefacts do clearly show that both male and female burials were taking place in the Rayleigh cemetery.

Chapter 5. Environmental Evidence

I. Cremated human remains

by Natasha Powers

Introduction

The material available for study consisted of a total of 25,750g of burnt bone from 157 contexts. All bone had been sorted from bulk soil samples collected from features of Saxon date. Of the samples, seventy-two had been contained within urns, eighty were from unurned graves or pit fills, two were post-hole fills and three were from surface spreads.

Methods

Each sample had been sorted prior to examination by the author. A 4mm sieve had been utilised and observations on the contents of the residue and the 4mm fractions had been made. Charcoal was included in the residue, but stones, including burnt flints, had been removed. The author examined the washed and sorted cremated bone samples in accordance with current guidelines (McKinley and Roberts 1993; McKinley 2004). The total weight of each context was measured in grams and fragmentation was determined by noting the largest fragment size and the average (mean) size of fragments within each context (to the nearest 5mm). The author then carried out additional separation of the fractions greater than 10mm and residual fragments less than 4mm but greater than 2mm. Each subdivision was weighed and calculated as a percentage of the total bone present. Identifiable fragments were divided into body areas and weighed accordingly. Any fragments identifiable to element were noted and also weighed. The weight of fully identified fragments did not necessarily total the weight of that body zone, as it was not always possible to ascertain which element all fragments came from, merely to place them in a category by a process of elimination (for example, by examining relative robusticity or cortical thickness). The remaining residue (<2mm fraction) was visually examined for bone and artefact fragments. An estimated percentage of bone present was recorded. This estimate was not added to the total weight.

The colour of the cremated bone fragments was described (Holden *et al.* 1995a and b; McKinley 2004), and the approximate percentage of each colour present was calculated. Observations were made on the preservation of the bone within each sample. The minimum number of individuals (MNI) has been calculated for each sample by looking for any repeated skeletal elements or parts thereof and any osteological inconsistencies: for example, male and female characteristics or mixed juvenile and adult bone. McKinley (1994a) cautions against the use of the single repeated skeletal element as a measure of minimum numbers, as mixing could occur at a regularly reused pyre site or after deposition of the remains. In the event, no repeated elements or inconsistencies were identified in any samples.

Age and sex have only been estimated where sufficient diagnostic elements were present. The morphology of the skeleton and dental development data were examined to provide demographic information (Buikstra and Ubelaker 1994; McKinley 2000). Sex estimation was based on a five-point system for each characteristic, ranging from '1' for male, through to '5' for female. Poor preservation prevented observation of the state of epiphyseal fusion in many of the samples and it was only possible to use pubic symphysis changes in one case. Partial auricular surface fragments only allowed general observations of age (Scheuer and Black 2000; Lovejoy *et al.* 1985; Brooks and Suchey 1990). As a result of the fragmentation and absence of specific elements, observations on age were generally limited to a diagnosis of 'adult'. Degenerative joint disease in the vertebrae was also used to infer adult age, as has been practised elsewhere (McKinley 1994a). Broad age categories have been employed: adult (young = <35 years, mid = 36–45 years, and mature = >46 years), juvenile (for subadults >6 years as indicated by molar eruption), infant (for individuals aged 5 years or less) and neonate.

The size or weight of remains have not been used as indicators of age as they have been shown to be unreliable (McKinley 1994a). The exception to this was the neonatal remains, where the size of long bone fragments demonstrated the young age of the individuals. Several samples contained remains which appeared most likely to be from non-adult individuals. This was noted but not included in demographic discussions. No metric data could be obtained due to the fragmentation of elements and shrinkage (shown to be between 12 and 15% and greatly variable (McKinley 1994a). Although there are eighteen deposits that contained fragments of petrous temporal, many are small internal pieces and two are sub-adult. There are insufficient measurable pieces to allow sex estimation on metric grounds and so this was not attempted.

The presence of animal bone and any other artefacts has been noted and these extracted. All artefactual remains were returned to the ECC Field Archaeology Unit for further analysis. A full report can be found in the archive.

Results

Preservation and disturbance

All excavated features had suffered some level of truncation and/or disturbance, as described in Chapter 3 above. This led to the loss of bone, in varying degrees, in almost all of the samples, and displacement and, perhaps, mixing of bone in others.

In general, the bone assemblage was moderately well preserved, though often highly fragmentary, and showed a bias towards the survival of cortical fragments at the expense of trabecular bone. If the ends of long bones were present, the joint surfaces were rarely observable and the fragments themselves often unidentifiable to body area.

Several samples contained bone that was noticeably abraded or weathered (possibly indicating redeposition). The fills of graves/pits 137, 214, 219, 229, 352, 375, 388, 473 and 558 were affected in this way. The erosion frequently prevented the recognition of fragments and, in several cases, smaller pieces of bone could not be identified to species level. Five samples contained no measurable bone and a further thirteen small samples had no residue present and only small quantities of bone, weighing fractions of a gram. More than half of the bone came from pit fills, where a 100% sampling strategy resulted in the collection of larger quantities of residue than would be found in an urned burial. It should also be noted that most of the fine fractions contained many very small burnt bone fragments.

Secondary and non-burial deposits

A total of 148 samples are likely to have been primary burial deposits. Twelve samples, by virtue of the small quantities of bone present, poor preservation and by the archaeological data (details in archive), did not appear to originate from sites of primary deposition. These deposits are more likely to represent residual or intrusive bone from other archaeological features, intrusive material which could have originated from any one of a number of burials in the vicinity. Post-hole fills 140 and 333 are unlikely to be primary deposits. Three of the five samples containing no measurable bone are included in this group: fills 130 (pit 129) and 562 (burial 560), and fill 333 (post-hole 334). Fill 562 contained a single fragment of cranial vault and the accompanying vessel, 561, was apparently empty. Vessel 325 (burial 324) was highly truncated and the absence of bone is most likely to be a result of this.

Possible cross-context intermixing had been noted between cremated bone from two pairs of adjacent contexts: fill 62 (grave 61) with bone from within burial pit 60 and fill 140 (post-hole 139) with bone from within burial pit 137. Unfortunately, there were insufficient osteological data to confirm the intermixing of the remains, but it could not be ruled out on demographic or other osteological grounds and the archaeological data indicate that fill 140 (post-hole 139) was extremely unlikely to be a primary deposit. Fill 295 of cemetery-related pit 294 contained less than 5g of bone, much of which could not be identified to species, as it was highly fragmentary or abraded. It is likely that all this material was intrusive. Further grave fills (201, 267, 341, 463 and 470) produced bone which was also highly weathered and possibly intrusive. Vessel 304 (burial 305) contained just 3g of bone. It is possible that the vessel had never contained a complete collection of cremated remains, though the vessel was also heavily truncated. Interestingly, both this and vessel 325 (burial 324) above came from a small cluster in the north-east of the excavated area.

Minimum number of individuals (MNI)

Due to fragmentation it was not possible to state definitively how many individuals, or parts thereof, were included in every deposit, but the minimum number for each context was a single individual. A total of thirty-eight samples contained insufficient bone to allow definitive conclusions of their origins (or no human bone at all) and have been omitted from MNI calculations.

Cremation pit 229 had two fills, 231 and 232, plus an urn containing fill 234. These contained only highly fragmentary and weathered remains and, as there was no repetition of anatomical areas, it is reasonable to assume that these remains originated from a single cremated individual. The bone from vessel fills 260 and 262 was far better preserved, and originated from two separate vessels within a single cut, 258. Again there was no repetition of skeletal elements, so the interpretation that it was from a single individual is reasonable, though could not be definitively proved.

Taking the archaeological information into account, there was an overall minimum of 118 individuals. However, it should be cautioned that, as none of the deposits contained an entire skeleton, it is possible that adjacent pits or urns could contain parts of the same individuals. It was not possible to definitively match any skeletal material between contexts, even in those cases, outlined above, which had been identified from the archaeological data.

Demographic data

Sixty individuals, from sixty samples (38% of the total samples) were sufficiently complete to allow estimation of age at death. This most frequently relied on the development of the teeth or the fusion of significant epiphyses, and subsequently often a determination could be made only that remains were adult or probably adult. Of those individuals for whom age could be estimated, 86.6% were adult or probably adult (Table 4). This included four individuals (234, 374, 377 and 532) whose minimum ages, calculated from dental development data (Gustafson and Koch 1974) and fusion data, indicated that they were probable adults. A further 3.3% fell in the juvenile age group and 10.1% were infants or neonates.

It was possible to determine a more precise age-at-death estimate for a number of individuals. Partial auricular surface fragments allowed the bone in vessel fill 401 (burial 399) to be categorised as a mid or mature adult, and complete obliteration of the cranial sutures gave the same age estimate for the bone in vessel fill 459 (burial 461). A more complete auricular surface in vessel fill 380 (burial 382) gave an age at death of between 35 and 39 years. The individual in vessel fill 77 (burial 79) was aged between 15 and 24 years at death: a young adult. Dental development data indicated that the individual in fill 297 (burial 296) was around 7 years at death, and fusion of the femoral epiphysis showed that the one from vessel fill 93 (burial 91) was less than 19 years old.

Sex could be estimated for seven individuals: 5.9% of the total sample and 13.5% of the adults. Although fragments of pelvis were often present, no sexually

Age	*Number*	*% of aged individuals*
Adult	26	43.3
Adult (probable)	26	43.3
Juvenile	2	3.3
Infant	1	1.7
Infant (probable)	1	1.7
Infant/neonate	3	5
Neonate	1	1.7
Total	**60**	**100**

Table 4 Age at death

Burial	*Fill*	*Sex*	*Feature observed*
60	69	?M	Nuchal crest = 2
79	77	Intermediate	Preauricular sulcus = 3
94	95	?M	Nuchal crest = 1
331	332	?M	Nuchal crest = 2
382	380	?M	Mastoid process = 1
441	444	?M	Mastoid process = ?1 (incomplete)
485	483	?M	Nuchal crest = 1

Table 5 Sex estimation

dimorphic areas were sufficiently well preserved for observation and all sex estimates were made from cranial features. In the absence of several corroborative morphological features, only estimates of 'probable' sex have been given. Results are shown in Table 5.

The apparent male bias is probably a result of the poor preservation of much of the assemblage: only the tougher areas of bone survived intact, so robust males were more likely to be better preserved, and therefore recognisable, than were the more gracile females.

Non-metric traits

An un-sided cranial fragment from vessel fill 444 (burial pit 441) and the left parietal from vessel fill 312 (burial pit 310) had observable parietal foramen (small holes for the blood vessels of the cranium), which are not present in all individuals.

Pathology

Few indications of pathological conditions were observed in these remains. Again, this is likely to be largely related to the degree of fragmentation and the general preservation of the bone. Fourteen samples contained tooth fragments that could be identified to type, representing sixteen teeth (further samples contained fragments which could be said to be 'anterior' or 'molar' teeth). No dental pathology was observed. A right orbital roof was observable in vessel fill 401 (burial 399); this was from a mid or mature adult, and had no indications of cribra orbitalia (porosity in the orbit thought to result from iron deficiency anaemia).

Four individuals displayed bony changes consistent with degenerative joint disease. Grade 1 (Brothwell 1981 after Sager 1969) osteoarthritic changes were seen on the superior body of the third cervical vertebra from vessel fill 69 (burial 60), while Grade 2 changes were present in a lumbar fragment from vessel fill 253 (burial 251). Marginal vertebral osteophytes were seen in a lower thoracic or upper lumbar body fragment from vessel fill 312 (burial 310) and in three similar fragments from vessel fill 483 (burial 485). All spinal joint changes may reasonably be thought to have been age-related. It is unsurprising to find spinal joint degeneration in the assemblage, as such changes are the most commonly found form of pathology in archaeological samples.

Pyre technology and ritual

Oxidation

The colour of the cremated bone reflects the temperature to which it was subjected, and the resulting degree of oxidation. Macroscopic observations can therefore be used as an indicator of the efficiency of the cremation process (Lee Lyman 1994). The cremation of the human body requires a minimum temperature of 400°C (McKinley 1994a).

Ninety-nine samples (63.1% of all samples) were well cremated, with white or off-white and grey-blue colouration, and a further forty-five (28.7%) were completely calcined. This indicates almost complete oxidation, most bones having been subject to temperatures in excess of 600°C (Holden *et al*. 1995a and b). Additional evidence of the efficiency of the cremation process can be found in the frequent presence of fuel slag or ash. A total of 131 residues (83.4% of the total samples) had fragments of fuel slag or charcoal, and at least twenty-five burials contained the melted remains of glass beads or vessels. The temperatures required to produce fuel slag are in excess of 1000°C, while melted glass objects indicate that 700–1000°C had been reached (McKinley 1994a). This degree of efficiency is not uncommon in archaeological examples and has been demonstrated during experimental pyre cremations (McKinley 2000).

Charring was present in six human bone samples (3.8% of all), yellowish-white bone in two (1.3%) and dark blue colouration in three (1.9%). The remaining two samples contained no observable bone. Bone from vessel fill 262 (burial 258) showed charring on the upper part of the cranium, suggesting that this area had been less efficiently cremated and perhaps indicating the proximity of the top of the head to the limits of the pyre. The endocranial surfaces of cranial fragments in vessel fill 312 (burial 310) and fill 653 (burial 652) were significantly darker than the ectocranial, possibly demonstrating that the skull had stayed intact for some time during cremation. The darker-coloured bone in fill 127 (burial 126) appeared to be entirely animal bone and may reflect a differential placement on the pyre. The differences in colour between contexts appear, at least in part, a product of sample size, with larger samples increasing the chances of finding differential burning: five of the samples with charred bone were of several hundred grams in total, ranging from 268g to 614g, compared with the mean for the site of 325.9g.

Total weight of bone for burial

Almost 26kg of cremated bone was recovered from the site, with an average of 325.9g per sample. Individual weights ranged from 0.4g to 1241.6g, with five samples containing no measurable bone. Modern examples have demonstrated that between 1600g and 3600g (with an average of 2500–3000g) of bone can be expected to result from the cremation of an adult individual (McKinley 1989), while data from Spong Hill (McKinley 1994a) gave total weights of bone of between 117.2g and 3105.1g, with a mean of 812.4g. Although this included substantial amounts of animal bone and a number of multiple cremations (weighing between 1166.9g and 2008.1g), neither of which were noted at Rayleigh, there is still a considerable difference between the two sites. With 59.2% of the Rayleigh assemblage samples being less than 100g in weight, and 90.4% under 500g (Fig. 16), as a group the samples are smaller than many contemporary archaeological examples. The level of truncation and disturbance can perhaps best explain this.

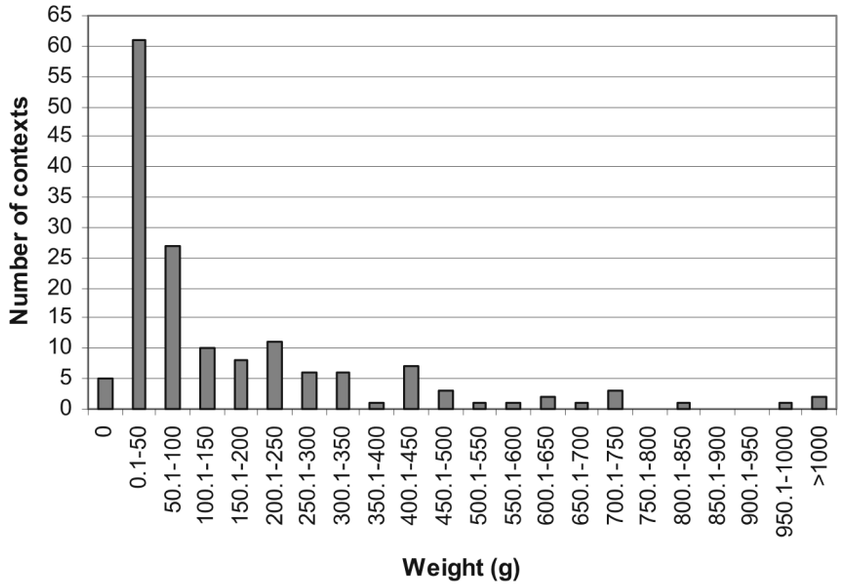

Figure 16 Weight of bone

Fills 260 and 262 were from separate vessels found within the same burial (258). No repetition of elements was seen between the two contexts and it seems likely that both deposits are the result of the cremation of a single individual, split between vessels. The total weight for these deposits was 619.6g, with each weighing over 300g. Within the other grouped contexts (see above) one deposit contained the majority of the bone. Even the largest contexts from Rayleigh contain significantly less bone than would be expected of a complete adult cremation, and therefore the burials represent only partial remains from each individual, even in the case of the youngest sub-adults and burials with multiple samples.

Fragmentation and dehydration

Examination of remains from modern crematoria has shown that there are consistent patterns in the manner in which elements fragment: for example the skull separating along the sutures, the buccal and lingual mandible laminating and the vertebral bodies separating from the neural arches. Fragments of apophyseal joints and cervical bodies were present from the axial skeleton, together with occasional rib fragments. Femoral and tibial shafts were generally identifiable, but fragmentary pieces of the arm bones were less easy to identify with the same degree of certainty. Even small cranial fragments were easily recognised, and there were numerous small pieces of tooth root present.

An undisturbed modern cremation results in fragments of around 250mm (McKinley 1994a and b). At Rayleigh, in 72.6% of the contexts (n=114) 50% or more of the fragments were over 10mm, a greater proportion of contexts than at the Saxon cemetery of Spong Hill (McKinley 1994a). The mean largest fragment size was 31mm (from 152 contexts where measurement was possible), with a maximum of 62mm. This is significantly smaller than the 120mm (average 42mm) from Spong Hill and 140mm obtained from undisturbed Roman cremations (McKinley 1994a and b).

Observation of modern cremations has shown that large fragments of bone remain even after high-temperature burning. Any movement of hot, brittle bone as a result of pyre collapse, collection of the remains or stoking of the fire would lead to further fragmentation (McKinley 1989, 1994b; Gejval 1969; Roberts 2003). Since bone may remain too hot to pick up even ten hours after burning (McKinley 2000), it can be seen how easily fragmentation might occur. Some authors have suggested that fragments under 50mm in length suggest deliberate breakage (Wahl 1982 cited in McKinley 2000), but a large corpus of data indicates that fragment size following excavation does not represent the size of bone originally deposited (McKinley 1994b). It is clear that the fragmentation pattern seen at Rayleigh is largely an artefact of post-cremation and post-deposition taphonomic processes.

Comparison with the known percentage weights of the anatomical areas of the skeleton (skull 18.2%, axial skeleton 20.6%, upper limb 23.1% and lower limb 38.1%) clearly shows a bias towards cranial fragments at Rayleigh. In just four contexts were the proportions of skull present in the expected range (18.1–18.8%), while in 101 contexts skull fragments made up more than 18.8% of the bone present (101/126: 80.2%). However, five deposits contained identifiable bone with no cranial fragments present and in nine cranial fragments made up less than 10% of the identifiable bone. As cranial fragments are readily identifiable, it has been suggested that exclusion was a deliberate burial rite (McKinley 2000). Several of the deposits with an under-representation of cranial fragments had been disturbed, and although one, vessel fill 268, was an urned burial (burial pit 270), it contained little bone overall, also suggesting truncation. It is possible that in these cases fragments of cranium had been placed uppermost in the grave and were lost to later site activity. The observed bias in favour of the skull at the expense of other areas is likely to be due to the two-fold effect of ease of identification for

the original collector, together with the identification bias at recording, which was influenced by the fragmentary and disturbed nature of the assemblage.

The axial skeleton was significantly under-represented. Only in thirteen contexts (10.3%) was 20% or more of the identifiable bone from this zone. This included one context entirely composed of axial fragments, though this amounted to only 0.3g of burnt bone. The elements of the torso, particularly those bones with a high proportion of trabecular, or spongy, bone, are less robust than the limbs, and under-representation results from fragmentation rather than deliberate collection bias. There was also little bone present from the upper limb: in only twenty-one contexts (16.7%) was more than 20% of identifiable bone from this area. In eighty-seven contexts (69.0%) 20% or more of the bone consisted of lower limb fragments. Of these, only fourteen (16.1%) lay in the 20–30% range. All other deposits showed an excess of lower limb fragments, with three contexts containing only lower limb fragments.

Given that the small bones of the hand and foot were present throughout the Rayleigh assemblage, it is reasonable to assume that there was no deliberate selection bias during collection from the pyre; this is consistent with results from Spong Hill (McKinley 1994a). However, an urned burial (319) of a probable adult contained an unusual collection of identifiable bone. A small amount of skull and elements of the shoulder girdle (acromion, acromial clavicle and proximal humerus) were the only areas of the body represented. It is possible that this represents selective collection; however, no funerary significance can be readily ascribed to the shoulder, perhaps suggesting a practical explanation such as that other bones were lost when the urn was truncated. Further comments on fragmentation and identifiable remains are held in the archive.

Pyre debris

Quantities of charcoal and burnt stone were noted in most samples during sorting. Pottery sherds had also been removed. The residue of 131 samples (83.4%) contained fuel slag or charcoal, while eight samples (5.1%) contained charcoal only; baked soil was found in six (3.8%) and burnt stone fragments in thirty-six (22.9%). Residues from just four contexts (2.5%) contained no evidence of burnt materials.

Pyre goods

Melted and burnt artefacts, most frequently glass fragments, were noted in a number of contexts during initial sorting of the dried residues and further material was recovered during analysis. This indicates that objects were being placed on the pyre with the deceased. Iron fragments were found adhering to bone from urned burial 141; these are likely to derive from the buckle previously noted in this burial (Tyler and Compton, above). Iron fragments were also noted in burials 301 and 390. Blue-green staining was noted on fragments in burials 30, 79 and 382, and may have derived from melted copper alloy, although no actual copper alloy objects were found in burials 79 and 382. Small heat-shattered fragments of rock crystal were located among the bone in vessel fill 337 (burial pit 335). The unurned burial (296) of a *c*.7-year-old child contained five conjoining fragments of calcined material probably originating from a purse ring (Tyler and Compton, above). The artefact had been burnt at the high temperatures to which the body had been subjected, and appears to have accompanied the deceased at the time of cremation.

II. Cremated animal remains

by Joyce Compton and Natasha Powers

Introduction

Animal bone is a common finding in Anglo-Saxon cremation deposits; however it is not always possible to macroscopically identify bone to species because it tends to be very fragmentary or eroded (McKinley 2000). During analysis of the cremated human remains from Rayleigh animal bone was positively identified in twelve contexts: ten burials and two non-burials. Further cremated animal bone is likely to be present among the many fragments unidentifiable to species or having no diagnostic elements within the cremated bone assemblage. The animal bone assemblage (total weight 136g) mainly comprises small fragments, and all the bone is burnt except for a single pig bone from burial 441. The animal bone identifications were made by A. Pipe and K. Reilly of Museum of London Specialist Services. Pertinent comments on the animal bone have been extracted from the archive report on the cremated human remains (Powers, in archive).

Results

Ten of the animal bone deposits were from cremation burials and, as all but the bone from vessel fill 444 (burial 441) had been burnt, these had evidently been cremated with the body and subsequently collected from the pyre site. All of the burials with animal bone included cremation urns, although it is not possible to ascertain whether these wholly contained the cremated remains due to the fragmentary nature of the vessels. Burial 441 contained two vessels, one of which remained sufficiently intact to still contain the cremated bone. In this case, however, as noted above, the fragment of animal bone recovered from among the mass of cremated bone fragments was unburnt.

Five burials contained sheep/goat remains, one contained a single unburnt pig bone and another contained substantial quantities of cattle bone. The latter, 126, was an adult burial and up to 50% of the total cremated remains recovered from it are likely to be cattle bones, rather than human. The identifiable pieces comprise acetabulum, accessory carpal and vertebral endplate. The numerous animal bone fragments are far less oxidised than the human bone, the former being blue/black in colour, while the rest of the sample was largely well-burnt and white. Burial 415 contained just 24g of burnt bone fragments, most identified as probably deriving from a hare-sized mammal; in addition some fragments could not be identified to species, and it remains possible that they are from a human subadult. There are insufficient remains to be certain of either identification. Two further burials (60 and 229) contained burnt animal bone which was not readily identifiable to species.

Animal bone was also recovered from two non-burial contexts unassociated with the Saxon cemetery. Unburnt sheep/goat tooth enamel fragments came from fill 329 of prehistoric pit 330. This deposit also produced 10g of cremated bone fragments, but these were not identifiable

to species and are probably not human, since the feature also contained quantities of middle Iron Age pottery and burnt flints. Spread 359 produced 18g of heavily abraded and weathered burnt bone fragments, unidentifiable to species. These were much more robust than the cremated human bone fragments in the rest of the assemblage, and closer inspection revealed one 'fragment' to be part of a decorated Victorian clay pipe bowl. It seems likely that this deposit mainly comprised post-medieval burnt food remains.

As the majority of the animal bone fragments are from cremation burials, they may be seen as food offerings deposited on the pyre as part of the cremation ceremony, and included, either deliberately or incidentally, during collection of human remains from the pyre site. Most of the sheep/goat remains comprised rib fragments, which implies inclusion as joints of meat during cremation. Burial 216 contained a sheep/goat long bone that was mostly charred, with only one end showing signs of full oxidation. It had split longitudinally, suggesting that there may have been little meat covering the bone at the time of cremation. The colour and type of the cattle bones in burial 126, however, indicates either that the animal bone was at the edge of the pyre, and thus subjected to a lower degree of burning, or that the entire, or perhaps dismembered, carcass was cremated and was slow to burn. McKinley (1994a) discusses these implications for Spong Hill, where a large assemblage of animal bones was examined. There, sheep/goat bones, especially the ribs, had greater evidence of butchery, implying inclusion as cutlets, and cattle (and other large mammals) seem to have been dismembered, as all parts of these animals were collected, not just the remains of joints of meat (McKinley 1994a, 94).

The unburnt pig bone from burial 441, however, may have been deposited during the burial rite itself, although unburnt bones could still have been collected from the pyre. At Spong Hill, it was noted that immature pig bones were probably derived from suckling pigs which were likely to have been placed on the pyre whole (McKinley 1994a, 94). If this was the case then incomplete cremation is a possibility, especially if the animal was placed on the pyre during a later stage of the ceremony.

The fragmentary remains of the animal bones from Rayleigh preclude further discussion, although it should be noted that few animal bone assemblages from cremation cemeteries, other than Spong Hill, have been examined in detail.

III. Charred plant macrofossils

by Val Fryer

Introduction and method

Plant macrofossil assemblages were extracted from seventeen of the sampled and processed cremation burial deposits. The samples had been bulk floated and flots collected in a 500-micron mesh sieve. As the initial flotation did not appear to recover all of the available plant material (possibly due to a substantial mineral coating on some macrofossils), secondary flotation of the selected samples was also conducted to ensure maximum retrieval of the ecofacts. The dried flots were scanned under a binocular microscope at magnifications up to x16. The plant macrofossils and other remains noted are listed in the archive. Nomenclature within the tables follows Stace (1997). All plant remains were charred. Modern contaminants, including fibrous roots, seeds and arthropod remains, were present throughout.

Results

The recovered flots are all extremely small (none larger than 0.1 litres in volume) and, with the exception of charcoal fragments, plant macrofossils are extremely scarce. Preservation was moderately good, although certain specimens were puffed and slightly distorted, probably as a result of combustion at high temperatures. Single barley (*Hordeum* sp.) and rye (*Secale cereale*) grains were recorded from cremation burial 170 (sample 33), and two further indeterminate cereal grains were noted in cremation burials 258 and 441 (samples 59 and 126). Seeds were only recorded as single specimens within four samples; all were of grasses or grassland plants. Two small fragments of hazel (*Corylus avellana*) nutshell were recorded from cremation burial 530 (sample 143). With the exception of samples 21, 32 and 84 (which comprised single seeds noted during the sorting of the residues), charcoal fragments were common or abundant in all the assemblages studied. Most pieces were small and very rounded or abraded, although some larger fragments were also recorded. Pieces of charred root, rhizome or stem were present within thirteen assemblages, and were particularly abundant within cremation burial 94 (sample 15). In addition, onion couch (*Arrhenatherum* sp.) type tubers were recorded from cremation burials 94, 170, and 530 (samples 15, 33 and 143). Other plant macrofossils were very rare.

Discussion

As a result of the small size of the recovered assemblages, it is not possible to interpret conclusively any of the contexts from which the samples were taken. However, it would appear most likely that wood and/or charcoal was the principal fuel used for cremations, although the presence of charred seeds, roots, stems and tubers within some assemblages may indicate that dried grasses and grassland herbs were possibly being used as kindling for the pyres. Although grains are present within some of the cremation deposits, there are insufficient to indicate the deliberate deposition of cereals as offerings to the deceased, and it is most likely that these accidental inclusions.

Chapter 6. Discussion

I. Place in the landscape

Most of the early Saxon cemetery remains located within the confines of the development area appear to have been excavated. No cremations were found in the trenches to the north of the excavation area and only two randomly spaced outliers were found in the twelve later evaluation trenches to the south-west of the excavation area (Fig. 2). A number of features were located close to the southern limit of the excavation and it seems highly likely that the cemetery continues southwards, beyond the development, across the area of the local 30m high point. One of the earliest cremation burials (167) was found in the south-east part of the excavation area (Fig. 3) and it is feasible that the first burials were interred in this part of the site, or that the cemetery originated on the high point to the south.

No boundaries to the cemetery were identified. This is not uncommon and it may be that the location of the cemetery was marked by the presence of some extant prehistoric or Roman landscape feature, such as a bank or barrow, long since removed. The latter is feasible given the underlying scatter of prehistoric and Roman features and the large area of unexcavated ground above the 30m contour to the south. The Saxon reuse of prehistoric and Roman sites for burial purposes has been noted in Essex and Hertfordshire (Tyler 1996, 114) and recently at Sutton Hoo in Suffolk during excavations for the visitor centre (Taylor 2001, 159).

No known early Saxon settlements are located in the immediate vicinity. The nearest is believed to be at Rawreth, over 2.5km to the west (Fig. 17, EHER 9045), where Saxon pottery was recovered during excavations in 1968 (Drury 1977). Further pottery, possibly from the same, or a nearby, settlement, was recovered from three sites (Shotgate Farm, Shangri-la Culvert and Windmill Hill) in the vicinity of this location during work in advance of the new A130 bypass (Dale *et al.* 2005). These sites and two others with Saxon finds on the road route to the south (Bonvilles Farm and Monument Borrow Pit) were all situated within 2.5 to 3km of the Rayleigh cemetery. Three other sites with a Saxon presence were identified along the A130 route to the north of the river Crouch (Ashdale Bridge, Downhouse Farm and Gorse Wood); of these the nearest was Ashdale Bridge, located close to the river, 3.5km from the Rayleigh cemetery. However, of all the potential Saxon sites on the A130 only those at Ashdale Bridge and Downhouse Farm contained tangible archaeological features. While not indicative of farmsteads or villages *per se*, these sites suggest a dispersed agricultural community settled across this south Essex landscape.

It is possible that the cemetery was used by a nearby, so far undiscovered, early Saxon settlement perhaps situated upon the high ground to the south of the site or on lower ground in the vicinity. Tyler (1993; 1996) has noted, however, that the model of adjacent cemeteries and settlement found at Mucking may not be the norm, and that cemeteries and settlements may more usually be situated some distance from each other, as has been demonstrated in north-west Kent. It is equally possible that the Rayleigh cemetery was used by a number of rural communities spread across an agricultural landscape, the cemetery being a focal point for the collective population. This has been proposed for larger-scale cemeteries such as Spong Hill, which has a suggested elliptical catchment area extending between 8 and 16km from the site (McKinley 1994a, 70). If the Rayleigh cemetery does have a wider catchment area it could reasonably extend for 2.5–3km from the site and include all the lower ground to the north and west, including the A130 sites south of the river Crouch.

The river Crouch is likely to have been a significant local boundary, a natural routeway and of economic significance as a source of fish. The A130 Ashdale Bridge site, where Saxon pottery was recovered from a ditch close to a probable Bronze Age barrow, was located to the north of this tidal river. Dale *et al.* (2005) point out how grave mounds were important in Saxon culture, and how reuse of barrows could be interpreted as the adoption by the incoming Saxons of existing landscape markers into their own system of belief. It is possible that this reuse of the barrow at Ashdale Bridge was for burial purposes, as evidenced elsewhere in the east of England. East–west watercourses were likely to have been important routeways during the period of early Saxon incursion and settlement in eastern England, and given the relative profusion of early Saxon cemetery sites along the waterways of the Chelmer–Blackwater valley to the north, it is surprising that few are known from the Crouch valley.

At an Ordnance Datum of 30m plus, the land to the south of cemetery is the highest point for several kilometres to the north and west (Fig. 17) and is located upon a slight spur that projects westwards from the higher ground of the Rayleigh Hills. Two other similarly sized and elevated high points are located close to Hullbridge, approximately 1.4km and 2.2km to the north-east. Interestingly, Saxon finds comprising a sceat of primary series, a small-long brooch with trapezoidal head and a pyramidal stud or mount have been discovered by metal detectorists from the top of the nearer of the two hills (EHER 13818). Although these finds are slightly later in date than those from the Rayleigh cemetery, they attest to Saxon activity on another localised high point. As the cemetery at Mucking was also located on a 30m high point overlooking the Thames (Hamerow 1993, 2), it seems reasonable to assume, therefore, that Saxon cemeteries in south Essex tended to be located on higher ground and consequently that further sites await discovery in similar locations on the north and south sides of the Crouch valley.

II. Possible inhumation burial

If pit 61 is indeed an inhumation burial then all trace of the skeleton has clearly disappeared as a result of the acidity of the surrounding clay and gravel. Given the collection of accompanying grave goods, the grave is most likely to be

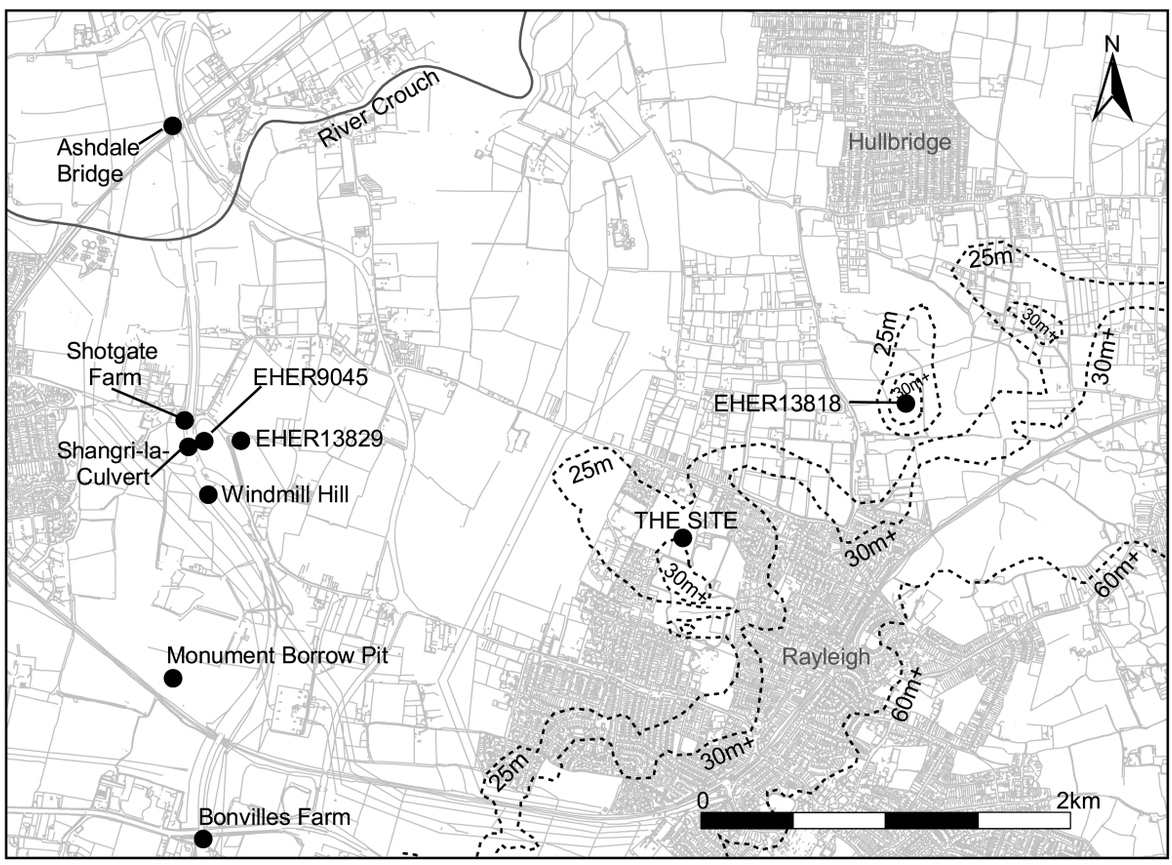

Figure 17 Location of other sites and surrounding topography above 25m

that of a female. Early Saxon inhumation burials containing beads and bead necklaces are well documented and have been found at other cemeteries in Essex, for example at Great Chesterford (Evison 1994).

The fact that the grave was not identified north of the evaluation trench might suggest that it was a cut for a small individual, perhaps a young girl or older woman, or that the occupant was buried with their legs folded up (an elderly female buried with 'her knees nearly up to her chin' was excavated at Great Chesterford: Evison 1994, 31). Whichever was the case, the grave goods had been positioned at the end of the grave close to the feet or head, depending on which way the body was aligned. This would indicate that the goods had been placed in the grave separately and were not part of the clothing or equipment the deceased was buried in.

It is slightly unusual that pit 61 is the only possible inhumation burial within the cemetery. No distinct grave-like features were evident elsewhere in the excavation area and the few grave-sized features investigated all appeared to be simple pits of prehistoric, Saxon or indeterminate date. If the Rayleigh cemetery does continue to the south of the excavated area it is possible that further inhumation burials may be found there. Cemeteries with areas set aside for different types of burial are known; at Springfield Lyons (Tyler 1996, 110–11) parts of the cemetery contained contemporary cremation and inhumation burials alongside each other, whereas other parts were exclusively reserved for cremations or inhumations. Similarly, at Spong Hill (McKinley 1994a, fig. 3), the large cremation cemetery was distinctly separate from the inhumation cemetery.

III. Distribution patterns

(Figs 3, 5, 6 and 7)

Despite truncation and disturbance, a number of conclusions can be drawn about distribution patterns within the cemetery.

The distribution of the graves appears fairly uniform with most cremations well spread, with gaps between cremations generally of 1 to 5m. It is possible that there is a slight north-west/south-east trend, though this may be accentuated by the blank area in the south-west of the site. Only one probable cohesive group of cremation burials (301, 305, 307, 309, 319, 324, 362, 370, 384 and possibly 310) has been discerned, this to the south of post-hole 334, which may have functioned as a marker post. Another post-hole (139), in the south of the cemetery, may have marked the position of adjacent cremation burial 137 (Fig. 5).

A number of other smaller clusters of cremation burials, in twos (*e.g.* 170 and 176) and threes (*e.g.* 378, 408 and 409), are also apparent. It is possible that some of these constitute family groupings and were located by some other sort of marker, perhaps beneath a small mound. With the exception of possible female inhumation 61 and male cremation burial 60, buried *c.*0.4m apart, there are no specific instances of males and females buried close together. There is one instance (burials 144 and 148) of two females being buried close together and a second

(burials 296 and 298) where the burial pit of a female is virtually touching that of a juvenile, which could conceivably suggest that these were the graves of a mother and young child. The two northern-most infant/neonate burials (362 and 425) are located within 0.8m of the next nearest cremation burial. This spacing may be more than coincidental, particularly in the case of burial 362, which is part of the possible kinship cluster south of post-hole 334.

Distribution analysis of items found in the cremation burials indicates that there are no clear-cut correlations between decorated and undecorated vessels, the variety of pyre goods they contain or the age and sex of individuals. Males and females were buried both in decorated and undecorated pots. However, only females were identified, on bead evidence, in unurned graves. Age was no bar to the distribution of beads among females; they were found with adults, a young adult and an infant or neonate.

Four of the nine males identified were definitely buried in plain urns, as were, possibly, two others (with undecorated lower body and base sherds). This suggests that the plain urn was more popular, but the small number of identified males makes this assumption somewhat tentative. Similarly, evidence of feasting, whether actual or symbolic, in the form of secondary vessels (food containers), bucket fittings (for drinking or symbolic of drinking) and burnt/unburnt animal bone would appear to be more prolific among males, with such items occurring in four out of nine male cremations compared with only four out of thirty female cremations.

IV. Pyre/funerary practice

The burial of the cremated remains in the ground comes at what we perceive as the end of a funerary process that commences with the death of an individual. The cremated remains recovered from the Rayleigh cemetery can be used to shed some light on the activities that occur in earlier stages of the process.

The burning of the body on the funeral pyre is a key element in the funerary process and may have been of more importance than the burial of the cremated material in the ground (McKinley 1994a, 92). Little can be deduced from the available evidence of what happened to the corpse prior to its burning on the pyre site. There may have been a time of mourning or a period of lying in state prior to the igniting of the funeral pyre, but there is no real evidence for long-term excarnation. A few of the cremated bones showed some evidence of weathering but this could have occurred post-pyre or more probably post-deposition, during modern clearance of the site.

The basic pyre structure probably consisted of a rectangle of layered timbers with brushwood between, placed either directly onto the ground or over a shallow pit; the body was placed on top of this (McKinley 2000). Environmental analysis has revealed the presence of a small number of grass or grassland seeds and charred remnants of roots, rhizome/stems and onion-couch-type tubers. This material is probably derived from grasses that were placed within the timber structure of the pyre as kindling. Similar grassy material was found at Springfield Lyons (Murphy 2005, 149). The presence of roots and tubers implies that the collection of this grass was a rough and ready procedure.

Aspects such as the whiteness and fragmentation of the cremated bone and the presence of melted glass beads and fuel slag or ash indicate that the firing of funeral pyres was efficient and produced temperatures in the region of 700 to 1000ºC. Individuals were presumably placed on the pyres fully clothed and adorned, as evidenced by dress items such as burnt beads and iron buckles. Animals, or parts of animals (joints of meat), were also placed on the pyre, as were the secondary pottery vessels, which perhaps contained other foodstuffs. The animals represented comprise sheep/goat, cattle, pig and, possibly, hare. All are domesticated or wild food animals; no non-food animals, such as dogs, or higher-status animals, such as horses, both of which were found at Spong Hill (Bond 1994, 121), were present. Generally the animal bones were less well burnt than the human bones and a solitary pig bone remained completely unburnt. The degree of burning may be influenced by the positioning of the animals upon the funeral pyre. For example, those placed on the periphery would clearly not be subjected to as much heat as those placed nearer the centre of the pyre and would be more likely to be thrown clear of the flames when the pyre structure collapsed. Similarly, the time during the cremation ritual at which the animals were placed on the pyre would also influence the level of burning, as those placed on the pyre at an early stage in the firing are likely to be more intensely burnt than those placed on the pyre at a later stage.

The food items and fragments of burnt glass vessels and buckets, the latter probably used for drinking or to symbolise drinking (Morris 1994, 33), suggest that feasting was an important element of the cremation ritual. It is possible that these remains represent a symbolic final meal to accompany the deceased on their last journey and of course, actual feasting may have been carried out beside the burning pyre by mourners as part of the funerary ritual.

The funeral pyre would have burned for several hours and would have been hot for several more. The high degree of bone fragmentation observed might in part be due to stoking or raking of the hot brittle remains, though it is perhaps more likely to be attributable to modern truncation and compaction of the ground. There appears to have been selective retrieval of cremated bone and personal items, such as burnt beads and iron buckles, after the pyre had cooled. The human bone analysis has noted a bias in favour of identifiable fragments of skull, which may in part be due to ease of identification, among the charred pyre debris, by the original collector. In common with other cemeteries (*e.g.* Springfield Lyons: Tyler and Major 2005), only a selection of the cremated material appears to have been collected and incorporated in the graves. This selective selection process is skewed at Rayleigh by the high levels of truncation and disturbance, which have probably resulted in considerably less bone being recovered from the cremations at Rayleigh than was retrieved from cremation burials at Spong Hill (Powers, above).

Just over half of the excavated bulk soil samples from the cremation burials were initially recorded as containing traces of charcoal. This consisted of flecks and tiny fragments of charcoal, mostly in small quantities. Sixteen graves contained higher quantities of charcoal, where the amounts were recorded as frequent or common. Detailed analysis of the residues revealed that 83.4% of the samples contained fuel slag or charcoal, albeit mainly in very

minimal amounts. Overall, however, the quantities of charcoal recovered were far lower than would be expected from the random collection of cremated material from a wood-fuelled pyre site, suggesting that some attempt was made to collect only cremated bone and personal items from the funeral pyre. If this is correct, the charcoal present in the cremation burials represents material accidentally recovered, perhaps adhering to bone or other artefacts. Minuscule amounts of baked clay and fuel ash slag recovered from the burial samples further strengthens the idea of deliberate selection of bone and pyre goods only. Collection of the selected bone and pyre goods from the pyre site is generally assumed to have taken place once the embers were cool enough to work over. The slight weathering to some of the cremated bone, if not modern, might suggest that in some cases a longer period of time was left between the cooling of the pyre and collection of these remains. If so, this may have aided the collection process, as rain showers could have washed away some of the ash and charcoal, revealing the bone fragments and other artefacts. The apparent absence of charcoal from cremation burials has been noted at other cemetery sites, such as Snape (Carnegie and Filmer-Sankey 1993, 108) and Spong Hill (McKinley 1994a, 82).

In samples from cremation burials where charcoal was present, analysis of the charred plant macrofossils and other remains has revealed the presence of a few grains of single barley, rye and other indeterminate cereals. Small quantities of grain were recovered from cremations at Springfield Lyons (Murphy 2005, 149) and from Spong Hill (McKinley 1994a, 91). These cereal grains are believed to be accidental/incidental inclusions derived from cereal plants collected along with the kindling rather than grain deliberately burnt as an offering to the dead, a pagan practice that continued into Christian times and was forbidden in the late 7th-century Penitentials of Theodore (Taylor 2001, 141). However, the possibility that this practice took place as part of the rite for a small number of burials cannot be completely ruled out, particularly if small amounts of cereal grains continue to be recovered from future cremation cemetery excavations.

One cremation burial contained two fragments of hazel nut, an occurrence again paralleled at Spong Hill (McKinley 1994a, 91–2). Nuts are perhaps more likely to be food offerings, although when they amount to only a few fragments the odd accidental inclusion cannot be discounted. A good quantity of hazel nuts was reportedly excavated from a grave at Burwell and they have been recovered from within bronze bowls at Saxon burial sites in Faversham and Croydon (Taylor 2001, 155).

Pyre goods were distributed widely across the Rayleigh cemetery and appear to have been accorded to all ages and both sexes. Most accompanying artefacts appeared heat-affected; the few items (mainly occasional glass beads) that escaped obvious damage were probably shielded from intense heat or perhaps fell from the pyre. In total, 33.1% of the cremation burials contained pyre goods. This is comparable to the contemporary cemetery at Mucking, where 31.2% of the burials contained pyre and grave goods (McKinley 1994a, 86). Conversely, at Springfield Lyons only 16.1% of the cremations contained pyre goods (Tyler and Major 2005). However, Springfield Lyons was a mixed-rite cemetery and so not necessarily directly comparable. The Springfield figure improves to over 24% if all goods in all burials are included.

No convincing pyre structures or sites have been identified, but as these were probably placed on the original ground surface (long since removed) this is not surprising. However, if pyre material (including small amounts of cremated bone) was being deposited in cemetery features, this suggests that at least some pyre sites were not far away. There is a noticeable blank area to the south of the cremation burials, occupied only by pit 129 and a number of other undated pits and post-holes (Fig. 5). Pit 129 contained evidence of *in situ* burning and, nearby, irregular T-shaped pit 83 contained charcoal flecks in its otherwise gravelly fill. However, both lacked any quantity of pyre debris. It is just possible that these pits are the remnants of hollows dug beneath cremation pyres to aid airflow (T-shaped pits were recorded beneath Iron Age pyre sites at Westhampnett: McKinley 1997, 65). As post-holes have been found in association with funeral pyres at Liebenau in Germany (Carnegie and Filmer-Sankey 1993, 108), it is possible that this area of the cemetery was used as a site for cremation pyres.

Three pits (203, 214 and 520) contained possible redeposited pyre debris. One of these, pit 203, contained a relatively large amount of pyre debris and a range of burnt iron objects, including a small knife blade, a spearhead and probable shield board fittings. The spearhead and the shield board fittings are items probably derived from the cremation of a male, whereas melted glass beads recovered from the same pit are more likely to be derived from the cremation of a female. This would imply that pit 203 contained pyre debris from more than one pyre and may have been used to hold material collected from a number of pyre firings. Whether this was done as a mundane tidying or clearance exercise (McKinley 2000), or because the objects were invested with 'other worldliness' by inclusion in the cremation process and required controlled disposal or even formal burial of their own, is unclear. The collection of metal grave goods for reuse as raw material is believed to have taken place at a Migration Period cemetery in Germany (Cosack 1983, cited in McKinley 1994a, 88). Although it is feasible this was the case with pit 203, the metal objects retrieved for raw material would be more likely to have been made from copper alloy rather than iron and a disposal explanation is preferred here.

V. Status

Consideration of the former status of individuals buried within a cemetery is fraught with difficulty, not least, at Rayleigh, because of the unknown amount of material lost through truncation and the fact that the cemetery may continue beyond the excavated area to the south. That said, there is nothing in the collective finds assemblage to suggest that the burials were those of particularly wealthy people or an elite. The finds display similarities with those from other cemeteries (*e.g.* Springfield Lyons, Mucking) and suggest a typical agricultural community.

As in most communities, a few individuals may have been slightly wealthier and this is perhaps reflected in the artefacts recovered from just six of the burials. The gold- and silver-in-glass beads, particularly, are regarded as objects of significance and wealth (Guido 1999, 78). Glass vessels have also been seen as symbols of higher status (Welch 1992, 87), and buckets may fall into the same

category owing to the hours of work involved in their production by skilled craftsmen (Morris 1994, 33).

Lack of wealth within the community as a whole may be indicated by a noticeable absence of jewellery, with the obvious exception of the beads and a solitary glass inset. However, it is possible that items such as bronze brooches were placed on the pyre and were heated to virtual disintegration, which would require temperatures in excess of 1000°C, and may account for the green staining on bones and the globules of copper alloy recorded in a small number of burials. Alternatively, it is possible that the fragmented remains of bronze brooches were deliberately collected for reworking at a later date. Lack of wealth may also be reflected in the small quantity of animal bone recovered, and its presence in only 7% of graves. At Spong Hill, animal bone was present in over 43% of the excavated burials and was considered an indicator of wealth, along with other grave goods (McKinley 1994a, 92). The particular absence of cremated horse bone from Rayleigh is notable, as the horse was regarded as a symbol of status in Anglo-Saxon societies (Pestell 2001, 256–9).

Other than the two spearheads (from non-burial contexts) and a small quantity of possible shield board fittings, no weaponry was identified. This is not unusual, as cremation burials commonly vary from inhumations in this respect. This lack of weaponry, as McKinley (1994a, 89) has pointed out, may simply be a result of the practical difficulties involved in getting a large metal blade weapon into a small cinerary urn.

This apparent lack of status may also be reflected in the morphology of the graves themselves. These appear to be simple burial pits without the augmentation of surrounding ring-ditches, as found at Springfield Lyons (Tyler and Major 2005) and possibly at Ardale School, North Stifford (Wilkinson 1988), or of complex funerary structures, as found at Apple Down in Sussex (Down and Welch 1990). Ostentatious wealth is clearly not present at Rayleigh and it is a world away from the possibly near-contemporary and later 'royal' cemetery excavated 8km away at Prittlewell (Hirst 2004), where wealth and power are clearly demonstrated through the richness of the grave goods and complexity of the funerary structure.

VI. Early Anglo-Saxon cemeteries in Essex

Early Anglo-Saxon cemeteries in Essex fall into two basic types: those containing only inhumation burials and those of mixed rite, containing both inhumations and cremations (Fig. 18). In the latter type, the number of inhumation burials is usually similar to, or greater than, the number of cremation burials. At Springfield Lyons, for example, there were 143 recorded cremation burials and 139 inhumations (including possible inhumations) (Tyler and Major 2005), at Great Chesterford there were thirty-three cremations and 161 inhumations (Evison 1994) and at Ardale School, North Stifford, only one cremation and nine inhumations were excavated (Wilkinson 1988). The exception to this rule, perhaps until now, has been Cemetery II at Mucking, where 468 of the 700 or so excavated burials were cremations (Hamerow 1988, 1). The Rayleigh cemetery now also contradicts this trend and is unusual for Essex in its apparent predominance of cremation burials. However, further discussion on this issue will not be valid until the existence of additional burials (either cremation or inhumation) to the south of the excavation area has been investigated.

Archaeological and historical links between the early medieval peoples of Essex and north Kent have been discussed in several recent publications (*e.g.* Hamerow 1993; Tyler 1996; Tyler and Major 2005). These connections are again apparent at Rayleigh, manifested by some of the rarer designs of pottery stamps. Two particular Rayleigh stamps, the segmented 'S' and the grid diamond, also found in cemetery and settlement contexts at Mucking, have been found in cemeteries across the Thames in north Kent. The segmented 'S' is found at Northfleet and Horton Kirby in the Darent Valley and the grid pattern just at Horton Kirby (Briscoe 1980; Hamerow 1993; Hirst and Clark forthcoming) (Fig. 18). This pottery evidence suggests the movement of trade and craftsmen across the Thames, but it may also indicate a shared social identity and ethnic origins between the peoples of Essex and north Kent. It is plausible that Saxon settlers from one particular region could have landed on, and colonised, opposing sides of the Thames. Tyler (Tyler and Major 2005, 192) has pointed out that pottery found in cemeteries in Essex (Springfield Lyons and Mucking) and north Kent (Horton Kirby, Northfleet and Riseley) shows strong links with areas of northern Germany and the Netherlands. Similarities between pottery from Rayleigh, Mucking and north Kent suggest that the people cremated at Rayleigh may have shared this Saxon heritage.

Lucy (2000, 140) has commented that blank spots on distribution maps of early Anglo-Saxon cemeteries include much of north London, Hertfordshire and Essex. The discovery of the cemetery at Rayleigh has added a dot on the distribution map of early Anglo-Saxon cemeteries in Essex (Tyler and Major 2005, fig. 112a. and Tyler 1996, fig. 1). Importantly, it occupies one of the previously blank areas in south Essex, between the mid-Essex burials of the Chelmer–Blackwater valley (*e.g.* Broomfield and Springfield Lyons) and those along the Thames estuary (*e.g.* Ardale, Mucking and Prittlewell). Lucy suggests that some of these blank spots may be due to their unattractiveness for settlement, but in other cases 'cultural' reasons need to be sought (Lucy 2000, 140). The discovery of the Rayleigh cemetery suggests that there may simply be many Saxon cemeteries that have yet to be found and that are not easily detectable without concerted archaeological investigation. It is worth noting that many of the Anglo-Saxon cemetery sites excavated in Essex to date are located on significant prehistoric sites (*e.g.* Springfield Lyons) or on Roman settlements (*e.g.* Great Chesterford), or close to Roman roads (*e.g.* Barrow Field, Feering: Beaumont 1888) and were thus more likely to be recorded by antiquarians and archaeologists than those on virgin sites in the countryside. The argument that this is a problem of detection is also substantiated by the identification of a Saxon presence on at least six previously unknown rural sites during archaeological work on the route of the new A130 between the junction with the A12 at Chelmsford and the A127 at Rayleigh (Dale *et al.* 2005).

VII. Conclusions

The excavation of a previously unknown early Anglo-Saxon cemetery at Rayleigh has demonstrated the likelihood that further undiscovered cemeteries exist

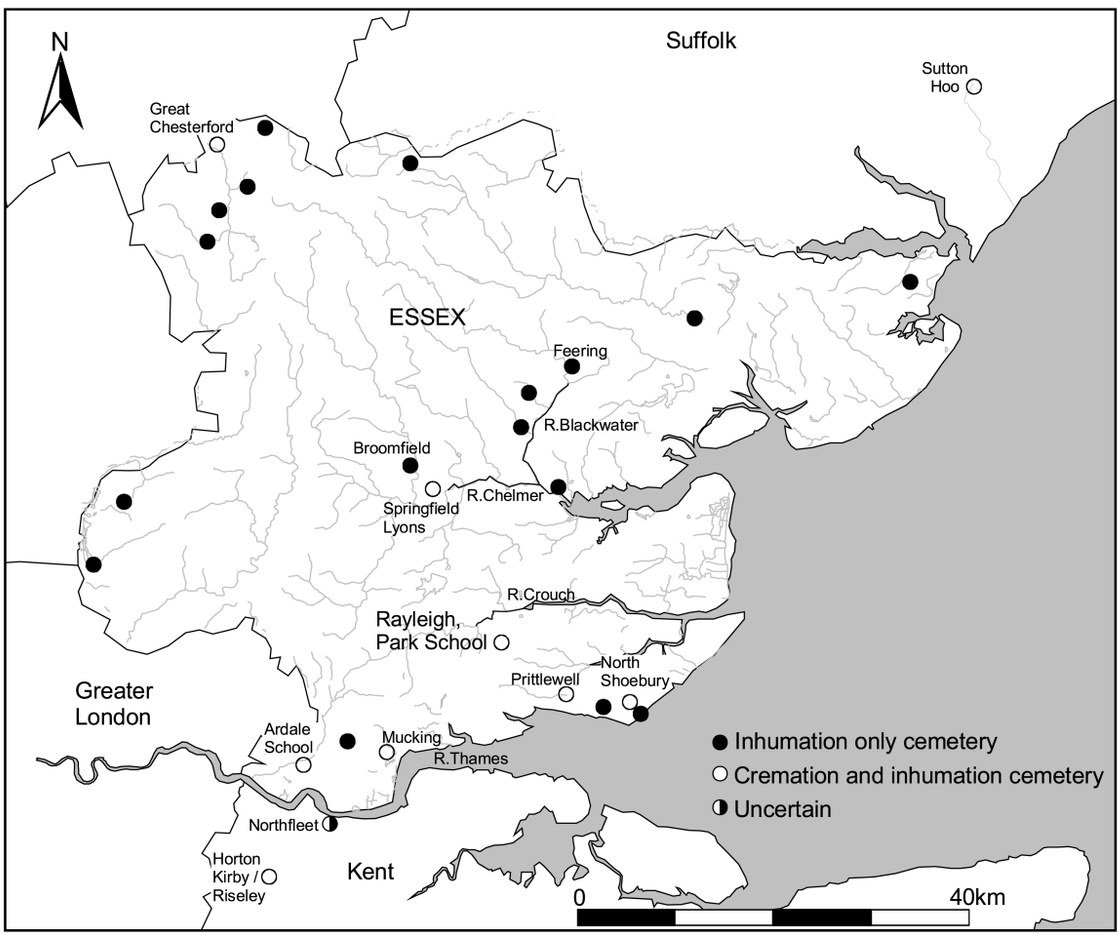

Figure 18 Early Anglo-Saxon cemeteries in the region

across the Essex landscape, perhaps especially in the vicinities of rivers penetrating the east and bordering the south of the county. The cemetery is unusual for Essex in that it apparently consisted predominantly (possibly exclusively) of cremation burials rather than the more normal mix of cremation and inhumation burials. However, the cemetery is probably incomplete and may well have continued beyond the development area to the south. Any opportunity to investigate this area would be of the highest priority.

The excavation of 145 cremation burials at Rayleigh has increased considerably our knowledge and understanding of early Anglo-Saxon cemeteries in south Essex. The data will not only provide a useful addition to the existing corpus of published cemetery material from eastern England, but may also aid our understanding of kinship groupings between the early Saxon settlers of Essex and north Kent.

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Index

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East Anglian Archaeology

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