

HAMPSHIRE



FIELD CLUB

MONOGRAPH 4

GENERAL EDITOR

K E QUALMANN

AN
ANGLO-SAXON CEMETERY
AT ALTON, HAMPSHIRE



Vera I. Evison



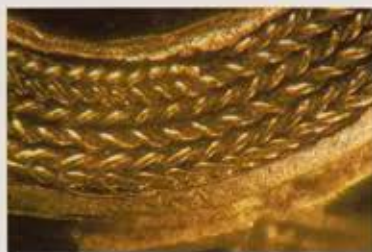
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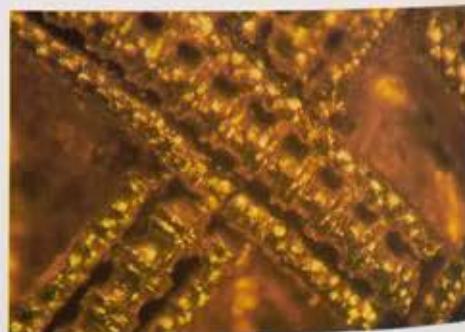
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Frontispiece. Alton Anglo-Saxon cemetery: colour photographs of buckle 16.2 a) the buckle, scale *c* 1:1; b) detail of bird's head on shoulder; c) garnets on tongue base; d) pseudo-plait filigree on loop; e) niello inlay on loop; f) fragment of plate; g) detail of filigree.

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Editor: Kenneth E Qualmann

An Anglo-Saxon Cemetery at Alton, Hampshire

by Vera I Evison

with contributions from

D Allen, D Brothwell, A Cameron, V Cooper, E Crowfoot, D Gurney, S La Niece, R Powers
and P Wilthew

Published by the Hampshire Field Club
1988



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HAMPSHIRE FIELD CLUB MONOGRAPH 4
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Grateful thanks must be expressed to Mr H F Pink senior, the late Mr H F Pink junior and Mr R E C Barnes who allowed excavation to take place in their back gardens. Staff of the Historic Buildings and Monuments Commission (England) who did much to further the project are: Glynis Edwards and Jacqui Watson, conservation; Frank Gardiner, Mr J Thorn, Claire Thorne and Yvonne Brown of the drawing office; and Sarnia Butcher and Ann Clark in administration. Conservation of much of the non-ferrous material was carried out at the Institute of Archaeology, University of London, and the objects from graves 1-5 were conserved by the Hampshire County Museum Service. The rest were conserved by the Ancient Monuments Laboratory.

The animal bones and teeth were identified by Mr A Carrant of the British Museum (Natural History). Valerie Cooper and Margaret Hardie were of great

assistance in many ways, Valerie Cooper contributing Fig 10 with the list of early Anglo-Saxon sites in the Alton area, the catalogue of the beads and the bibliography. The photographs on plates I and II were provided by the Photographic Department of the Historic Buildings and Monuments Commission (England); plates III - V are enlargements of the excavator's photographs by Mr J Wild, Photographic Department, Birkbeck College; and the colour plate is by Bob Holmes of the Hampshire County Museum Service. Figs 1, 2 and 10 are based on Ordnance Survey maps with the permission of the Ordnance Survey. Premises and other facilities were provided by Birkbeck College, University of London.

The manuscript was completed in March 1986, and no account could be taken of publications after that date.

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Chapter 1

Excavation

In the summer of 1960 foundations for a new bungalow were being dug in Mount Pleasant Road, Alton, Hants, when skeletons accompanied by grave goods were found. Mr C N Gowing, then curator of Alton museum, excavated five more graves adjoining this area, one partly under the house in the front garden and four in the back garden. The objects recovered included weapons, a bucket and a pot, indicating an Anglo-Saxon cemetery of the fifth or sixth century, and a rescue excavation was begun under the auspices of the Inspectorate of Ancient Monuments. The site available was the back garden of the bungalow 'Cortina' then occupied by the late Mr H L Pink junior who kindly gave permission for this invasion. It was necessary to excavate by hand as the garden contained a greenhouse, a concrete path, various piles of topsoil and hardcore, and a two foot thick layer of imported topsoil on top of the six inches of topsoil which originally covered the rock chalk. This chalk, unfortunately, was much fissured and mixed with clay so that the grave fills did not show in very clear contrast. Mr W G R Latchem, from the staff at Dover Castle, a few local workers and occasionally one or two students from Birkbeck College, University of London, assisted in the excavation.

The site is on the crest of a sharply rising slope on the east side of the valley containing the spring which is the source of the River Wey (SU 718388; Fig 1). The plot for the bungalow 'Cortina' is limited on the east by a north-south hedge, shown on Ordnance Survey maps dated between 1858 and 1873, which had given slight protection to a strip of topsoil, most of which otherwise had been turned over by the plough to chalk level. It soon became evident that the cemetery extended east of this hedge and, as this plot belonged to Mr H L Pink senior who kindly gave permission, it was possible to investigate this garden also. The excavation extended from the 28th August 1960 to the 19th October 1960 when all the areas available had been investigated.

Fig 2 shows the areas in the gardens of the two houses which it was not possible to excavate. The buildings were surrounded by concrete paths, a spur of which crossed the position of grave 1. Grave 5 had been found at the northern edge of 'Cortina' when the foundations were dug. A greenhouse was built in the middle of one side of the garden over the spot where grave 2 was discovered. A stretch of concrete path had been laid down the middle of the garden,

leading to an area at the bottom which could not be investigated because of crops and compost heaps. For similar reasons it was necessary to leave an area in the middle and bottom of the 'Scylla' garden.

There was no evidence of disturbance of the Saxon graves or of any subsequent human activities apart from two shallow foundation ditches for a modern pig sty in the 'Scylla' garden. A low brick retaining wall was based on a shallow foundation, so that it ran over, without disturbing, grave 15. Roman debris in the topsoil is represented by a Roman coin, the brass neck of a flask and a lead weight (U 12, 13 and 14). Later finds are a silver coin of 1565 and a bronze counter.

The cemetery continued to the edge of the plot adjoining to the west, but permission to excavate in that garden was not forthcoming, and as some graves were detected partly in that area it was necessary to stop short of full excavation.

It seemed likely that the cemetery could extend to the plot further west. Permission to excavate was given by the owner, Mr R E C Barnes, who also owned the plot to the south of the 'Cortina' garden, and accordingly excavation was resumed on the 24th May 1961 until the 7th July 1961. The uneven limit to excavations on the west side is due to the withdrawal of labour which happened without warning and, in the northern part, to the necessity to preserve a front lawn. In the following October Mr Humphreys, who owned a plot west of Mr Barnes' house, found skeletons and grave goods under his garage (grave 49). In more recent years the skull of a skeleton was discovered as far west as the railway bridge.

Only parts of this cemetery have therefore been investigated. It is probable that limits have been found to the east and south, but extension across the middle of the area and in a north-westerly direction is certain.

As measurements in 1960 were taken in feet and inches, these units are used in respect of grave measurements in the catalogue followed by metric equivalents. Measurements of objects are given in metric units only.

In inhumation burials grave goods were usually lying on the floor of the grave, or perhaps on any remaining bones. Any occurrence above grave floor level is noted in the catalogue.

The finds are in the possession of the Hampshire County Museums Service and are housed at Chilcomb House, Winchester SO23 8RD.

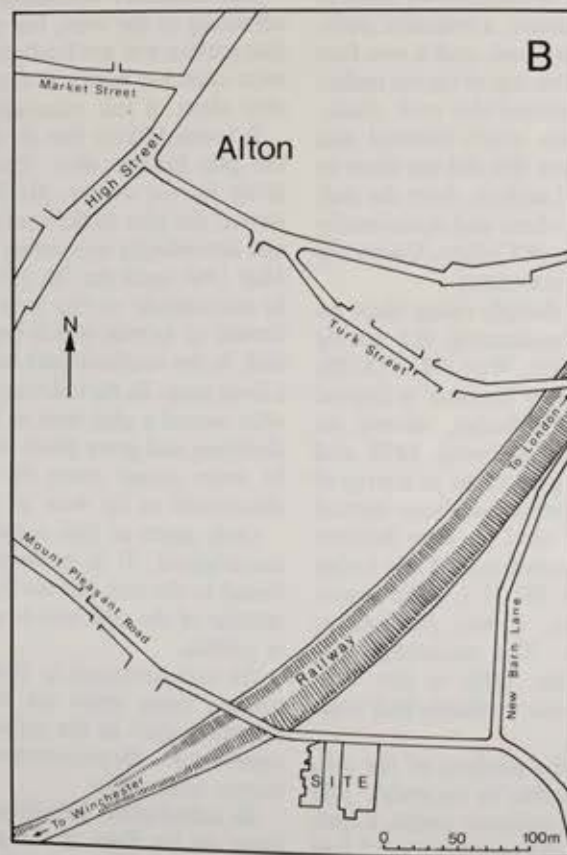
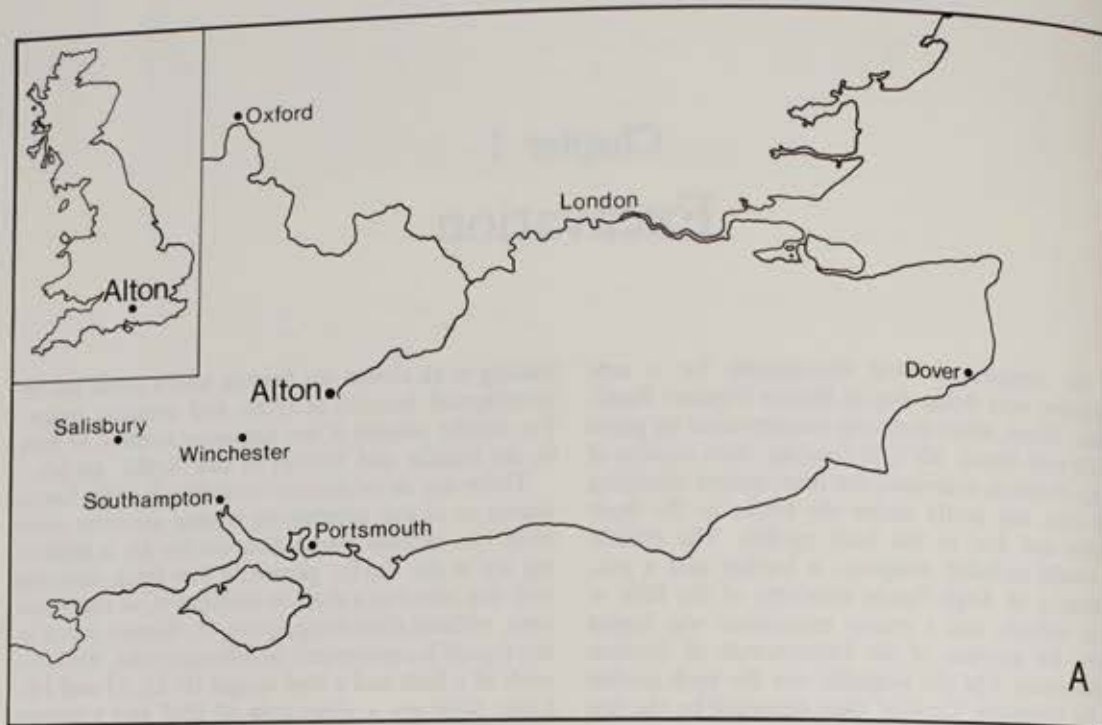


Fig 1. Location of A) Alton in central southern England and B) the Anglo-Saxon cemetery site within Alton. Crown copyright reserved.

A note on 1986 discoveries by David Allen

In February 1986, work commenced on an extensive housing development immediately to the west of Mount Pleasant. The developers, Bryant Properties Ltd, kindly granted permission for examination of their soil test pits, and this was carried out by Mike Hughes, David Allen and Richard Hewitt.

A single extended inhumation, oriented west-east, of a juvenile male, accompanied by an iron knife and buckle, was revealed, recorded, and lifted. The burial was located in a shallow grave cut, and had suffered considerable plough damage.

The grave was situated some 3.0m west of the Mount Pleasant garden boundaries, just to the right of the label 'Head' on Fig 2. In June 1986 an area c 20m × 12m centred on the burial, was examined by David Graham and members of the Alton Archaeological and Historical Society. No other features of Saxon date were recorded, and the grave is presumably an outlier to the cemetery, being some 9m distant from the nearest known burial.

The skeleton and grave goods are housed with the Hampshire County Museum Service, Accession No A1986.6.

Grave

Weapons

Swords

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Chapter 2

Grave Goods: Discussion of Types

Weapons

Swords

The sword in grave 1 (Fig 22 1.1) is of normal length and width for an Anglo-Saxon sword (87.2 × 4.5cm) and has no fittings save the remains of a small iron pommel with a curved top. The accompanying shield boss has knob-headed rivets and strap grip, and one of the spears is as long as about 40.5cm with a parallel-sided blade, so that the date of the grave should be in the first half of the seventh century. Grave 16, like grave 1, was orientated south-north, and its shield boss is conical with knob-headed rivets and strap grip, and the accompanying ornate buckle ensures an earlier date in the seventh century. As befits the richest grave, the sword (Fig 27 16.1a) is the longest in the cemetery (92 × 5cm), and it has bronze grip sleeves which should be of similar date. It may be compared with the sword in grave 98 at Dover, Kent (Evison 1987, 317, Fig 46 98/1b), which has comparable guards in silver and belongs to phase 3, AD 575–625. The bronze pommel, however, has incurved sides and a hole at the top for the tang, a type known from early contexts, such as Chessell Down, Isle of Wight, and Collingbourne Ducis, Wiltshire (Evison 1967, Fig 10c; Evison 1987, 23).

The sword in grave 2 was accompanied by two beads, the position of one bead was about 23cm from the end of the tang, but the position of the other is unknown. This grave was in a southwest-northeast direction, and the associated shield boss with disc-headed rivets, the sword beads and the bone and iron buckle plate denote a date in the late fifth or sixth century. Sword beads have been discussed elsewhere (Evison 1967; Evison 1976; Evison 1987, 23; Menghin 1983, 142–4).

The sword in grave 42 also had a sword bead, this time an amber, wedge-shaped bead. A list of amber sword beads is given in Menghin (1983, 356, type 1b), and of glass sword beads (355–6, type 1a). Sword 42.1a also had a bronze plate and U-sectioned edging to the tip of the scabbard, and further bronze edging towards the top of the scabbard to accommodate the suspension strap (Fig 35 42.1a). Similar fittings are common on fifth and sixth-century swords, *eg* Faversham, Kent, and Selmeston, East Sussex, grave 1 (Evison 1967, Fig 3j; Evison 1976,

Fig 3a). This comparatively early dating is confirmed by the boss with disc-headed rivets in Alton grave 42. The sword was lying with the bronze plates underneath, and as the heads of the three rivets in two sets fixing the top of the binding were on the upper side, the show side of the sword must have been the upper one without the plates. This would seem to indicate either that similar metal plates on the front had been lost, or that there was other decoration on the leather of the scabbard.

Side mounts of the type on 42.1a are listed and plotted on a distribution map by Menghin, which shows that they occurred in the Rhineland, northern France and England, with a few in Italy and Scandinavia. The scabbard end mount he regards as a type 2c, and this has a distribution almost exclusively in northern France (Menghin 1983, 350, Karte 17). He considers that it belongs to his period C, AD 530–70, and that the side mounts lasted from the early sixth to the seventh century (Menghin 1983, 139, Abb 79).

It has not been possible to acquire radiographs of swords 1.1 and 2.1a in the possession of Alton museum. The other two, however, show pattern-welding, and 16.1 has a double layer of four rows of pattern-welding, alternately straight and diagonal lines. Sword 42.1a has three rows of straight and diagonal lines, probably in a double layer. The observation, therefore, that pattern-welding manufacture in four zones or more did not begin before the middle of the sixth century holds good at Alton as it did at Dover (Koch 1971, 98; Evison 1987, 25). The pommel type 16.1b occurred frequently on the Continent and also in Scandinavia (Menghin 1983, 319–20, Karte 4). Menghin's estimate of the beginning of the type in period B, AD 480–530, seems too late in view of the other forms of rivetless, tang-held pommels which are amongst the earliest types (Menghin 1983, 137, Abb 77, *eg* Nydam 308. 19 and 20, Kragehul 318.120); but it also occurs in seventh-century contexts (Offanengo, grave 3, Italy, Menghin 1983, 281).

The sword in grave 2 is also fairly long, 90.8cm, and has decoration of a gilt-bronze fluted band at the scabbard mouth (Fig 22 2.1a). Menghin's distribu-

tion map of this type of scabbard mount, combined with others of ridged pattern which are ornamented with niello, shows a concentration in England, with only a few on the Continent and in Scandinavia (Menghin 1983, Karte 12, type 3b, Kempston-Mitcham; Evison 1987, Fig 46, 96b/10b). They date from AD 480-570.

Grave 4 contained two knives, one of which (Fig 24 4.4) is 27.1cm long, and as this was a late grave belonging to the time when the seax was beginning to come into use, it seems likely that 4.4 should be regarded as a weapon. A larger example of this shape with angled back (see type 3 knives below, 23) occurred at Dover grave 65 (Evison 1987, Fig 36 65/3).

Spears

There is a great variety of spears, hardly any two of them belonging to the same type. Some of the spearheads from Alton - 1.2, 1.3, 2.2, 2.3, 4.1, 16.5 and 16.6 - were included by Swanton in his study (1974, 29). Taking them in the order of Swanton's types (1973, 1974), there is one C2 (U 1, Fig 38), a leaf-shaped type in use throughout the early Saxon period. An especially small spear, 4.2 (Fig 24), has an oval blade with slight indications of a mid-rib, but otherwise the proportion of blade to socket puts it in Swanton's D1 type. Spearhead 40.1 (Fig 34), a long, narrow angular type, is E3 which belongs to the sixth and seventh century. The 1.2 spearhead (Fig 22) has a narrow blade longer in proportion to the socket, and is classified as E4 by Swanton, a type of the late sixth-seventh century. Item 16.6 (Fig 28) is classed by Swanton as type F1, an angular type, and 4.1 (Fig 24) as type F2. Spearhead 1.3 (Fig 22) is classified as G1 by Swanton.

A number are variants of the H type which has an S-curve above the widest part of the blade: H1 - 6.1 36.1 and 44.1 (Figs 24, 33 and 36); H2 - 2.3 and 42.5 (Figs 23 and 35); H3 - 45.1 (Fig 36). These belong to the fifth and sixth centuries. Spearhead 49.1 (Fig 37) is type I1, broad near the base of the blade with a groove on the left side of each face and an S-curve contour, a type belonging to the fifth to early sixth century and centred on Hampshire. Stepped sections of the J type are visible on 7.1 and 34.1 (Figs 25 and 32), and also on the type K1 spearhead with a more curved outline, 2.2 (Fig 23), which often occurs in fifth-century contexts. There are five spears at Alton which fall into the general category of spears with corrugated blades, that is, stepped or grooved. The larger spear in grave 16 (Fig 28 16.5) is slightly stepped, but this has been classified as E2 by Swanton. Its blade is practically diamond-shaped, and the nearest example seems to be a spear from Fairford (Gloucestershire) included by Swanton in his series L. Three of these spears are unusual, however, 2.2, 7.1 and 16.5 (Figs 23, 25 and 28), for it is the right-hand side of the blade which is depressed, and according to Swanton it is always the left-hand side which is depressed (Swanton 1973, 115, note 1),

with one exception, a spearhead from the City of London (London Museum inv no 29 94/13).

There seems to be no correlation between the date of deposition and the length of the spearheads, and the longest, 45.1 (Fig 36), occurred in an early grave, while the next longest, 1.2 (Fig 22), occurred in a later grave. Two of the H2 type spears were tipped with a conical ferrule, 42.5b and 2.3b (Figs 35 and 13). In grave 2 there were two spearheads, but the ferrule was in line with 2.3a, giving a total length to the spear of 7ft 6in (2.29m). In grave 42 the length of the spear was 5ft 10in (1.78m).

A single spear occurred in nine graves and two spears in four graves. In three of the graves with a pair, the larger spear was broad-bladed (in graves 2, 4 and 16), but long and sword-like in grave 1. In each of these graves the second spear was smaller, very much smaller in grave 4, but only 6cm smaller in grave 16. It seems likely that the smaller spears were for throwing and the broader, larger blades for use in the hand. The four graves with two spears each were close together, and three of them were orientated south-north.

Table 1. Alton Anglo-Saxon cemetery: spearheads, lengths and types.

Catalogue Number	Length in cm	Swanton Type
1.2	34.6+, 5.9+	E4
1.3	22	G1
2.2	39.5	K1
2.3a	24.1	H2
2.3b	(ferrule)	-
4.1	32.1	F2
4.2	14.3	D1
6.1	20.2	H1
7.1	23.9	J
16.5	26.4	L
16.6	20.4	F1
34.1	22.5	J
36.1	18.7	H1
40.1	33.5	E3
42.5a	24.8	H2
42.5b	(ferrule)	-
44.1	17.5	H1
45.1	43.8	H3
49.1	20.5	I1
U 1	21.5+	C2

Decorative grooves are visible on the sockets of spears 4.2 and 16.5 (Figs 24 and 28), and regular, denser, horizontal zones visible on the radiograph of the socket of 16.6 (Fig 28) suggest possible decoration here also. On the right-hand side of the broadest part of the blade of spearhead 6.1 there is a circular hollow. As this is the position often occupied by an inlaid ring of another metal on spears of this type (Evison 1955, plate III c), it is probable that this is the scar of an inlay now lost. Inlaid decoration is particularly vulnerable to loss, for rust forms under-

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Table 1

Disc-h
Knob-h
Diamet
Height
Extend
Strap
Button
Spike
Iron or

Table 3

Grave

1
2
4
6
7
16
34
36
40
42
44
45
49
U1

neath the other metal of the ornament and ejects it. This must often have happened in the grave, and it can also happen after excavation (Hässler 1981, 73). Similar circular traces in these positions are visible on spears 7.1 and 34.1 and on their X-rays.

As to the positions in which the spears were deposited, one spearhead was placed on the face of the man in grave 7, one at the left shoulder in grave 44, to the left of the skull in graves 1 and 16, and to the right of the skull in graves 2, 4, 6, 34, 36, 40, 42 and 45. In grave 16, the inward-curving wall of the grave was cut back to allow the two spearheads to rest flat on the floor of the grave, otherwise the spearheads were about 3 or 4 in (8 or 10 cm) above the floor, with the tip slanting upwards. In grave 34, the spear was on a level with the top of the skull, and in grave 2 the large spear was about 3-4 in (8-10 cm) above the floor, but the smaller spear was at a level higher than the bucket, *c* 5-6 in (*c* 13-15 cm).

The traces of wooden shafts in the sockets can be identified in some cases: hazel in 34.1, 44.1, 45.1; ash in U1, 7.1, 49.1; ash from mature timber in 40.1; and willow or poplar in 36.1 (identified by Jacqui Watson).

Shields

Two of the shield bosses, 2.5a and 42.3a (Figs 23 and 35), are of the type with a wide flange and six disc-headed rivets, a slightly convex dome with carination, and a button top. Their dimensions are similar, diameter *c* 16 cm and 15 cm, with heights 8.5 cm and 8 cm. Both were accompanied by a strap grip with straight edges, and in addition there were one iron and three bronze disc-headed rivets on the shield, 42.3c-f.

Three others also have slightly convex domes, but without pronounced carination, and finish in a spike at the top: 1.4a, 4.3a and 16.7a (Figs 22, 24 and 27). The five rivets in their narrower flanges have small, knob heads, and the strap grips widen at the ends. In graves 1 and 16 there were also disc-headed rivets on the shield, two bronze-covered iron in 1 and three iron in 16. As to dimensions, the bosses 1.4a and 4.3a are narrower at 12.8 cm and 12.9 cm respectively, and the heights are lower, *c* 7 cm and 7 cm. The boss 16.7a has a diameter of 13.4 cm, and with a height of 11.2 cm, belongs to the series of tall straight cones which occurred in the seventh century (Evison 1963, 42-4, Figs 19c-j, 20).

Table 2. Alton Anglo-Saxon cemetery: shield characteristics, by grave.

	Grave							
	1	2	4	16	42	45	49	
Disc-headed rivets	-	X	-	-	X	X	X	
Knob-headed rivets	X	-	X	X	-	-	-	
Diameter less than 15 cm	X	-	X	X	-	X	X	
Height over 8 cm	-	X	-	X	X	X	-	
Extended grip	-	-	-	-	-	X	X	
Strap grip	X	X	X	X	X	-	-	
Button top	-	X	-	-	X	-	-	
Spike top	X	-	X	X	-	X	-	
Iron or bronze discs	2	-	-	3	4	3	-	

Table 3. Alton Anglo-Saxon cemetery: weapon distribution, by grave.

Grave	Sword	Spearhead	Ferrule	Shield
1	1	2	-	1
2	1	2	1	1
4	?seax	2	-	1
6	-	1	-	-
7	-	1	-	-
16	1	2	-	1
34	-	1	-	-
36	-	1	-	-
40	-	1	-	-
42	1	1	1	1
44	-	1	-	-
45	-	1	-	1
49	-	1	-	1
U1	-	1	-	-

The boss in grave 45 (Fig 36 42.2a) is another form altogether. Although the diameter is not very great, 13cm, the height is increased to 9.7cm by a spike projecting from a concave dome. There were four disc-headed rivets on the flange, of which two remaining are iron and one silvered bronze. The grip has upturned edges in the middle, and extends to a length of 39cm. The boss fragments from grave 49 (Fig 37 49.2a) also show tinned bronze disc-headed rivets on the flange and the ends of an extended grip, so that although it is impossible to identify the exact form, it could have been similar to 45.2a.

These two last-mentioned bosses (45.2a and 49.2a) have disc-headed rivets that are silver in colour, possibly tinned bronze. This is an embellishment to be found on shield bosses of the late fifth and early sixth century in England and on the Continent (Werner 1962, 32, distribution map Taf 68, 1; Kennett 1974, 62-4; Evison 1987, 34). Ornamental discs on two of the shields are of iron, 16.7 c-e and 45.2c-e (Figs 27 and 36). In grave 16, 7c and d were together on one side of the boss and 7e on the opposite side 30cm away. Similar positioning was seen in grave 45, where 2c and d were near one end of the extended grip and 2e near the other end about 40cm away. The two discs in grave 1 were covered in bronze, and two bronze disc-headed rivets 42.3c-d were placed on the shield on one side of the boss, and one bronze and one iron rivet 42.3e-f, were together on the other side about 40cm away. These differences in the appearance of the rivets no doubt had some significance, probably concerning rank.

Additional fittings to the shield may be noted in grave 16 where 16.7f is a small, dome-headed rivet and 16.7g an iron buckle (Fig 27), no doubt fixed to a suspension strap. A small dome-headed rivet often occurred on the late shields (Evison 1963, Figs 18d, 22e-f, 27i, 29e, 30f and 34f). The bronze sheet fragments 42.6a and b (Fig 35) were probably attached near the edge of the shield for marking or ornament. No doubt they were originally together at the position shown for 42.6a, but 6b was moved with the cranium when that was dislodged by animal action.

In the Dover cemetery, shield bosses occurred only in phases 3 and 4, and carinated types with five disc-headed rivets belonged mostly to phase 3, AD 575-625, knob-headed rivets to phase 4, AD 625-50 (Evison 1987, 139, Fig 26). Extended grips like those in graves 45 and 49 at Alton belonged to the earlier types, and the strap grips, as in the rest of the Alton graves, to the later types.

The boss type, 45.2a, did not occur at Dover, but similar forms are known from Hampshire, *eg* Droxford (Aldsworth 1978, Fig 43.139, 142), and from Winnall I there is a boss with concave dome and four tinned bronze disc-headed rivets, although it is more waisted and with button top (Meaney and Hawkes 1970, Fig 4.1). As noted by Baldwin Brown, the form is derived from continental forms of about AD 400 (Brown 1915 III, 200, plate XXIII 4-6; Böhme 1974, 112-14, Abb 46), and three examples are known in England, at Mucking, Essex, and Rich-

borough, Kent (Evison 1981a Fig 7f; Hawkes and Dunning 1961, Fig 5). The form in grave 45 at Alton shows considerable development from these, in the increased height of the waist and consequent emphasis on carination, but it is still likely to be a product of the fifth century.

Three of the bosses with disc-headed rivets were from known graves, and these were all orientated southwest-northeast. The three knob-headed rivet bosses were all in graves orientated south-north.

Jewellery

Square-headed brooch

The square-headed brooch, C31.2 (Fig 42), has been lost and is known only from the measured sketch and description made in the field on the day of discovery. It had been burnt and deformed by the heat, so that at the time of excavation it was not evident whether it was of bronze or silver. The head was decorated with a chip-carved leg and claw with two curved thigh lines and other ornament, probably a rudimentary body. The bow had longitudinal moulding and the foot a lozenge-shaped design. It belongs to the series of small Kentish square-headed brooches of the first half of the sixth century (Leeds 1936, plate XV), but some of this type were found in the cemeteries at Mucking. A pair of similar size and design, but with a rectangular terminal, occurred in grave 99 in cemetery 1. A pair with two claws instead of one in the head panel and again with rectangular terminal was found in grave 843 in cemetery 2, and one with a scroll in the place of the claw occurred in grave 814 in cemetery 2. A square-headed brooch with a crude single leg design on the head but with rectangular terminal occurred in the nearer cemetery of Guildown, Surrey (Fig 10.36), in grave 113 with an amber bead (Lowther 1931, plate XV 5).

Small long brooches

The woman in grave 43 was wearing two small long brooches (Figs 35 43.1-2, 47) and amber beads. Both brooches had a spatulate foot, one with a square head and the other a cruciform head called a 'cross potent' by Leeds (1945, Figs 8 and 9). A similar combination of brooches occurred in inhumation 2 at Spong Hill (Norfolk) where they were associated with an annular brooch, glass beads and a pair of florid cruciform brooches which belong to the sixth century. On the other hand, the same type of square-headed small long brooch appeared in graves 14 and 19 at Collingbourne Ducis (Gingell 1975-6, Fig 16.5-6; Fig 18.4-5), amongst graves belonging to the fifth century, and they are likely to have been heirlooms at Spong Hill. The distribution of both types was shown by Leeds to be concentrated mostly in the Cambridge region (Leeds 1945, Figs 9 and 19).

Saucer brooches

The five-spiral saucer brooch (Fig 39) belongs to a type already in use in the Elbe and Weser region running from each side of the continent found on continental sites with an equal (Böhme 1974, Taf 10.1) brooch, as is the case with the Myres and also bears spurred (Fig 39) of the five-spiral type from grave 46 at Alton (Fig 22a). One (Evison 1987, 48) was paired with a brooch of the first half of the sixth century (Fig 22a). The Alton brooch in that a small spiral is a fair size they are large (2.8cm, and the rivet is 1.8cm). The dating attributed by Dr Welch appears warrants. One found in association with other sixth century objects: Figs 17 and 88 mentioned by him (Evison 1987, 48). Dr studies of these saucer brooches that they started in the fifth century dated by their association with half of the fifth century in the earlier sixth century. Alton of glass beads with bosses, triangular in shape, of the sixth century.

The saucer brooches (Figs 12.1 and 2 (Fig 2) and these are decorated with a heading on the outer border and a spiral pattern occurring on the inner but, as they are taken that they were not prototypes (Evison 1987, 48) cannot by any means be associated with the saucer brooches of the sixth century at Abington, 1936, 37, 50, plate 10.1, Mucking, could be regarded as supporting the view that the scroll design was a five-spiral design. Dr T. seven-spiral design

Saucer brooches

The five-spiral saucer brooches in Cremation 1 (Fig 39) belong to a well-known early type which was already in use in the area between the mouths of the Elbe and Weser before the migration. An extension running from each spiral to the border is a trait to be found on continental brooches such as that associated with an equal-arm brooch in grave 3 at Nesse (Böhme 1974, Taf 31.2). This is a composite cast brooch, as is the Caistor-by-Norwich (Norfolk) brooch (Myres and Green 1973, plate XIXc), which also bears spurred spirals. Amongst other examples of the five-spiral saucer brooch in England is one from grave 46 at Alfriston, East Sussex (Welch 1983 ii, Fig 22a). One was found in grave 48 at Dover (Evison 1987, 48, Fig 27, 48.2, Fig 112), where it was paired with a button brooch in a well-furnished grave of the first phase of the cemetery, AD 475–525. The Alton brooches are similar to the Dover brooch in that a small 'spur' runs from the spirals to the borders and the only other decoration apart from the spirals is a faint beading on the border. Otherwise they are larger, diameter c4cm, as opposed to 2.8cm, and the rim is at a wider angle.

The dating attributed to these five-spiral brooches by Dr Welch appears to be later than the evidence warrants. One found in an Anglo-Saxon grave does occur in association with undeniably early sixth-century objects: Highdown (West Sussex) grave 2 contained three small square-headed brooches along with the beads, buckle and knife (Welch 1983 ii, Figs 87 and 88). But all other distinctive contexts mentioned by him belong to the fifth century (Evison 1987, 48). Dr T Dickinson informs me that her studies of these saucer brooches lead her to believe that they started in the fifth century. A few can be dated by their associated grave goods in the second half of the fifth century, but far more were deposited in the earlier sixth century. The associated objects at Alton of glass bead, iron ring and the pot decorated with bosses, triangles and dots indicate the fifth century.

The saucer brooches with seven-spiral design, 12.1 and 2 (Fig 26), also have spurs to the spirals, and these are decorated with tooling to imitate beading on the part which extends outside the neighbouring spiral. Further beading decorates the outer border and the ring round the central knob. This pattern occurs on three brooches on the Continent but, as they are unassociated, the view could be taken that they were exports from England rather than prototypes (Welch 1983 i, 47), although this cannot by any means be regarded as certain. The associations of this type of brooch in graves 34 and 102 at Abingdon, Oxfordshire (Leeds and Harden 1936, 37, 50, plates X, XVI), and grave 639 at Mucking, could belong to the fifth or early sixth century. The larger size of the brooch might also be regarded as supporting the possibility that the seven-spiral design was a later development than the five-spiral. Dr T Dickinson comments that the seven-spiral design constitutes a large distinctive

group otherwise found only in the Avon and upper Thames valleys, with a possible date range of the middle quarters of the sixth century. The amber and glass beads, pin and knife accompanying the Alton brooches would be equally at home in the fifth or sixth century.

The pair of brooches from grave 23 (Fig 29 23.1–2) are decorated by seven leg-and-claw motifs, surrounded by a ring-stamped border. The leg motif was noticed by Leeds on saucer brooches (1912, 172, Fig 11), and has been discussed subsequently by others (Bidder and Morris 1959, 90–1; Welch 1983 i, 50–1). Dr Dickinson comments that this belongs to a large group, within which there are distinct variants in terms of design. The most striking are those with a zigzag border, found predominantly in the upper Thames valley, with others south of the Thames at Pewsey (Wiltshire), Harwell (Oxfordshire), Selmeaton and Northfleet (Kent). Two variants without the zigzag are non-upper Thames groups: with single-stroke legs and hip bars from Haslingfield (Cambridgeshire) and Ewell (Surrey); and with multiple toes on the legs and a broad, variously stamped flange from Alton, Harwell and Andover, Portway East (Hampshire) grave 35. In her thesis she dated them to the middle or second half of the sixth century, but feels there may now be reasons to raise these dates. The associated objects of amber and glass beads, pin, knife, buckle and keys at Alton are not very useful in establishing a precise date, but the strap end (23.8) is of a type already in use in the fifth century, continuing into the sixth.

The two saucer brooches in grave 47 (Fig 37 47.1–2) show two Style I animals, both proceeding in the same direction. The haunch and curling hind claw are clearly visible, the smaller fore-leg being on the upper part of the body (Fig 3). A pair of brooches with the same design, although rather more expertly executed, was found in the cemetery at



- Head and neck
- ▨ Foreleg
- ▩ Hindleg
- Body

Fig 3. Alton Anglo-Saxon cemetery: animal ornament on brooches 47.1 and 47.2. Scale c 2:1.

Portway, Andover (information from Miss Alison Cook). Another pair of brooches with a pair of related animals but with a central circular panel containing three legs was found at Droxford (Aldsworth 1978, Fig 52d). These three examples suggest a Hampshire producer, but probably contemporary are other cast saucer brooches with a procession of three similar animals from Fairford (Leeds 1912, plate XXVI, 4) and Oddington, Gloucestershire (*Gentleman's Magazine* 57, 1787, 292, plate II, Fig 9). Predecessors are to be found in the saucer brooch from Aston Remenham (Berkshire) where there are four animals in an early Style I, two of them with human heads (Evison 1978b, 265-6, Fig 1, plate LVIId). Even earlier are the fifth-century applied brooches with a procession of three sea-lions as at Sigy, north France (Evison 1965, plate 17c; Evison 1978a, plate XLIIa, c, d, Fig 2g). The Alton pair probably belong to the first half of the sixth century.

The dating of these saucer brooches has not yet been generally established, and we await the publication of the results of Dr Dickinson's study, which enables her to allocate dates in the middle and second half of the sixth century to some. With regard to the saucer brooches at Alton, an early fifth-century date for the five-spiral brooch in Cremation 1 cannot be doubted in view of the type of urn in which it was contained. The other three saucer brooches are larger, and one is decorated in Style I animal ornament, which gives a date of late fifth to early sixth century. The seven-spiral and leg designs of the other two come from early origins which counter-balance the probably later indication of the larger size.

The other evidence available at Alton includes orientation, but this is different for each: grave 12 west-east; 23, south-north; and 47, southwest-northeast. The west-east orientation of 12 is an element in favour of a phase I dating for this grave. Grave 23 cut a fifth-century cremation, 32. As to associated objects, each is accompanied by beads: grave 12, amber and drawn glass with one crystal; grave 23, amber with three polychrome; grave 47, amber and drawn glass. At Dover amber beads occurred in phases 1-4, from AD 475-650, but mostly before 625; and drawn glass beads were confined almost entirely to phases 1-3, AD 475-625. The only other associated object of distinctive appearance is the strap end of fifth-century origin in 23. There is therefore nothing in connection with these three graves which suggests a date later than AD 525 and much that could be earlier. As matters stand, a late fifth to early sixth-century date seems most likely for these three saucer brooches.

Button brooches

The pair of button brooches in grave 35 (Fig 32 35.1-2), belong to class Ji (Avent and Evison 1982), a distinctive class which differs from most others by its larger size, with an average mean diameter of 25.9mm. In fact the three variants of the J class share

this characteristic with classes I and K only (Avent and Evison 1982, table 1). There are also similarities in the design between these three classes, for in the J class a mask with vertical line decoration on the head is flanked by two animal legs, and possible traces of the leg design or the vertical lines appear on some of the class I and K brooches (Avent and Evison 1982, 98). The grave 35 brooches are also distinguished by the angle of the pin at 360°, that is, the pin is positioned vertically in relation to the mask design, with the catch at the top. This arrangement also occurs on the other J class brooches, on three K types, and on one Iii and one K type the pin is also vertical, but at 180° (Avent and Evison 1982, 100, table 6). A vertical pin also occurs on a few other types, but on the majority of button brooches varying angles are adopted, many horizontal.

The objects associated with class K brooches are not distinctive enough to give a more precise dating than fifth or early sixth century, but a saucer brooch with a class K mask centre surrounded by a star design may be compared with other saucer brooches with a similar design of the early fifth century (Avent and Evison 1982, 98). The graves containing brooch types Ii and Iii are also probably of the fifth century, and two Jii brooches in grave 550 at Mucking are from a cemetery which began about AD 400. An unassociated find of a Ji brooch was found at or near the Roman site at Silchester (Hampshire) where there are no finds later than cAD 400. Grave 35 at Alton also contained a knife, iron loop, tweezers, amber and blue glass disc beads, and a bronze pin of derived late Roman type (below 12) so that a date in the first half of the fifth century is probable.

The distribution of the J type brooches, as well as types I and K, adheres very closely to the river Thames and its tributaries, with the exception of Kempston (Bedfordshire) near the Icknield Way. A few examples of later classes A-E and G are found in the upper Thames area and at Mucking, but otherwise the distribution is south of the river. The I, J and K classes, therefore, must have adorned the earliest Saxon women who arrived via the Thames and Icknield Way.

The two button brooches in grave 37 (Fig 33 37.1-2) are a dissimilar pair classified as Eii. The total number of brooches in classes Ei, Eii and Eiii are shown as nine on the distribution map (Avent and Evison 1982, Fig 6): three Ei at Mucking, two Eii at Alton, three Eiii at Alfriston and one Eii at Vierville, Manche, France; but to these should be added a more recent find at Apple Down, Compton, West Sussex (Avent and Evison 1982, 117). The brooch from Alton (37.2) is similar in design to the Eii brooch at Vierville, for on both the mask consists of eyes and nose only. The other brooch (37.1), however, has a unique design, as the craftsman has added an upturned mouth with a protruding tongue. Another smiling face decorates the recent find from Blandford (Dorset), a class F brooch with 180° bronze pin at the back. All the Ei and Eii brooches also have 180° pins, but in iron.

The Vierville brooch of iron chain, two a (Verron and Pilet 19... indicate a fifth or sixth... also contained amber... on a ring, an iron b... an iron fragment. Co... found in grave 35, includes Mucking, further south, in S... the vertical angle of... a dress function diff... the button brooches... her thirties and grav... west-east and near... therefore have occur... if so, the younger v... the newer version

Disc brooches

One pair of disc... excavation, U3 and... pletely undecorated... 38), was a loose find... lightly stamped ma... types are near the... 3.6cm (Dickinson... ated, they can co... regarding the dating... disc brooch, undeco... tion, was found wi... and quot brooch... combe, Isle of W... Arnold 1982, Fig... otherwise undecora... ham, East Sussex... completely undeco... meter 2.6cm, was... with a knife, bronz... with shield-shaped... brooch with small... was found with the... Berinsfield, Oxford... Fig 3.7b).

This is a brooch... sively in England... valley and Cambri... Thames (Leeds... circular brooch, s... brooches, were in... both in Britain and... sometimes been reg... on types, but they w... popular in the imm... circular types which... time of the migrat... saucer and applied... the button brooch... spread of the appl... without a break fro... valley to the fifth ce... 100, Fig 3; Evison

The Vierville brooch was associated with a bracelet of iron chain, two amber beads and one glass bead (Verron and Pilet 1977, 87), which do no more than indicate a fifth or sixth century date. Grave 37 at Alton also contained amber and glass beads, two bronze pins on a ring, an iron buckle with square plate, a knife and an iron fragment. Compared with the Ji class of brooch found in grave 35, the distribution of type Eii also includes Mucking, but otherwise the spread is further south, in Sussex. A significant similarity is the vertical angle of the pin which probably indicates a dress function different from that of the majority of the button brooches. Grave 35 contained a woman in her thirties and grave 37 a girl about 16, both buried west-east and near each other. Their deaths might therefore have occurred at much the same time and, if so, the younger woman would have been wearing the newer version of the button brooch.

Disc brooches

One pair of disc brooches was found before the excavation, U3 and 4 (Fig 38), and these are completely undecorated. A fragment of another, U7 (Fig 38), was a loose find, and this has a double border of lightly stamped marks. The measurements of both types are near the mean diameter of the species, 3.6cm (Dickinson 1979, 40). As these are unassociated, they can contribute nothing to speculation regarding the dating of disc brooches. A comparable disc brooch, undecorated save for a central perforation, was found with belt studs, lead spindle whorl and quoit brooch style mount in grave 13, Bowcombe, Isle of Wight (Evison 1965, Fig 28a-f; Arnold 1982, Fig 64). Another perforated, but otherwise undecorated, pair was found at Beddingham, East Sussex (Welch 1983 ii, Fig 62a). A completely undecorated pair, smaller in size, diameter 2.6cm, was found in grave 576 at Mucking with a knife, bronze strap end (missing) and buckle with shield-shaped plate of fifth-century type. A disc brooch with small annulet stamps only as a border was found with the fifth-century equal-arm brooch at Berinsfield, Oxfordshire, grave 8 (Dickinson 1979, Fig 3.7b).

This is a brooch type which appears almost exclusively in England, mainly in the upper Thames valley and Cambridgeshire, with some south of the Thames (Leeds 1945, Fig 30). Various types of circular brooch, such as enamelled and applied brooches, were in use during the Roman period, both in Britain and on the Continent, and these have sometimes been regarded as forerunners of the Saxon types, but they were not particularly numerous or popular in the immediately preceding period. Other circular types which were current about AD 400, the time of the migration, are the continental Saxon saucer and applied disc brooches and probably also the button brooches (Avent and Evison 1982). The spread of the applied brooches may be followed without a break from the third century in the Elbe valley to the fifth century in England (Evison 1978a, 100, Fig 3; Evison 1978b, 274, Fig 4) where they

became most numerous in the Thames valley, particularly the upper reaches. Connections between the applied, saucer and disc brooches are evident from the common, basic circular form, from the existence of a few hybrid forms, and also from some shared designs, as well as a considerable coincidence of chronology and of distribution in mainly Saxon areas.

Some graves containing disc brooches have been listed by Dickinson (Dickinson 1979, 47-8) according to an estimate of date ranging from the mid-fifth to the late sixth century. One important constituent of the chronological argument is that silver finger rings and beads of amber, rock crystal and metal-in-glass indicate the sixth century (Dickinson 1979, 41, 46). While all these do occur, and perhaps even predominate in the sixth century, they are also fairly common in the fifth century. Most of the last section of graves which were allocated to the 'sixth century generally' therefore are just as likely to belong to the fifth century. One of these graves, Great Chesterford (Essex) grave 18, contained many other objects besides beads, including a B7 type of wrist clasp which Hines (1984, 75) believes began just before or after AD 500. Some of the graves designated otherwise belong to the first half of the fifth century: Orpington (London) 4, 51 and 58; Minster Lovell (Oxfordshire) 3; Mitcham (London) 229 (Dickinson 1979, Figs 3.2-3.5); Leagrave (Bedfordshire) 1; Alfriston 14 (Evison 1965, Fig 24a-e); and Long Wittenham, Oxfordshire 165 (Evison 1968, Fig 4a-d). Dickinson (1979, 61, note 114) suggests that she may now be willing to accept earlier dates in respect of some of these graves.

The late Roman technique found on the disc brooches (Dickinson 1979, 51), that is, rough casting, nicked edges, stamps and particularly ring-and-dot stamps, which are also found on Quoit Brooch Style products, are certainly Roman in origin, as well as other techniques such as *repoussé* work. About AD 400 these techniques were being used on the Continent in the manufacture of equal-arm brooches, buckles, saucer and applied brooches, and their sudden increased use in post-Roman Britain, including a use on Saxon forms, was due to a migration of the continental producers from across the Channel. The forms and techniques are not to be found in late Romano-British products.

Quoit brooches

The quoit brooch 14.2 shows slightly superior tooling work to that on 14.1 (Fig 27), but even so the craftsmanship is inferior to the sophisticated work usually displayed on quoit brooches. Many have a layout of inner and outer border, each formed by two concentric circles with cross-stamping in between consisting of straight or curved lines to imitate beading (Welch 1983 ii, Alfriston Fig 27c, Highdown Figs 91a, 97b, 101a, 105a, 116a-b). This decoration is often accompanied by a variety of further stamping, but it stands alone on the Alton brooches. These fairly simple brooches are the poor

relations of the silver quoit brooch types found in Kent at Sarre and Howletts, and the distribution is different, as they occur in Sussex at Alfriston and Highdown, and elsewhere in the south of England such as Abingdon and Mucking. A quoit brooch in Mucking grave 637 (Evison 1977, 134-5, 140) has an additional row of triangular stamps, and the cross-tooling of the borders was done with an arc-shaped stamp, but the crudeness of the work is comparable with that of the Alton pair. Almost all of the quoit brooches are provided with a slot for the passage of the pin, and two knobs to act as pin-stops. Neither of these are to be found on the Alton brooches, however, and they are also absent from the brooch in Highdown grave 36 (Welch 1983 ii, Fig 101a), where the decoration is even more simple, and compass circles appear without cross-stamping. A brooch of like simplicity occurred in grave 80 at Abingdon where again there are compass circles only and no slot or pin-stops (Leeds and Harden 1936, plate XV).

A date for the beginning of Quoit Brooch Style products in the first half of the fifth century is now accepted, and the contents of grave 14 at Alton, a biconical pot, knife, pin and fragment of a Roman glass bottle neck, support this date for the grave.

Pins

The gilt bronze pin 35.4 (Fig 32) is derived from a late Roman type and belongs to the 'Wijster' type of pin although its length of 9.8cm is less than the range of 14.0-26.5cm noted by Böhme (1974, 35). As the shaft diminishes little in girth, it is probable that the short length was caused by breakage and subsequent re-shaping of the point. The tops of the heads of some of the Wijster-type pins are decorated with lines radiating from the centre, from three to eight. On top of the Alton pin there are five dotted radiating lines with a ring stamp in each section. The continental distribution of this star-decorated type is between the Scheldt and the Ems (Böhme 1974, 38, Abb 13, 354-6, Karte 9) and Böhme's map of the type in general includes a double-knopped variety in England at Alfriston grave 65 (Welch 1983 ii, Fig 30b). There is also one unassociated from Highdown, another of the same type from grave 62 at Alfriston (Welch 1983 ii, Figs 116c, 29a), and one without the second knop was in grave 29 at Alfriston (Welch 1983 ii, Fig 13a). A related type with ringed head occurred at Mitcham, grave 229 (Bidder and Morris 1959, plate XV, 229).

Large hairpins first came into use in the last third of the fourth century, and objects associated with the Wijster type of pin on the Continent allow it to be dated to the beginning or first half of the fifth century. The English examples have little or no faceted decoration, but are otherwise very similar, and they must be the latest of the Wijster series dating to the middle of the fifth century. The Alton grave and two of the Alfriston graves also contained button brooches, and grave 65 at Alfriston contained a five-spiral saucer brooch, all equally early types.

These long pins are regarded as connected with coiffure or head covering on the Continent, as they are usually found by the right temple, but they do not seem to have been used in this particular way in England, for in Alton grave 35 the pin was in the middle of the chest, and in graves 29 and 62 at Alfriston they were also on the chest, although either position would have been suitable for fastening a textile head covering.

The small bronze pin with faceted head from cremation 24 (Fig 41) is a Roman type, and occurs abroad at Oudenburg, Belgium, grave 67, and Vert-la-Gravelle, France, grave 7 (Böhme 1974, Taf 95, 4; Taf 144, 15), both late fourth-century burials with tutulus brooches. A bronze pin of this type occurred in the late Roman cemetery at Lankhills, Winchester, as well as two versions of the form in jet (Clarke 1979, Figs 93.396, 73.89F, 82.267). Nearer at hand, and in an Anglo-Saxon grave, a larger version was found at Droxford (Aldsworth 1978, Fig 31.35). At Mucking there was one in grave 843 with the early claw-beaker. One was found at Lackford (Suffolk), also associated with a miniature comb, in a pot with vertical shoulder bosses (Lethbridge 1951, Fig 28.49, 17; Myres 1972 2, Fig 82.979). The pot type is not closely dateable, although Myres suggests AD 500 or early sixth century for the type, and Lethbridge suggests the seventh century, as he compares the pin with one found in a late grave at Shudy Camps, Cambridgeshire (Lethbridge 1936, 20-1, Fig 4C.1). This does not, however, appear to be an apt comparison as, according to the drawing, the shaft of the Shudy Camps pin has a different, swelling shape more in accordance with seventh-century forms.

The iron pin 11.1 (Fig 25) has a flat, rolled head, similar to pins found at Dover and at Bergh Apton, Norfolk (Evison 1987, 82). On four of the other iron pins the shaft is looped over at the head to form a shepherd's crook shape: 12.7, 23.5 and 14.1 (Figs 26, 29 and 34), and 14.3 (Fig 26) has a loose ring linked into the crook.

One bone pin only remains, 27.9 (Fig 30), with a perforated, spatulate head.

Beads

Beads occurred in a total of fifteen inhumations and five cremations, representing a total of 302 individual items plus fragments. Out of nineteen female inhumations thirteen contained beads, three of the remainder had no finds at all (graves 13, 20 and 25), grave 21 had a knife only, grave 11 had a pin, knife, buckle, perforated coins *etc.*, and 14 was the quoit brooch grave. Cremation 1 was a female, on the evidence of the bones, associated brooches and one monochrome bead; cremation 7 had a monochrome bead and amber fragments; in cremation 10 there were two glass beads, and in each of cremations 13 and 33, one bead only, so that all these may be interpreted as female burials. One amber bead occurred in grave 42 (Fig 35 42.1b), a male grave, where it was positioned beside the sword blade about

Table 4. Alton A

Grave or cremation number	
2	
9	
12	
19	
23	
27	
33	
35	
37	
39	
41	
42	
43	
46	
47	
C1	
C7	
C10	
C13	
C33	

Totals

+ = fragments

15cm from the strips on the sh suspended from t way as some whic the perforation in times fixed to the Figs 2h, j, 3e, 9d for the sword mus point where it was that there is the l was attached to t grave, and this c 2.1b-c) as well a possibly both, w 15cm from the g single bead attach in grave 44 at Br 1967, 83).

The other thir female, and in all were amber, and beads and no othe no amber were 9, of three years wit probably a faster the usual roughl small, and in disc cylinder shapes (F 134 amber beads, had the greatest r

Table 4. *Alton Anglo-Saxon cemetery: types of beads in individual graves.*

Grave or cremation number	Amber	Crystal	Fossil or ironstone	Bone	Monochrome	Drawn globular	Drawn cylinder	Polychrome	Totals
2	-	-	-	-	1	-	-	1	2
9	-	-	-	-	35	-	-	1	36
12	9	1	-	-	1	1	1	-	13
19	2	-	-	-	14	-	-	1	17
23	37	-	1	-	-	-	-	3	41
27	18+	-	-	-	1	-	-	-	19+
33	3+	-	-	-	1	-	-	-	4+
35	4	-	-	-	2	-	-	-	6
37	15	-	-	-	34	-	-	2	51
39	3	-	-	-	4	-	-	10	17
41	3	-	1	-	-	2	3	-	9
42	1	-	-	-	-	-	-	-	1
43	3	-	-	-	-	-	-	-	3
46	-	-	-	1	-	-	-	-	1
47	36+	-	-	-	-	40	-	-	76+
C1	-	-	-	-	1	-	-	-	1
C7	+	-	-	-	1	-	-	-	1+
C10	-	-	-	-	2	-	-	-	2
C13	-	-	-	-	1	-	-	-	1
C33	-	-	-	-	1	-	-	-	1
Totals	134+	1	2	1	99	43	4	18	302+

+ = fragments

15cm from the tang, near to the bronze binding strips on the sheath. The bead may have been suspended from the top of the scabbard in the same way as some which must have been suspended from the perforation in the back of a metal mount sometimes fixed to the top of a scabbard (Evison 1967, Figs 2h, j, 3e, 9d, Plate XIb). The suspension strap for the sword must have gripped the scabbard at this point where it was strengthened by binding strips, so that there is the less likely possibility that the bead was attached to this strap. Grave 2 was also a male grave, and this contained two glass beads (Fig 22 2.1b-c) as well as a sword, and one of them, and possibly both, were found beside the blade about 15cm from the grip. There was usually only one single bead attached to a sword, but two were found in grave 44 at Brighthampton, Oxfordshire (Evison 1967, 83).

The other thirteen inhumations with beads were female, and in all but two of them some of the beads were amber, and in grave 43 there were three amber beads and no other types. The two graves which had no amber were 9, a seven-year-old, and 46, an infant of three years with a single bone bead (Fig 36 46.1), probably a fastening. The amber beads occur in the usual roughly-shaped forms, both large and small, and in disc, wedge, flat, biconical and short cylinder shapes (Fig 4). Out of a total of more than 134 amber beads, two of the saucer brooch graves had the greatest number of amber beads, and also

the largest examples: grave 23 also contained a perforated ironstone nodule and the second largest number of polychrome beads (three), and grave 47 contained forty drawn globular beads. It is noticeable that all graves with brooches also contained beads, with the exception of grave 14 which contained quoit brooches. The other non-glass beads consist of one smooth, disc-shaped crystal, one fossil, one bone and one ironstone nodule.

Monochrome glass beads (Fig 4) are the next most numerous type, ninety-nine in all, of which thirty-five occurred in grave 9, thirty-four in grave 37 and fourteen in grave 19. The types in grave 9 (Fig 25) were mainly annular, dark blue translucent with a variety of other colours; in grave 37 (Fig 33) they were annular, translucent blue or dark blue and annular brown translucent; and in grave 19 globular opaque yellow beads only with the exception of one polychrome bead (Fig 28 19.1i). In grave 39 the four monochrome beads were yellow or rust red, while in each of eight other graves there were only one or two each of monochrome beads. One of the sword beads, 2.1b, was a yellow translucent disc (Fig 22). Graves which had no monochrome beads were all in the western sector: 23, 41, 42, 43, 46 and 47. Forty drawn globular beads occurred in grave 47, but only one in grave 12 with a drawn cylinder, and two in grave 41 with three drawn cylinders. At Dover these forms of drawn beads occurred only in phases 1-3, and mostly in the first two phases dated to AD



Fig 4. Alton Anglo-Saxon cemetery: non-glass bead types (A01-A13); monochrome glass bead forms; and polychrome glass bead types (D01-D15). Scale 1:1.

Table 5. Alton A

Alton type	Material
A01	Amber
A02	
A03	
A04	
A05	
A06	
A07	
A08	
A09	
A10	Crystal
A11	Ironstone
A12	Fossil
A13	Bone

+ = fragments

475-575. All these were common in possibly the area 37.4c and f.

Three graves (graves 2, 9 and three in grave 23, (Table 4, Fig 4). The combed, crossing D11, Fig 4) are swirl of glass in an common. The white 33), is similar to Farbtafel 1), and a red and white disc identical to Koch Stufe 2-3, AD 54-33) relates in a general

Although large or possibly as a special Anglo-Saxon context shapes and patterns

Table 5. Alton Anglo-Saxon cemetery: non-glass beads (Fig 4).

Alton type	Material	Shape	Catalogue number	Quantity in each burial	Totals	Dover (Evison 1987) type and phase
A01	Amber	Small roughly-shaped	12.4ia; 39.1a; 41.2a; 43.3ia, ii 33.8a 27.1a 47.3a	2 3+ 13+ 25	49+	A01 1-3 most 1+2
A02		Roughly-shaped	39.1b; 41.2b 19.1ia; 47.3b 27.1b	1 2 5	11	A02 1-4
A03		Disc	35.3a	1	1	A03 3-4
A04		Wedge-shaped	35.3b; 43.3ib 47.3c 12.4ib, ii, iiia; 37.4a 23.4ia	1 5 7 15	36 134+	A04 1
A05		Large wedge-shaped	42.1b 47.3d	1 4	5	
A06		Flat	35.3c 37.4b 23.4ib	2 3 20	25	
A07		Large flat	23.4ic	1	1	
A08		Biconical	37.4c	5	5	
A09		Short cylinder	23.4id	1	1	
A10	Crystal	Disc	12.4iiib	1	1	1
A11	Ironstone	Nodule	23.ii	1	1	1
A12	Fossil	Porosphaera globularis (Phillips)	41.2c	1	1	1 A11 5
A13	Bone	Dome-shaped	46.1	1	1	1

+ = fragments

475-575. All these monochrome and drawn types were common in Anglo-Saxon cemeteries, except possibly the annular translucent purple-brown 37.4e and f.

Three graves contained a single polychrome bead (graves 2, 9 and 19), there were two in grave 37, three in grave 23, and a maximum of ten in grave 39 (Table 4, Fig 4). Beads with trail decoration, zigzag, combed, crossing and crossing with dots (DO3-D11, Fig 4) are common types, and beads with a swirl of glass in another colour (DO1, DO2) are less common. The white bead with blue dots, 39.1n (Fig 33), is similar to Koch 1.2 (Koch 1977 1, 201, Farbtafel 1), and the black beads speckled with rust, red and white dots, 23.4if (Fig 29), seem to be identical to Koch 11.10 which occurs mostly in her *Stufe* 2-3, AD 545-600. The 'eye' bead 39.1m (Fig 33) relates in a general way only to Koch types 6-9.

Although large glass beads, used as a sword bead or possibly as a spindle whorl, are no strangers in Anglo-Saxon contexts, they adopt a wide variety of shapes and patterns. A bead of somewhat similar

shape to Alton 2.1c (Fig 22) although flatter, and with the same design of a zigzag each side with a single circumference trail only, and in dark olive with white trails, occurred in grave 223 at Mitcham. It was in a man's grave with spear and knife and tweezers in the fill, and the bead was at his waist. This unusual arrangement suggests a possible partial disturbance of the grave and that the man may originally have had a sword, a situation which would account for the presence of a large bead in a man's grave at waist level (Bidder and Morris 1959, 74, plate XVII, 223).

Almost all the bead types found in the Alton cemetery are common types which were found at Dover and were discussed in that context (Evison 1987, 57-67). They are almost all types which occurred at Dover in the phases 1-5, AD 475-675, with a preponderance in phase 3, and almost every grave with beads included amber beads, which at Dover belong to phases 1-4, AD 475-650. Three polychrome beads in grave 39 (1h, i and k; Fig 33) are types closely paralleled at Dover, and these all

Table 6. Alton Anglo-Saxon cemetery: monochrome glass beads (Fig 4).

Alton type	Colour	Shape	Catalogue number	Quantity in each burial	Totals	Dover (Evison 1987) type and phase
B01	Rust red	Disc	39.1c 9.1a	1 2	3	B01 3, 5-7 most 3
B02		4-sided cylinder	39.1f	1	1	B09 4-5
B03	Brown translucent	Annular	37.4e	18	18	
B04		Annular (double)	37.4f	1	1	
B05	Yellow	Disc	9.1b	3	3	B12 1-6 most 3
B06		Disc (double)	39.1d	1	1	B13 1, 3, 5 most 3
B07		Globular	19.1iib	14	14	B15 1, 3 most 3
B08	Yellow translucent	Disc	2.1b; 39/1e	1	2	2 B22 5
B09	Olive green translucent	Disc	9.1c	1	1	1
B10	Dark olive green translucent	Disc	9.1d	1	1	1
B11	Dark green	Disc	9.1e	1	1	1
B12	Light green-blue	Melon	C7.9b	1	1	1
B13	Blue translucent	Annular	9.1h 37.4g	1 7	8	9
B14		Melon	27.1c	1	1	
B15	Dark blue translucent	Disc	C1.5 C10.1 C33.3	1 2 1	4	B48 3, 6 most 3
B16		Annular	C13.1 35.3d 37.4h 9.1i	1 2 7 20	30	B49 3, 5
B17		Annular (double)	9.1j	1	1	35
B18		Melon	33.8b	1	1	
B19	White	Disc	9.1f	1	1	1 B57 3, 5
B20	Black	Disc	9.1g	3	3	B61 3-5
B21		Melon	9.1k	1	1	6
B22		Coiled cylinder	12.4ic	2	2	B63 2
B23	Colourless	Disc	37.4d	1	1	1

occurred there in graves dated to phases 3 and 4, mostly in phase 3, AD 575-625. Additional types present at Dover but absent at Alton are amethysts, metal beads, orange barrel-shaped beads and shell beads which tend to occur later than amber, and also the more complicated polychrome beads, mosaic, millefiori and reticella. It seems that the polychrome beads must have been difficult or expensive to acquire at Alton as they crop up sparingly, sometimes single in graves, and totalling no more than

eighteen in twenty burials furnished with beads out of a total of 302 beads. There are no types which seem to be relics of the Roman period and confirmation of this comes from the analysis (52 below).

In some graves there is evidence of careful selection with an eye to colour co-ordination, for example grave 19 combined opaque yellow glass with amber beads; grave 33 combined amber and translucent brown beads with translucent blue beads and even the single polychrome bead was in white with trans-

Table 7. Alton Anglo-Saxon cemetery: drawn glass beads (Fig 4).

Alton type	Colour	Shape	Catalogue number	Quantity in each burial	Totals	Dover (Evison 1987) type and phase	
C01	Blue translucent	Cylinder	12.4id 41.2d	1 1+	2+	C01	1-3 most 1-2
C02		Twisted cylinder	41.2e	1	1	C03	1-2
C03	Colourless	Globular	12.4ie 41.2f 47.3e	1 2 25	28	C05	1-3 most 2
C04		Globular (double)	47.3f	7	7	C06	2-3 most 2
C05		Globular (triple)	47.3g	7	7	C07	1-2
C06		Globular (quadruple)	47.3h	1	1	C08	1-2
C07		Beaded cylinder	41.2g	1	1	C09	1-3

+ = fragment

Table 8. Alton Anglo-Saxon cemetery: polychrome glass beads (Fig 4).

Alton type	Decoration	Colour	Colour of decoration	Shape	Catalogue number	Quantity in each burial	Totals	Dover (Evison 1987) type and phase	
D01	Swirls	Light green translucent	Rust red	Disc	9.1l	1	1	1	
D02	Swirls and zig-zag trail	Olive green translucent	Yellow	Disc	39.1g	1	1	1	
D03	Zig-zag trail	White	Blue translucent	Disc	19.1i	1	1	1	
D04	Zig-zag and circumference trails	Very light green translucent	White	Disc	2.1c	1	1	1	
D05	Combed trails	Rust red	Yellow	Cylinder	39.1h	1	1	1	D14 3-4
D06	Crossing trails	White	Blue translucent	Disc	39.1i	1	1		D24 3, 5
D07				Disc (double)	39.1j	1	1	2	
D08	Crossing trails and dots	White	Dark blue translucent, rust red dots	Disc	23.4ie	1	1		
D09			Dark blue translucent	Disc	37.4i	2	2	6	
D10		Rust red	Yellow	Barrel	39.1k	1	1		D46 3-4
D11			Missing	Barrel	39.1l	2	2		
D12	Marvered dots	White	Blue translucent	Disc	39.1n	1	1		
D13		Dark blue translucent	White	Globular	39.1o	1	1	5	
D14		Light blue translucent	Rust red rings in white dots	Disc	39.1m	1	1		
D15		Black	Rust red and white	Disc	23.4if	2	2		

... burials furnished with
beads. There are no
of the Roman period and
es from the analysis (32
s there is evidence of
to colour co-ordination,
ed opaque yellow glass
combined amber and
th translucent blue beads
rome bead was in white

lucent blue crossing trails and dots. Blue was the colour chosen to contrast with amber in graves 27, 33, 35, and in 41 which had colourless beads also.

Position of beads

The seven-year-old girl in grave 9 had thirty-six beads, almost entirely monochrome of various colours, and they were found under her left wrist in the pelvis, that is either worn as a bracelet or, more likely, kept in a bag or pocket (Fig 43). The old woman in grave 12 was wearing a pair of saucer brooches on the chest, and a few (seven) small beads – amber, monochrome and drawn – were near the left brooch, presumably suspended from it (Fig 44). There was also a row of five wedge-shaped amber beads at the left waist with a crystal bead nearby, and another amber bead on the left pelvis. This suggests not beads in a container, but ornamentation of a row of amber beads on a belt, with the crystal bead a little below, possibly acting as a toggle as there was no buckle in the grave.

Grave 19 contained a four year old girl who was wearing a single polychrome bead at the neck, perhaps used as a toggle to fasten clothing. Sixteen smaller monochrome and amber beads were scattered, mostly along the line of the waist and round the lower half of the body (Fig 45). It is possible, therefore, that again some were used as ornament on a belt, but the others, if worn rather than scattered over the body, must have been sewn on a garment. The woman in grave 23 was wearing a saucer brooch on each shoulder, and three polychrome and an amber bead at the right side of the neck may have been strung between them (Fig 45). A line of thirty-six amber beads from the right shoulder to inside the right elbow could have been suspended from one or both brooches although the beads did not reach the left brooch. On top of the upper jaw, and the nearest bead to the left brooch, was a perforated ironstone nodule, which would appear to have been placed separately and deliberately on the face.

The ten-year-old girl in grave 27 had been propped up in the grave to a half-sitting position, and does not appear to have been wearing any beads on her person. The grave was 10in (0.25m) deep, but the beads (eighteen amber, one blue glass) occurred at depths from 2 to 7in (5 to 17.8cm) between the right shoulder and the bucket, with one animal tooth at each end of the scatter (Fig 46). It therefore seems that these items were put in after the grave was at least partly filled, and the spreading of a bead-ornamented cloth might be suggested, or, more dramatically, the breaking of a mourner's necklace by accident or ritually during the infilling of the grave. An old woman without brooches in grave 33 was wearing the same combination of beads, amber with one blue melon, and as they were under her right shoulder, they presumably represent a small necklace (Fig 46). A woman in grave 35 was wearing a pair of button brooches with six beads pendant from the left brooch (Fig 47). The young woman in

grave 37 was also wearing a pair of button brooches, but, with one exception amongst the facial bones, the beads were nowhere near either. The other fifty beads were lying between the right ribs and the inside right knee, and such a long stretch suggests that they were sewn on a garment rather than swinging free (Fig 47). There were no brooches with the old woman in grave 39, and the total of seventeen beads were spread from shoulder to shoulder (Fig 47). Amongst them were ten polychrome beads, the largest number in one grave. The young woman in grave 41 was wearing a cluster of nine beads close to an iron pin and bronze ring at mid-chest (Fig 47). An old woman in grave 43 had two beads between a pair of small long brooches (Fig 47) and one by the left leg. The three-year-old infant in grave 46 had a single bone bead at the neck, no doubt a fastening (Fig 48). A woman in grave 47 was wearing a pair of saucer brooches, but these can have had no connection with the series of beads which began at mid-waist and continued under the left hand to below the pelvis (Fig 48).

Two of the females at Alton, therefore, were wearing beads in what has been regarded as the normal Anglo-Saxon manner, that is, suspended between a pair of brooches (graves 23 and 43). Where there was a pair of brooches, the beads were near one brooch only in graves 12 and 35, and in 23 the main string of amber beads was below the right brooch while the three polychrome beads and a square bronze plate were between the two brooches. In two graves the beads may have ornamented a belt (12 and 19), and in grave 9 they were either used as a bracelet, or contained in a bag. They may have been worn strung at the neck without brooches in graves 33 and 39, but they seem to have been sewn on garments on the lower part of the body in graves 19, 37 and 47, and possibly in 41. A single bead was at the neck, probably used as a neck fastening in two children's graves, 19 and 46, and the beads in grave 27 had no connection with the occupant's dress.

Buckles and belt mounts

The buckle from grave 16 (Frontispiece; Fig 27 16.2) has already been discussed in the context of ten similar buckles, of which eight were found in north-east Kent, and two in other counties, one at Broomfield (Essex) and one at Taplow (Buckinghamshire). All with known context were found in sword graves, some with other expensive grave goods which indicate high rank.

While only the Taplow buckle is of gold, the others are of silver gilt with applied gold plates and filigree. The triangular *repoussé* plate of the Alton buckle, the beaded filigree work on it and the filigree panel at the base of the tongue are red gold in colour, but the pseudo-plait filigree in the side panels and on the buckle loop are a yellow gold in appearance. This no doubt indicates a variation in the copper or silver content in the gold. Unfortunately it was not possible to investigate this point scientifically as this could only be done by dismantling the buckle (51,

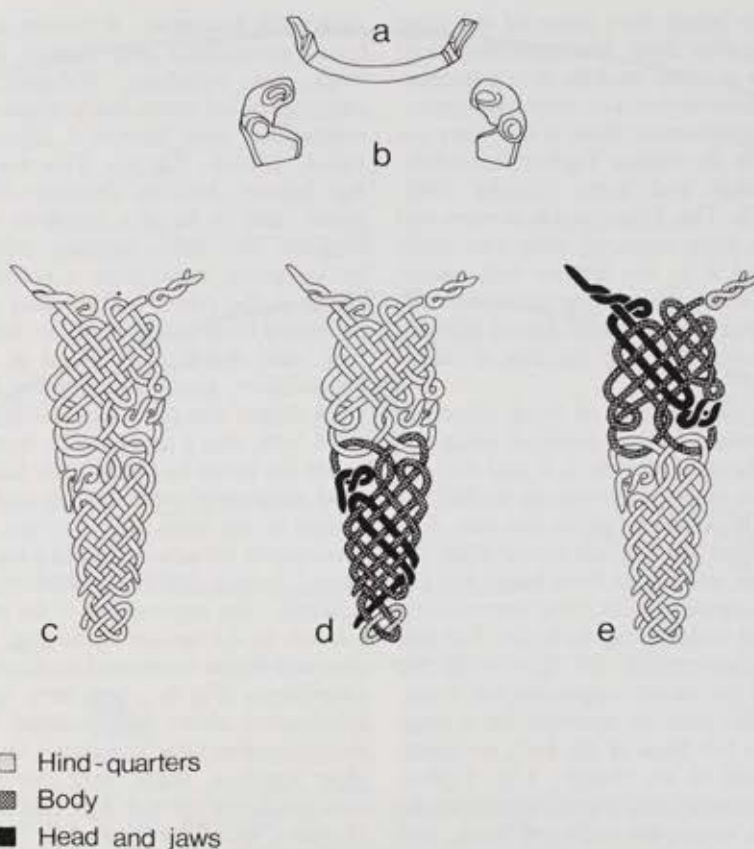


Fig 5. Alton Anglo-Saxon cemetery: animal ornament on buckle 16.2. Scale 1:1.

below). The colour contrast might have been intended by the original craftsman, or it is possible that repairs were carried out in gold of a different and inferior composition.

On most of these buckles the garnet decoration on the tongue base is contained in a metal tray, and represents the only garnet work on the buckle. On the shoulder of the Alton buckle, however, the pair of bird heads are attached to bodies of shaped, sliced garnets (Frontispiece b; Fig 5b). The only other buckles with garnet work on the plate are the Crundale and Taplow buckles, and on the latter garnets adorn the loop as well. Five of the buckles have pseudo-plait filigree borders in varying degrees of fineness. There is a complicated arrangement combined with beaded wires on the Taplow buckle, very fine work on the Wickhambreux buckle and the coarsest on a Faversham buckle (Speake 1980, plates 7f, 6d, e). The Sarre grave 68 buckle has pseudo-plait filigree of a similar fineness to that on the Alton buckle, but the Alton buckle is the only one which has panels of such filigree on the loop of the buckle as well.

Other characteristics link these triangular buckles one to another, including the filigree representation of the animal designs on some plates by a coarse bead wire with a finer one each side (Speake 1980, plates 6b-d, 7a, c and d on the border), with a variant of beaded annulets with a bead border on two (Speake 1980, plate 6e-f), and on two others a peculiar trick

of rounding off the animal bodies with a closed, curved end at the points of intersection instead of leaving them open, which interrupts the flow of the lines of the design (Speake 1980, plate 7b, f). On the Taplow clasps and the Wickhambreux buckle the animal ornament consists of four animals in rosette formation, and the Alton buckle follows this design to a certain extent although only two animals are involved (Fig 5c-e). Figure 5 supersedes Speake's (1980) Fig 4g, which is defective because the design on the buckle plate was obscured by the mending strips on top.

The head of each animal is shown in black: the lower one (Fig 5d) has jaws which interlace with the body, and the top jaw crosses the lower part at one point, while the body is featureless and terminates simply. The lower jaw of the upper animal (Fig 5e) crosses under the upper jaw after interlacing with the body, loops under itself and finishes in a twist with the upper jaw. In a similar manner, and in the opposite corner of the design, the body ends in a double loop twist, representing hind quarters. This twisting at the end of the body is not common, but does occur on the animals of the buckle with triangular plate from Sarre grave 68 (Speake 1980, Fig 7c), and twisting jaws are to be found on a metal mount on the lyre from the Taplow grave (Speake 1980, Fig 7e). The pseudo-plait filigree panel below the tongue shield is in red gold (not silver as Speake 1980, 55) and the animal heads at each end of it are chip-

carved and less like heads than those in the same position on the buckles from Wickhambreux and Sarre (Fig 5a). Five of these buckles have a preponderant number of characteristics in common, however, and the most important of these is that they are on a larger scale than the others: Taplow, Crundale, Alton, Wickhambreux and Sarre (Speake 1980, plates 7f, d, 6b, d, f). The Alton buckle is worn and damaged, and has been repaired with two cross bands which riveted it to the leather belt underneath. Other holes and a rivet stump show that this was not the first repair, so the burial date is likely to have been considerably later than the date of manufacture.

It seems possible that, instead of being placed in the normal conventional funeral position along the left side of the body as in graves 1, 2 and 42, the sword was actually in position as worn on the belt. It was placed diagonally across the pelvis and legs. At a point about 18cm below the hilt, the sword blade lay on top of the forearm, and under these bones was the buckle, with the triangular mount lying immediately underneath that, and under these the knife. The belt was therefore buckled round the hips with the buckle in front and the sword suspended left front. The triangular mount with an aperture for a strap was probably on the left back of the belt, no doubt suspending the knife in its sheath. The Taplow buckle was found on what was considered to be the left shoulder of the almost non-existent body, and this position, combined with the evidence of a gold braid, has suggested that the sword was worn on a baldric (Crowfoot and Hawkes 1967, 48). The buckle at Alton could have been similarly placed, though on the lower part of a baldric, but the position of the knife and triangular plate, the latter suitable as a belt mount, constitute evidence of a belt.

Seven or eight examples have already been noted of a type of buckle which is fixed to a very long plate of iron or bronze, backed by a thick, D-sectioned strip of bone or horn. The buckle in grave 41 (Fig 6f) at Alton belongs to this type, the buckle loop and tongue being of bronze, and the plate an iron strip 17.5cm long, with three rivets to fasten it to the backing which seems to have been made of horn. Fragments of another was found in grave 2, part of a buckle loop and three fragments of iron strip, one still attached by rivets to a D-sectioned backing of ?bone or horn (Fig 6e). Two of the comparable belts were in female graves, two or possibly four in male graves, one in a grave of unknown sex, and one has no known associations. Grave LXXV at Riseley, Horton Kirby (Kent), also contained a sword, spear, knife, shield boss and rivets and although the buckle was not illustrated by a drawing, it was described as 'Iron belt buckle (broken) and part of belt iron strip backed by curved bone to fit body' (Cumberland 1938, plate opp 22). A photograph of grave LXXV shows the buckle on the spine at waist level, the plate extending about 15cm to the left side. The text of the report seems to suggest that another buckle of this type was found in grave LXXVI with a spear and knife: 'belt buckle and iron band to fit body found

under left humerus'. A bronze top plate only was found unstratified near Barrow 1 at Ford, Laverstock, near Salisbury, Wiltshire (Fig 6a), and a pattern-welded sword blade fragment was also found unstratified near Barrow 1 (Musty 1969, 99-100, 102-4, 115-16, Fig 4c). This was an Early Bronze Age barrow, but the discovery of unburnt human bones (said to be of a youth or a woman) nearby suggests that they, together with the sword and buckle plate, came from a secondary Saxon male burial in the barrow. One other male grave which contained no sword but a spear, knife, bone and wire ring, and sherds, was found at Blewburton Hill, Oxfordshire, grave VII (Collins 1952-3, 53-4, Fig 5). A sketch was published, indicating a total length of 28.5cm, and a description: 'around the body just below the pelvis had been some kind of belt with two solid sections of wood bound with iron in the front ending at the sides with buckles; the buckles were presumably for attachment of a leather section which passed round the back. Although the wood has decayed, clear impressions of the grain can be seen in the rust on the surface of the iron'. The fragments of iron and ?bone in grave 2 at Alton were also with a swordsman (Fig 6e), but there is unfortunately no information about their position on the body. The reconstruction (Fig 7) assumes that, as the rivets are close together, some were decorative rather than functional, as on the belt mount from Beckford, Hereford and Worcester (Fig 6b).

Grave 41 at Alton is one of the female graves: the woman was lying on her right side with knees drawn up, and the buckle and plate (Fig 6f) were lying horizontally across the front of her stomach (Fig 47). The grave was not rich but the amber and drawn glass beads, together with a bronze key, twisted ring and disc of Romano-British origin, suggest a fifth-century date, or no later than the early sixth century. A woman in grave 74 at Beckford was wearing a pair of applied saucer brooches, a square-headed brooch, one crystal and amber beads, an ear-scoop and also possessed a knife. A bronze strip with disc-headed ornamental rivets and a D-sectioned ?bone backing (Fig 6b) was positioned across the middle of the waist, and an iron buckle with small plate bearing a bronze, disc-headed rivet was lying lower down on the right pelvis.

The 1853 report of the cemetery at Harnham Hill, Wiltshire (Akerman 1853, 476), records that in the lap of the skeleton in grave 62 was a 'long strip of iron, which has apparently been fastened to a piece of wood by nails more than $\frac{1}{2}$ in. in length. An iron buckle remains at one end'. Perhaps the most informative pieces, however, are the two unassociated items from Droxford. A bronze strip 21.5cm long and a bone and bronze fragment have, unfortunately, recently been described as bucket handles (Aldsworth 1978, 137-8, Figs 34.43, 44), although their function had been recognised in 1969 (Evison 1969, 116, Fig 4e, f). The long strip is folded over at each end, at one end over a square-sectioned fragment. At the other the iron is circular in section, and here there is a slot in the bronze to accommodate

Fig 6. Bu
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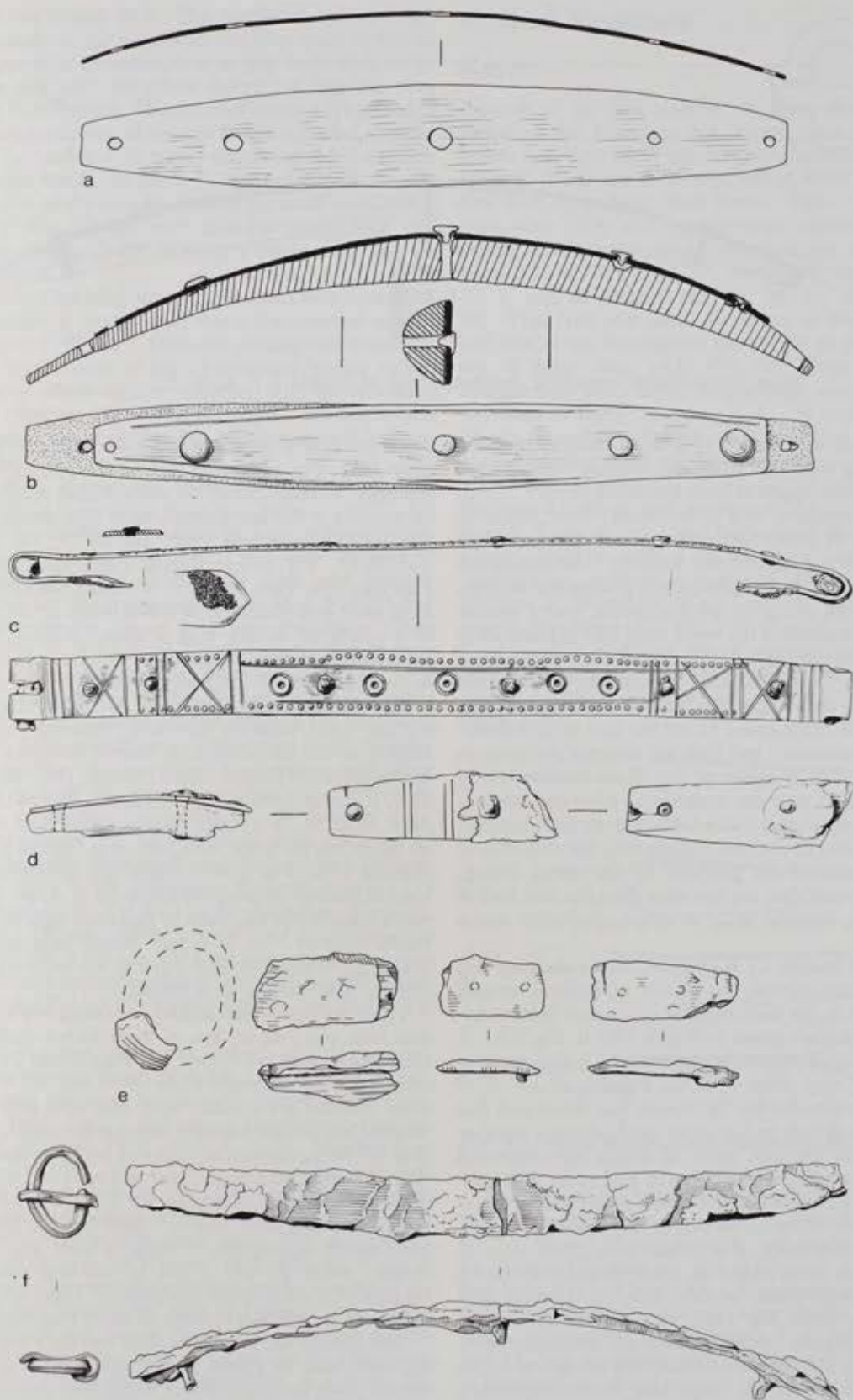


Fig. 6. Buckles with plates of ?bone or ?horn comparable to Alton 41.9: a) Ford, Laverstock; b) Beckford; c) and d) Droxford; e) Alton 2.7; f) Alton 41.9. Scale 2:3.

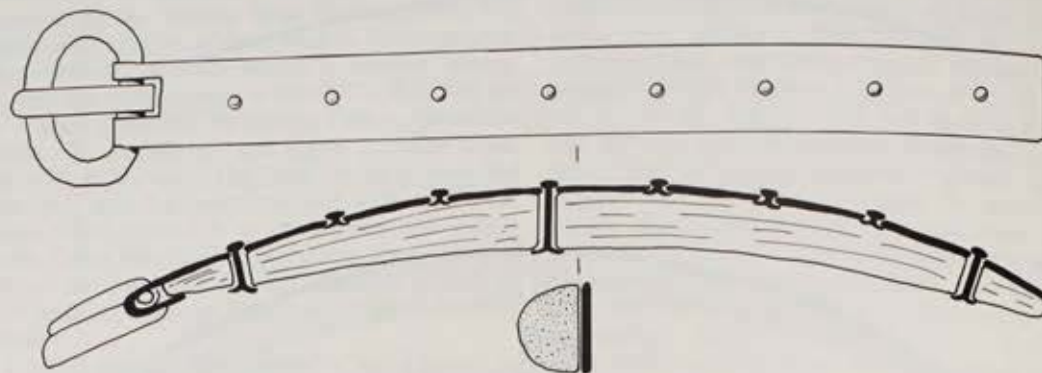


Fig 7. Alton Anglo-Saxon cemetery: reconstruction of buckle 2.7. Scale 1:2.

the tongue of a buckle (Fig 6c). There is no bone remaining with this strip, but another unassociated bronze strip fragment from Droxford (length 5.5cm) was still attached to a D-sectioned ?bone fragment (Fig 6d). It could have been part of the same belt equipment, or another one entirely. The decoration on the long strip includes panels of diagonal crosses, which often occur on buckle plates, and a similar design ornamented the wood strip belt in grave 20 at Dover (Evison 1987, 91 Fig 13, 20/19a). On three of these the 'bone' backing remained, on two the remaining traces were thought to be of wood. The remains in Alton grave 41 are the first to be submitted to a specialist, and they are thought probably to be horn. The purpose of this thick backing could have been to raise the ornamental plate and make it more clearly visible in the folds of body and clothing, possibly also to prevent chafing and discoloration of the material of the garment by the metal fitting. Indications of date are not later than the first half of the sixth century and, at Alton, probably much earlier.

Bronze buckle C7.6 (Fig 40) has a shelving top surface chip-carved, no doubt in Style 1 animal ornament in the same manner as a sword belt buckle from Highdown grave 6 (Welch 1983 ii, Fig 90b). A buckle from Frénouville, Normandy, is decorated in the same way (Pilet 1980 iii, Planche 48.217-1).

The bronze buckle 34.3 (lost, but illustrated Fig 32 by the sketch on the index card) shows a number of unusual features, most of which are connected with buckles of the late fourth and early fifth century. At this time nicked edges, as on the loop and plate, were common, as well as ring-and-dot stamps. A plate consisting of a similar long, thin strip of bronze has been found on crude dolphin-decorated buckle loops made in this country (Hawkes and Dunning 1961, Fig 13g), and also on the horse-headed dolphin loops (Hawkes and Dunning 1961, Fig 15m). The loop is unusual, as it is squared at the front but not at the back, and this extraordinary form could be explained if it were a degenerate version of the horse-headed dolphin loop which did, in fact, turn into a squared-front loop on the Cirencester (Gloucestershire) buckle, where the horses'

heads are almost unrecognisable (Hawkes and Dunning 1961, Fig 15c). The end of the tongue bears markings reminiscent of the animal head tips found on buckles of the late fourth - early fifth century on the Continent (Böhme 1974, Taf 78.27, Taf 83.4, Taf 94.13, Taf 114.3; Evison 1965, frontispiece, Figs 26c, 27a, Plate 9a, c). It is a small buckle for a strap only 1cm wide, but as it was found at the waist of a youth of twenty with a spear, it must have functioned as a belt buckle. It must have been made in the first half of the fifth century.

The bronze ring 30.2 (Fig 31) is circular in section, and, with its narrower, rimmed part, is similar to the earlier British terrets as found in a Saxon grave at Chessell Down (Arnold 1982, 68, Fig 27.27), and at Stowting, Kent (Brent 1867, 413-14, plate XIX, 5). A rimmed tongue recess does occur on Saxon buckle loops, however, as at Chessell Down (Arnold 1982, Fig 28.88), where the section of the loop is lozenge-shaped. In grave 30 at Alton there was a knife at the left waist of this male with an iron buckle nearby. As 30.2 was found near bronze fragments beside the right hip it is not so likely also to have been in use as a buckle.

There are three iron buckles consisting of a simple oval loop and tongue, two of them with a doubled, rectangular plate (47.5 and 23.6, Figs 37 and 29) and one with a square single plate (37.6, Fig 33). Three other buckles are similar, with oval iron loop and tongue, but bronze doubled rectangular plates, 33.7 (Fig 32) being decorated with one nicked edge, 7.3 (Fig 25) with two nicked edges and rows of stamped dots, while the thinner plate on 27.3 (Fig 30) has rows of *repoussé* dots. Graves 7 and 33 were both of south-north orientation, 7 being a male and 33 a female, while 27 was a girl of ten and unusual because of a north-south orientation. There are also eight iron buckle loops, some of them fragmentary.

The normal use for the buckles was for a waist or hip belt, and in graves where the position of the buckle plate indicates clearly which way the buckle was facing it may be seen that the buckle was on the left-hand side and the free end of the belt was passed through the buckle from the right. This applies to the male grave 34.3, and female graves 27.3, 33.7,

37.6, 41.9 and 47.5 diagonally at the waist in the opposite direction to the right side with the buckle have been twisted. In objects at the top of the and the buckle with or knife sheath. In g was part of the sword 16.7g (Fig 27) was rivets, and no doubt the shield.

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Enough remains o 39) to show that it is limited to moulded point, and possible between the two riv strap ends of this t been no further de Grave groups on the strap end are: Brem 1974, Taf 6.6-10; N (Böhme 1974, Taf grave 1 (Werner 19 graves 929, 1100 an or faceted decoration 1969, B, Taf LXIV. 91.7a, 15).

In England one Soringbourne, Kent although not record ning 1961, Fig 2) shure (Werner 195 Dunning 1961, Fig there were cylindrical belt mounts, except rained a buckle with map of the type by shows occurrences m Elbe and Weser, b Rhineland and one example has recentl Alton at Ichen Abb containing a sword, head, knife and cyl 1985, 180-1). The d first half of the fifth

37.6, 41.9 and 47.5. The buckle in grave 7 lay diagonally at the waist with the loop more or less in the opposite direction, but as this body was on its right side with the knees drawn up, the belt may have been twisted. In the female grave 11, a group of objects at the top of the left femur included a knife, and the buckle with it may have suspended a pouch or knife sheath. In grave 16, the ornamental buckle was part of the sword belt, and the small iron buckle 16.7g (Fig 27) was very near the shield boss and rivets, and no doubt fastened a suspension strap on the shield.

As to other belt mounts, associated with cremation 2 (besides a bronze nail) was a fragment of bronze tube C2.1 (Fig 39). Although rectangular in section it is very similar to the D-sectioned bronze tubes, some of which were ornamented with quoit brooch style (Evison 1965, 50, 67, plate 13a) and which appear to have been used in connection with belts or straps.

A form of strap end which also began in the fifth century is the double plate with rounded end, 23.8 (Fig 29), for this also occurs with quoit brooch style animals (Evison 1965, plate 11a). Belt mounts of continental origin of the late sixth and seventh century are the triangular mount 16.3 (Fig 27) and the rectangular mount with four prominent rivets 1.5 (Fig 22; Böhner 1958 2, Taf 36.8c, Taf 39.1b).

Enough remains of the bronze strap end C2.2 (Fig 39) to show that it is a late Roman type. Decoration is limited to moulded parallel ridges at the narrowest point, and possible traces of facetting along the edge between the two rivet holes. Comparison with other strap ends of this type shows that there may have been no further decoration on the missing part. Grave groups on the Continent with this type of strap end are: Bremen-Blumenthal, grave A (Böhme 1974, Taf 6.6–10); Nijmegen, Broerstraat, grave 159 (Böhme 1974, Taf 84.11–18); Looveen, Drenthe, grave 1 (Werner 1958, Abb 18). At Krefeld-Gellep graves 929, 1100 and 1113 there was some stamped or facetted decoration below the moulding (Bullinger 1969, B, Taf LXIV; Pirling 1966 2, Taf 74.21, Taf 91.7a, 15).

In England one was found at Milton-next-Sittingbourne, Kent, probably from a grave group, although not recorded as such (Hawkes and Dunning 1961, Fig 2), and one at Dorchester, Oxfordshire (Werner 1958, Abb 8, 1–13; Hawkes and Dunning 1961, Fig 1.1–13). In all of these groups there were cylindrical belt ends, and all had rosette belt mounts, except at Nijmegen which also contained a buckle with fixed plate. The distribution map of the type by Werner (1958, Abb 15, Karte 4) shows occurrences mainly between the mouths of the Elbe and Weser, but also in Holland, one in the Rhineland and one at Dorchester. Another similar example has recently been found not far away from Alton at Itchen Abbas, Hampshire, in a grave also containing a sword, corrugated leaf-shaped spearhead, knife and cylindrical belt end (Youngs *et al* 1985, 180–1). The date of the strap end type is the first half of the fifth century.

Personal Equipment

Knives

Because of the bad state of the iron, the original shape of the knives is not always clear, as from graves 4, 17 and 23. It was possible to distinguish six types at the Dover cemetery, but at Alton only the first four types have been found. Type 1 (Fig 8), with both back and cutting edge curving to the point, is the most frequent, occurring in fifteen graves: 7, 9, 12, 14, 19, 21, 26, 29, 30, 33, 34, 35, 37, 47 and 49 (Figs 25, 26, 28, 30, 31, 32, 33 and 37). This type was most numerous at Dover also, and was in use throughout the period of the cemetery, a range from cAD 475–750. Type 2 has a straight back and curved cutting edge, and there are only four of these, in graves 6, 11, 24 and 44 (Figs 24, 25, 30 and 36). Type 3, with an angled back and curved cutting edge, occurred in graves 1, 27, 36, 41, 42 and U2 (Figs 22, 30, 33, 34, 35 and 38), and the largest knife or seax in grave 4 (Fig 24) is also of type 3. Types 2 and 3 also had a wide time span at Dover. Type 4, with a curved back and straight cutting edge, occurred in graves 16, 40 and probably 39 (Figs 27, 34 and 33). It is a late type, and at Dover was in use from cAD 625–750 (Evison 1987, 113, Text Fig 26). At Alton, type 4 occurred in grave 16 which belongs to the seventh century, and this grave, together with 39 and 40, was orientated south-north.

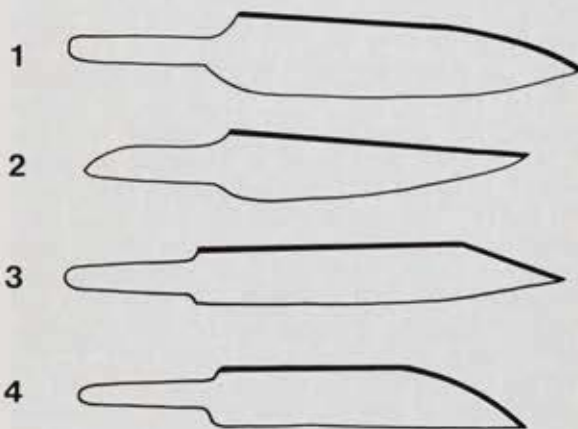


Fig. 8. Alton Anglo-Saxon cemetery: knife types.

The only people buried without a knife were those with no possessions at all, infants or juveniles 15, 18, 28, 31, 38 and 46 (toggle only), old females 20 and 25, female 13, male 32, one old female with small long brooches and beads 43, and one male with spear and shield boss 45. Knives with slender, narrow blades occurred in female graves 9, 12, 14, 21, 23 and 35, but sometimes also with men, 34 and 44.

Examination of the remains of the grip has established that some, if not all, were probably made of horn (see report by Jacqui Watson). A groove is visible along one face of 1.6, 26.1, 36.2, 37.5 and 42.2, and a line indicating the welding of cutting

edge to the back is visible on the radiographs of 1.6, 6.2, 21.1, 26.1, 37.5, 39.3 and 49.3.

Toilet sets

There were featureless fragments of bronze tweezers in cremation 7: C7.15, C7.14 and possibly also C7.8 (Fig 40). Two found in inhumations were more complete. Only one side of 35.5 (Fig 32) remains, decorated with two double transverse lines, faceted edges and borders of punch marks. The tweezers 2.6 (Fig 23) are similar in size and shape, decorated again with double transverse lines and with nicked edges. Miniature iron tweezers were included in the toilet set in cremation 27 (Fig 42). Similar, miniature iron toilet sets which included tweezers occurred at Caistor-by-Norwich, mainly in fifth-century pots of Anglian type (Myres and Green 1973, 103ff). There were two iron tweezers in grave 41 (Fig 34 41.7c).

A bronze toilet set, consisting of two pins or prickers and an earscoop was found in the female grave 27 at Alton (Fig 30), and two bronze prickers on a ring occurred in grave 37 (Fig 33).

Miniature comb

A recent discussion of this type of object (Myres and Green 1973, 97) pointed out that they occur rarely on the Continent, and in this country have been noted at Loveden Hill (Lincolnshire), Bidford-on-Avon (Warwickshire), Castle Acre (Norfolk), Caistor-by-Norwich, Abingdon and Lackford. Further examples have more recently been published from Spong Hill (Hills 1977, 28, Figs 111.1433, 1454, 113.1500; Hills and Penn 1981, Fig 175.2211) and Highdown (Welch 1983 ii, Fig 117c). These are of various shapes, but round-backed ones similar to Alton C24.2 (Fig 41) were found at Abingdon in cremations 2, 9, 10 and 11 (Leeds and Harden 1936, plates III and IV). The pots in which they were found were undecorated, and the only associated objects were miniature shears, knife and toilet implements with cremation 9, as well as a dark blue glass bead and bronze fragments. A similar type of comb at Caistor-by-Norwich, R12B (Myres and Green 1973, 97, Fig 16) has a round back but widens at the teeth, and the pots associated with this type of comb, *Buckelurnen* Groups II and V and urns with vertical grooves and bosses, give a date range to the end of the fifth century. A similar comb at Loveden Hill, 59.151, was found with a fragment of a triangular comb in a *Buckelurne* of Group V (Eagles 1979 i 69, ii 348 Fig 101.598). Like Alton cremation 24, Abingdon cremation 82 also contained a bronze pin, needle, and some fused glass, as well as a sherd. The contents of Abingdon cremation 11 were also similar: a bronze pin, a pin or needle, fused glass and a burnt square-headed brooch. An urn at Lackford with vertical shoulder bosses (Lethbridge 1951, Fig 28.49, 17; Myres 1977 2, Fig 82.979) contained a stamp-decorated miniature comb, together with a pin with faceted head very similar to that found with Alton cremation 24. Cremation 24 at Alton was

deposited on top of cremation 23, and the panelled and stamped decoration of its pot indicates a date in the early sixth century. In spite, therefore, of the early date suggested by the Roman type of bronze pin in Alton cremation 24 and the shape of the miniature comb (see the continental examples in iron: Zimmer-Linnfeld *et al* 1960, Taf 20.155b, Taf 23.171b, Taf 133.1075), these factors and the association in Abingdon cremation 11 of a square-headed brooch establish a date for deposition nearer the first part of the sixth century.

Playing pieces

Two spherical pebbles, one buff and one black, both 2.1cm in diameter were found inside the bucket in grave 27 (Fig 31). There can be no doubt, therefore, that they had been carefully selected for colour contrast and similarity of size and shape, and the fact that they were found inside the bucket, in company with other possessions, a bone pin and an iron nail, indicates that they had been selected for some purpose, perhaps for gaming. The clay cube found by the skull in grave 7 (Fig 25 7.4) shows no sign of any marking, but it could perhaps have been used as a die in a game if spot numbers had been painted on.

Roman objects

The small octagonal bronze plate C7.9 (Fig 40) bearing the Roman numeral XVI is probably a Roman theatre ticket, and numbers of counters of similar size have been found with letters or numbers on one side, but of varying shapes and materials (Liversidge 1973, 371, Fig 133a-g).

The bronze key 41.5 (Fig 34) is a Roman type which has been found in other early Saxon graves, for example at West Overton, Wiltshire (Evison 1965, 40, Fig 21a), Dorchester (Kirk and Leeds 1952-3, plate VA) and Ozingell, Kent (Smith 1854, plate VI, Fig 8). There are examples from Roman contexts at Great Chesterford (Liversidge 1973, 81, Fig 29d) and Richborough (Bushe-Fox 1932, plate XIII.41).

Containers

Buckets

Very little wood of either bucket 2.4 or 27.8 remained, but there was enough to indicate that the first, and probably also the second, was of yew. The larger bucket, 27.8 (Fig 31, plate IIa), was bound by less substantial bronze bands, and not enough remained of the lower two hoops to establish whether the walls were vertical or spreading slightly at the base. There is no evidence regarding the construction of the base, for the vertical bands stop short at the lower edge of the lowest hoop. It is roughly fashioned, with no decoration. The handle is of iron and flattened at the top.

The bronze bands used for 2.4 (Fig 23, plate IIb)

are more sturdy, a preserved so that it is slightly wider at the base than the base was raised about 8mm from the uprights were folded through the wood. The bronze band does not appear to have a dot decoration on 2.4 vertical strips there containing further runes. There is nothing would suggest a date the first or second

Pottery

Two pots are complete: for example, cremations 4, and others, a certain amount distinguished. A number and the angle is different by the draught iii, C11.1a and C4 probably slightly e- abraded Roman she fills, cremations and

The Roman cook said to have been found similar to a form (umberland), and date 16, Fig 17.147). The burnished pottery in detailed study (Wil

The fill of grave 6 including a fragment (6.3), a well-known century (Myres 1977 C4.1b (Fig 39) are in a similar carinated must represent the cremation disturbed century cremation

The tall, narrow plate IIc) has been types of pedestal connections. Complete fragmentary pot from Drenghsted, Denmark two being very close scheme of decoration with the Alton pot as a pedestal. A similar Down (Myres 1977 being narrower in diameter. The Canterbury pot no longer extant, but 1936, plate XIIIa) shows longitudinal grooves as shown in the drawing

are more sturdy, and the hoops are completely preserved so that it can be seen that the shape is slightly wider at the base than at the top. It is evident that the base was raised and fixed to the inside of the staves about 8mm from the bottom because the four uprights were folded under to this height and riveted through the wood. The bronze handle, with a thinner bronze band soldered along the top of it, does not appear to have a parallel. There is some *repoussé* dot decoration on 2.4, and at the top of one of the vertical strips there is a lightly scratched rectangle containing further scratch marks looking similar to runes. There is nothing distinctive on either which would suggest a date, but the two graves belong to the first or second phase of burial at Alton.

Pottery

Two pots are complete (3.1 and C44.1); the rest have been restored as far as possible. Some are nearly complete: for example those in inhumation grave 14, and cremations 4, 12, 14, 16, 20, 24 and 31. In others, a certain amount of form or decoration can be distinguished. A number of rim fragments are small and the angle is difficult to determine. Some, illustrated by the draughtsman as vertical (C7.1a, ii and iii, C11.1a and C43.1 on Figs 40 and 42), were probably slightly everted. There were also a few abraded Roman sherds and tile fragments in grave fills, cremations and in the topsoil.

The Roman cooking pot, cremation 44 (Fig 42), said to have been found in the fill of grave 2, is very similar to a form found at Housesteads (Northumberland), and dated to AD 290-370 (Gillam 1968, 16, Fig 17.147). The whole Romano-British black burnished pottery industry has been subjected to detailed study (Williams 1977).

The fill of grave 6 contained five sherds of fabric 4 including a fragment of a faceted carination (Fig 24 6.3), a well-known bowl form of the early fifth century (Myres 1977 1 18-19, 2 Fig 95). The sherds C4.1b (Fig 39) are in the same fabric and the form is a similar carinated bowl without the faceting. It must represent the remains of an early fifth-century cremation disturbed by the deposition of the fifth-century cremation pot, C4.1a.

The tall, narrow pedestal pot from grave 3 (Fig 24, plate IIc) has been compared by Myres with other types of pedestal pot in seeking support for Jutish connections. Comparison has been made with a fragmentary pot from Bifrons (Kent) and one from Drengsted, Denmark (Myres 1970, Fig 7.4, 2), these two being very close to each other in their shape and scheme of decoration, but having little in common with the Alton pot save a similar tall, narrow form on a pedestal. A similar pedestal pot from Chessel Down (Myres 1977, Fig 202.3629) is recorded as being narrower in diameter in Arnold (1982, Fig 19). The Canterbury pot (Myres 1977, Fig 202.1077) is no longer extant, but a surviving photograph (Leeds 1936, plate XIIIa) shows the decoration to consist of longitudinal grooves rather than well-defined bosses as shown in the drawing. As may be seen from Fig 24

here, the decoration of the Alton pot is hardly recognisable as showing the well-defined bosses of Myres (1977 Fig 202.3196), it being more in the nature of a five-sided pot. In fact, these two, and the Eastry, Kent, pot (Myres 1977, Fig 202.3087) as well, are likely to be examples of Germanic copying of a late Roman form, in this instance the thumb pot (Gillam 1968, Fig 7.46, 53, 54) which continued into the late fourth century, and one of which, a New Forest ware beaker, occurred in grave 82 at Highdown (Welch 1983 ii, plate VI). If this is, in fact, the source of inspiration, invocation of foreign connections is unnecessary and the date is likely to be in the first half of the fifth century.

The pot in cremation 23 (Fig 41) consisted of a flat pot base, and one matching decorated fragment had diagonal lines and a slashed diagonal long boss. This decoration is similar to that of the sherds C32.1 (Fig 42) where there are long, slashed bosses, both diagonal and vertical, and there is a slashed collar on the neck of the pot. Both cremations 23 and 32 therefore belong to the fifth century.

The pot of cremation 1 (Fig 39) is decorated with bosses and also a line-and-dot scheme where triangles are combined with dots as on pots from Abingdon and Howletts, Kent (Myres 1977 1 24-5, 2 Figs 128.4066, 129.453), and which may be dated to early or mid-fifth century, a date supported at Alton by the accompanying spiral saucer brooches.

As to cremation pot C4.1a (Fig 39), urns which are decorated with shoulder bosses framed in a triangular-stamped border are considered by Myres (1977) in connection with the large group of pots decorated with stamped triangular panels: St John's Cambridge (Myres 1977, Fig 327.272); Girton, Cambridge (Fig 332.241); West Keal, Lincolnshire (Fig 334.512, 4062); Pitsford, Northamptonshire (Fig 336.802). If this is the context to which they belong, they would be of like date, that is, the middle of the sixth century. However, an early pot with framed, slashed bosses from Mucking (Myres 1977 1 56, 2 Fig 336.3759) has connections with the zoomorphic long boss style of the fifth century, and the pot from Highdown (Myres 1977, Fig 206.2438) is particularly close to Alton C4.1a with its shield-shaped slashed boss with a similar framed border of ring stamps. Early characteristics to be noted on the cremation 4 pot are the finger-tip rosettes on the bosses, descendants of the rosettes on the Cuxhaven-Galgenberg type of continental pot, as at Caistor-by-Norwich and Brundall, Norfolk (Myres 1977, Fig 167.1659, 2391) and there are stamped rosettes on a *Buckelurne* with *stehende Bogen* from Sandy, Bedfordshire (Myres 1977 2, Fig 189.328; Brown 1915 IV, plate CXXXIII, 5). For a continental predecessor of round bosses with a stamped frame see Westerwanna C709 (Zimmer-Linnfeld *et al* 1960, Taf 93.709). As the cremation 4 pot also has a slashed collar, a fifth century date may be concluded. The rosette stamps of C26.1 and C46.1a and the bossed sherd U11 (Figs 42 and 38) are also likely to belong to the fifth century.

The urn C24.1 (Fig 41) is a narrow-necked, spherical pot with irregular stamping in vertical

panels on the top part of the vessel. This is similar to Myres (1977, Fig 143.1171) from Castle Acre which has a similar cross-in-circle stamp and an eight-armed cross-in-circle stamp. Potter IX at Caistor-by-Norwich also worked in zones with vertical divisions and used two similar stamps on his pot (Myres and Green 1973, Fig 56 Y31; Myres 1977 2 Fig 159.1923). Potters II and III at Caistor-by-Norwich also arranged stamps in vertically divided zones, and their work is attributed to the mid-sixth century (Myres and Green 1973, 62-3). The Alton cremation 24 pot contained a miniature comb, bronze needle, pin of Roman type and a fused glass lump, and was buried partly on top of cremation 23 so that an early sixth-century date is likely.

Cremation 12 (Fig 40) is a hollow-necked biconical pot with bosses on the low carination and two forms of trellis stamp encircling the neck and hanging in pendant shields. The form is similar to plain bossed urns from Caistor-by-Norwich and Newark (Nottinghamshire), and a more spherical urn with bosses from Newark is also stamped between the bosses with a faulty trellis-in-circle stamp (Myres 1977 2 Figs 79.1792, 81.3447, 80.3889). Other pots with unframed stamps between are shown by Myres in his Fig 119, of which only the pot from Loveden Hill is similar in shape (Myres 1977 2 Fig 119.3241). The form appears to belong to the fifth century (Myres 1977 1 11), but for the stamped versions Myres favours a date in the sixth century (1977 1 22).

The undecorated pots include two variations on the biconical form, cremations 14 and 16 (Figs 40 and 41). More distinctive is the globular bowl, cremation 20 (Fig 41), as at Highdown, Hassocks, West Sussex, and Dorking, Surrey (Myres 1977, Figs 46.3846, 46.3649 and 46.3659). Three from Hanwell (London) are also similar (Myres 1977, Fig 47.3113, 3115 and 3116). An example possibly from Fareham (Hampshire) has a cross-marked base (Myres 1977 2 Fig 47.1149; Hawkes 1968, 58-9, Fig 24.3). The small size of the pots (C14.1 and C20.1) serves to emphasise the fact that small pots as well as large ones were used for cremations, and the nomenclature of accessory vessels is misleading (Myres 1969, 228; Hawkes 1968, 59). The shouldered bowl with bead rim, C31.1, is not a common shape. It is, however, pretty closely dated by the accompanying square-headed brooch of the first half of the sixth century. The decorated Germanic pottery at Alton is therefore all of Saxon origin, showing the fifth-century characteristics of bosses, corded collars and rosette patterns, and sixth-century stamps.

The fabrics of early Anglo-Saxon pottery in Hampshire are under investigation at Southampton University, and it is hoped that the pottery from this cemetery will be included in this study. For the present purpose visual examination shows that some sand or grit tempering is present throughout to a lesser or greater extent, and some fabrics contain a considerable amount of vegetable matter. There is

often a great deal of variation between one part of a pot and another, particularly in the colours of the fabric and surface appearance, but also in the temper content, so that it is sometimes difficult to come to conclusions as to whether two sherds belong to the same pot or are in identical fabric. The fabrics have been sorted in a general fashion into five main types, as may be seen from Table 9 (distribution plan Fig 55), and are described as:

Fabric 1 - vegetable temper

Fabric 2 - fine sand temper

Fabric 3 - coarse sand temper

Fabric 4 - grey ware, sharp black grit

Fabric 5 - thick brown ware, black grit

The decoration of the pots shows some evidence of fidelity to fabric. Fabric 5 occurred only as sherds in the fill of grave 14, presumably a disturbed cremation and so earlier than the pot in grave 14 (fabric 1). Fabric 4 occurred only as fragments of carinated bowls in grave 6 and cremation 4, early fifth-century types. Fabric 1 also occurred in early pots: the pedestal pot in grave 3 and the bossed pots in cremations 4 and 32. There are also two sherds with rosette stamps in fabric 1 and the plain, complete or nearly complete pots: grave 14 and cremations 14, 16, 20 and 31. Probably equally early is fabric 2, sherds with line decoration, U10, C7.1b, C22.1 and C23.1 with a long, slashed boss, though C24.1 has stamped decoration. There are also bosses in fabric 3 (U 11), bosses with triangles and dots (C1.1), and bosses with stamps (C12.1). All of the fabrics therefore were in use in the fifth century but there are no examples of fabrics 1, 4 and 5 in the sixth century. This may be significant in the case of fabric 1, where there are many examples, but the available amount of fabrics 4 and 5 is too small for conclusions to be drawn.

Wooden box

Four small clamps, 16.10a-d (Fig 28), were found near to each other and about 4in (10cm) above the floor of the grave beside the left shoulder of the skeleton. There were traces of transverse wood grain on the inner surface of one, and they had been clamped through wood which was 1.4cm thick. This must have been a small but robust wooden box.

Wooden cups

Two silver rims, 16.8 and 9 (Fig 28), U-sectioned, were fastened by fluted bands to turned beech cups. A similar silver rim occurred in grave 32 at Dover, and two others with further ornamentation were in grave 29 (Evison 1987, 105, Fig 19, 32.7, Fig 17, 29.12a-b). The original height of the Alton cups was probably a little over 10cm, as this was the position of one of the rims apparently *in situ* above the floor of the grave. The rims at Dover occurred in graves allocated to phase 3, AD 575-625.

Table 9. Alton Anglo-Saxon Pottery

Fabric types

1
3.1
14.6
16 = C46
18
19.3
23 = C32
40 = C43

C4.1a C28
C5.1 C29.1
C6.1 C31.1
C9.1 C32.1 (pa
C11.1a C33.1
C14.1 C35
C15.3 C40
C16.1 C43.1 (in
C19.1 C46.1 (pa
C20.1
C21.1
C26.1

Table 9. Alton Anglo-Saxon cemetery: occurrence of pottery fabric types.

Fabric types		2	3	4	5
1					
3.1		24.3b	12	6.3	14.7a
14.6		U10	14.7b		
16 = C46			19 = C27		
18			24.3a		
19.3			26		
23 = C32			27		
40 = C43			38		
			41		
			U11		
C4.1a	C28	C7.1b	C1.1		C4.1b
C5.1	C29.1	C11.1b	C7.1a		
C6.1	C31.1	C15.3	C12.1		
C9.1	C32.1 (part in 23)	C22.1	C15.1		
C11.1a	C33.1	C23.1	C15.3		
C14.1	C35	C24.1	C27.1 (part in 19)		
C15.3	C40		C37		
C16.1	C43.1 (in 40)				
C19.1	C46.1 (part in 16)				
C20.1					
C21.1					
C26.1					

Skeleton position

The position of the skeleton in seven graves: graves 10 and 11 were excavated as they were in a garden, 49 was found in a garage, no bones were found in grave 8 there were fragments of a neonate. The position of the skeleton in graves 10 and 11 previously excavated the bones were not available. The skeleton was sufficient to be distinguished although there was disposition of skull, the body was bent at an angle with the head to the left, male and six female, right, seven male and buried with one foot these graves being north-south and 23 so the right side: 7, 16, two female. A girl of propped up in a semi-

Slight displacement of animals was evident in cranium had been rotated in situ, and rotated fingers and bones distance from the wrist was the position of the 37 (Fig 47), where the shoulder, which were facing shoulder. It would have displaced indication that the top up so that the skull conclusions can be drawn, possibility of mutilation before burial cemetery excavated with and associations in was near to 35 with similar brooches, buried next to two ch

Chapter 3

Discussion

Skeleton positions and the human bones

The position of the skeleton is not known in regard to seven graves: grave 5 was partly under the bungalow, graves 10 and 48 were located only and not excavated as they were almost entirely in the next garden, 49 was found later by a neighbour constructing a garage, no bones remained in 18 and 38, and in grave 8 there were fragments only of skull and ribs of a neonate. The positions of the skeletons in the previously excavated graves 1-4 were recorded, but the bones were not available for study. The position of the skeleton in grave 5 is not known, but the bones were available. Out of forty-two graves where the skeleton was sufficiently well-preserved for position to be distinguished, thirty-four were supine, although there was considerable variation in the disposition of skull, arms and legs, and sometimes the body was bent at the hips so that the legs were at an angle with the body. There were thirteen graves with skull to the left, three recognisable as definitely male and six female, and sixteen with skull to the right, seven male and eight female. Three women were buried with one foot crossed over the other, two of these graves being near together, 14 and 20, but all three were differently orientated, 14 east-west, 20 north-south and 23 south-north. Five were buried on the right side: 7, 16, 21, 41 and 45, three male and two female. A girl of ten was on her left side and propped up in a semi-sitting position in grave 27.

Slight displacement of some bones by nesting animals was evident in grave 42 (Fig 47) where the cranium had been rolled back while the lower jaw remained *in situ*, and in grave 35 where the articulated fingers and bones of the right hand were some distance from the wrist. More doubtful, perhaps, was the position of the skull of the woman in grave 37 (Fig 47), where the articulated skull and mandible, which were facing right, were lying on the right shoulder. It would have been a large animal that could have displaced this amount and there was no indication that the top part of the body was propped up so that the skull could have slid down. No conclusions can be drawn regarding the, perhaps remote, possibility of deliberate beheading or mutilation before burial, as the proportion of the cemetery excavated was small, but regarding position and associations it may be noted that grave 37 was near to 35 with similar orientation, both women with button brooches, and the female in grave 37 was buried next to two children.

The body of the old woman in grave 21 (Fig 45) was placed in the grave with legs drawn up to the right, and the right arm sharply bent in a unique position with the hand on the neck. Perhaps this illustrates the pain the old lady might have felt from the arthritis in her vertebrae, and the fusion of two cervical and two upper thoracic vertebrae (below, 59). According to the bone report, the right clavicle of the woman aged over forty-five in grave 25 is very bent, probably the result of an old, healed fracture. A consequent weakness of the right chest region is probably shown by the decay of the ribs on the right while the ribs on the left have survived (Fig 45). It was possible to excavate only the skull of the man in grave 22 (Fig 45), as most of the grave was in the next garden. On the cranium there were two clear cuts, one of them circular, so that the possibility of an intentional trephine operation has been discussed (below, 64) in respect of one of them.

In each of graves 7 and 45 (Figs 43 and 48) was a man with a spear, in an unusual position on his right side with knees drawn up. The bone report shows that each had a physical disability, 7 with a defective back and 45 with a defective leg, so that there may have been a connection between the warrior's prowess and method of burial. A large proportion of the people represented by the excavated remains suffered from dental disease or damage to bones by disease or accident.

The cremations yielded only tiny fragments of burnt bone, and so little information can be gained from them that it was only possible to identify sex with certainty in one cremation, 4.

Identification of sex by examination of the bones was at variance only three times with identification of sex by grave goods, as may be seen from Table 11: beads occurred in graves 12 and 39 but they were judged to be male on the evidence of the bones by Miss R. Powers and Mr D R Brothwell. Grave 6 contained a spearhead and knife, but the bones were considered to be female. In these cases sexing by grave goods is given preference.

Further small fragments of cremated bone were examined by Alison Cameron, University of Bradford, from cremations 1, 4, 6, 7, 10, 12, 13, 19, 31, 32, 33, 34, 35 and 46, and this work produced the following information: 7, middle-aged adult?; 12, middle-aged adult; 32, ?old adult. These results are incorporated in Table 11.

Table 10. Alton Anglo-Saxon cemetery: positions of bones.

SUPINE BURIALS

Grave	Other details	Grave	Other details
2	skull R, R arm slightly bent	44	skull R, R arm slightly bent, hand in pelvis
4	skull R, L arm slightly bent and away from body	46	skull down L, forearms missing
6	skull R, L arm slightly bent	47	skull R, both arms slightly bent, L hand in pelvis
9	skull R, hands in pelvis		
11	skull R, L hand in pelvis		
12	skull L		
13	skull R and down, L leg bent		
14	skull R, body bent at hips, L hand in pelvis, feet crossed		
15	skull L, arms and legs bent		
17	arms slightly bent		
19	L arm and legs slightly bent		
20	skull down and R, R arm bent, hands on L pelvis, feet crossed		
22	skull R, incomplete		
23	skull L, arms slightly bent, feet crossed		
24	skull L, L arm slightly bent		
25	skull L, R forearm across waist		
26	skull R, R leg slightly bent		
28	skull, L, body bent at hips		
29	skull R, body bent at hips, L arm bent		
30	disturbed		
31	most bones missing		
32	skull L, body bent L at waist, R forearm across waist, L arm slightly bent		
33	skull R, body bent at hips, arms slightly bent		
34	skull down L		
35	skull down L, R hand between femora		
36	skull R, R arm slightly bent		
37	skull R on R shoulder, body bent at hips, L forearm across waist, R arm slightly bent, R leg slightly bent		
39	skull L, L arm slightly bent, incomplete		
40	skull L, L arm slightly bent		
42	R arm slightly bent, cranium displaced		
43	skull L, both arms bent and away from body		

NON-SUPINE BURIALS

1	on R side, R arm at side, L arm bent
3	on R side, most destroyed
7	on R side, L arm bent across body, both legs bent
16	on R side, R arm in front of body, bent at hips
21	on R side, R arm bent with hand on neck, L arm bent with hand midwaist, both legs bent
27	on L side, in semi-sitting position, L arm displaced, R arm bent, legs bent feet together
41	on R side, R arm bent across waist, L arm bent, hand in pelvis, legs bent, crossing at shins
45	on R side, skull destroyed, hands crossed on pelvis, both legs bent to R

POSITION NOT KNOWN

5	no record
8	few bone remains
10	not excavated
18	no bones
38	no bones
48	not excavated
49	no record

Table 11. Alton Anglo-Saxon cemetery: sex according to grave finds and by analysis of bones.

Grave	Sex by grave finds	Bone analysis: sex and age	Discrepancy
1	M	(no bones available)	-
2	M	(no bones available)	-
3	?	(no bones available)	-
4	M	(no bones available)	-
5	?	(no bones available)	-
6	M	Young person or F	-
7	M	F, c24-27	X
8	Ju	M, c24-27	-
9	F, Ju	Newborn baby	-
10	(not excavated)	Ju, 7	-

Table 11 continued

Grave	Sex by grave finds
11	?F
12	F
13	? (no finds)
14	F
15	?Ju
16	M
17	?Ju
18	?Infant (no finds)
19	F
20	? (no finds)
21	?
22	?M (no finds)
23	F
24	?
25	? (no finds)
26	?
27	F, Ju
28	Ju (no finds)
29	Ju
30	?
31	Ju (no finds)
32	? (no finds)
33	F
34	M
35	F
36	M
37	F
38	Infant (no finds)
39	F
40	M
41	F
42	M
43	F
44	M
45	M
46	?F, Ju
47	F
48	(not excavated)
49	?
C1	M
C2	F
C3	?
C4	(no finds)
C5	?
C6	?
C7	F
C8	(no finds)
C9	?
C10	F
C11	(no finds)
C12	?
C13	F
C14	?
C15	?
C16	(no finds)
C17	?
C18	(no finds)
C19	(no finds)
C20	?

Table 11 continued

Grave	Sex by grave finds	Bone analysis: sex and age	Discrepancy
11	?F	Youth, sex uncertain, 16-18	-
12	F	M, ?50 or older	X
13	? (no finds)	F, c20	-
14	F	F, c23	-
15	?Ju	Infant, 2	-
16	M	M, c28	-
17	?Ju	Ju, 6½-7	-
18	?Infant (no bones or finds)	-	-
19	F	Infant, 4	-
20	? (no finds)	F, 50 or older	-
21	?	F, 50 or older	-
22	?M (no finds)	M, c25	-
23	F	F, c35	-
24	?	Youth, ?M, c15	-
25	? (no finds)	F, over 45	-
26	?	M, 16-19	-
27	F, Ju	Ju, c10	-
28	Ju (no finds)	Infant, c18 months	-
29	Ju	Ju, 7-8	-
30	?	M, 25-30	-
31	Ju (no finds)	Ju, c4	-
32	? (no finds)	M, c18	-
33	F	F, 50 or older	-
34	M	M, 20	-
35	F	F, c30-35	-
36	M	M, c35-40	-
37	F	Youth, sex uncertain, c16	-
38	Infant (no bones or finds)	-	-
39	F	M, probably over 50	X
40	M	M, old	-
41	F	Youth, 16-17	-
42	M	M, c30-35	-
43	F	F, over 45	-
44	M	?M, over 45	-
45	M	M, adult	-
46	?F, Ju	Infant, 3	-
47	F	F, c35	-
48	(not excavated)	-	-
49	?	(a) Ju, 6-8	-
	M	(b) Adult, ?M	-
C1	F	Adult, F, or possibly youth	-
C2	?	Adult, ?F	-
C3	(no finds)	F or youth	-
C4	?	M, adult in prime of life	-
C5	?	-	-
C6	?	Adult	-
C7	F	Possibly, but not certainly human, ?Ju, ?middle-aged adult	-
C8	(no finds)	?Adult	-
C9	?	?Human	-
C10	F	Human	-
C11	(no finds)	?	-
C12	?	Middle-aged adult	-
C13	F	-	-
C14	?	Adult, ?M	-
C15	(no finds)	?Ju	-
C16	?	?	-
C17	(no finds)	?	-
C18	(no finds)	?	-
C19	?	?	-
C20	?	Ju or senile	-

Table 11 continued

Grave	Sex by grave finds	Bone analysis: sex and age	Discrepancy
C21	?	?	-
C22	?	?Human	-
C23	?	-	-
C24	?F	?Adult	-
C25	(no finds)	?	-
C26	?	Elderly person or ?youth	-
C27	?	Adult	-
C28	(no finds)	?	-
C29	?	Adult	-
C30	(no finds)	Probably elderly person or youth	-
C31	F	Elderly adult, ?F	-
C32	?	Adult, ?M, ?old	-
C33	F	?	-
C34	(no finds)	?	-
C35	(no finds)	?	-
C36-42	(no finds)	-	-
C43	(no finds)	?Human	-
C44-45	?	-	-
C46	?	?	-

Age at death (Table 12)

Of the seventeen definite male inhumations, five are identified only as adult, two are over forty-five and two thirty to forty. There were, however, six who died in their twenties, and two in their 'teens. Few, therefore, lived to old age. On the other hand, of the fifteen or sixteen females, five were over fifty, two over forty-five, and three between thirty and thirty-five. Two died in their twenties, and three between sixteen and eighteen. Of the juveniles (Table 13), one was fifteen years old, one was ten, four between six and eight, and six were four or under. Two others, of which no bone remained, were juvenile of unknown age but are presumed to be infants as the graves were only 2ft 4in (0.71m) and 2ft 6in (0.76m) long. The numbers of the sexes were therefore roughly equal, with the women surviving longer than the men, and this tallies with the data generally available from Anglo-Saxon cemeteries. Judging from the number of juveniles and their range of ages, including one new-born, the children were usually buried in the same cemetery as the adults. In some cemeteries the number of children was substantially lower, and at Dover and Polhill in Kent there were no infant graves (Evison 1987, 128).

The bone fragments from the cremations are less informative. When considered together with the evidence of the finds, of the nine definite adults one was definitely male and two possibly male, one was female with one other possible female. There were no definite juveniles, but two were possibly juvenile and three juvenile or senile. The available numbers are too small for any validity to be attributed to the hint of female preponderance in cremation with relative scarcity of juveniles.

A number of infants were buried without grave goods, in graves 8, 15, 18, 28, 31 and 38. One

possibly female infant three years old (grave 46) was provided only with a bone bead, possibly a fastening. One infant aged four (grave 19) and all the other children and adolescents were provided with beads, knives, *etc.*, as their elders were (graves 9, 11, 17, 24, 26, 27, 29, 37 and 41). The orientations of the graves were as varied as those of the adults, six west-east, three or four south-north, four or five which constitute most of the graves which were orientated northwest-southeast (26, 28, 29, 38 and 46) and three or four out of the total of four or five north-south graves (15, 18, 27 and 31). It appears, therefore, that the northwest-southeast and north-south orientations were particularly appropriate for children.

Burial structures

Inhumations

There was little remarkable about the shape of the inhumation graves as they were fairly regular and usually rounded at both ends. The graves of infants and small children were small, and the only grave of exceptional size was the sword grave, 16 (Fig 44).

One grave, 26 (Fig 46), had a semi-circular slot 5in (13cm) deep at the foot of the grave. This was presumably for some kind of vertical marker, but there is no obvious reason why a young man between 16 and 19 years old should have been singled out for this treatment.

Most of the graves in the eastern section were slightly deeper than those in the western section (Table 14), which suggests that more of the surface of the chalk had been lost by ploughing or levelling to the west. A number of infant and juvenile graves, however, are among the shallow graves: 8, 17, 31 and 38. The depths of all the graves were between

Table 12. Alton Anglo-Saxon

INBURMATIONS

Males
Adult
16-19 years
20-30 years
30-40 years
45+ years
Females
Young or female
16-18 years
20-30 years
30-35 years
45+ years
50+ years
Juveniles
4 years or under
6-8 years
10-15 years

CREMATIONS

Adult
Adult
Male adult
Female adult
Female, old
Female, adult or ?
Female adult
Female
Female, adult
Female, juvenile or ?
Female or youth
Juvenile
Juvenile or senile

Table 13. Alton Anglo-Saxon

Grave Age

5	Young person
8	Newborn
9	F, 7
11	F, 16-18
15	Infant, 2
17	Ju, 6-7
18	Infant, no bone
19	F, infant, 4
24	?M, c15
26	M, 16-19
27	F, Ju, c10
28	Infant, c11
29	Ju, 7-8
31	Ju, c4
32	M, c18
33	F, c16
37	Infant, no bone
41	F, 16-17
46	?F, infant 3
49	Ju, 6-8

Table 12. Alton Anglo-Saxon cemetery: age at death.

INHUMATIONS

	Grave numbers
<i>Males</i>	
Adult	1, 2, 4, 45, 49a
16-19 years	26, 32
20-30 years	6, 7, 16, 22, 30, 34
30-40 years	36, 42
45+ years	40, 44
<i>Females</i>	
Young or female	5?
16-18 years	11, 37, 41
20-30 years	13, 14
30-35 years	23, 35, 47
45+ years	25, 43
50+ years	12, 20, 21, 33, 39
<i>Juveniles</i>	
4 years or under	8, 15, 18, 19(F), 28, 31, 38, 46(?F)
6-8 years	9(F), 17, 29, 49b
10-15 years	24(?M), 27(F)

CREMATIONS

	Cremation numbers (all prefixed C)
Adult	6, 12, 27, 29
?Adult	8
Male adult	4
?Male adult	14, 32
Female, old	31
Female, adult or youth	1
?Female adult	2
Female	10, 13, 33
Female, ?adult	24
Female ?juvenile or ?middle-aged adult	7
?Female or youth	3
?Juvenile	15
Juvenile or senile	20, 26, 30

Table 13. Alton Anglo-Saxon cemetery: juvenile and adolescent graves.

Grave	Age	Major grave goods	Orientation
5	Young person or F	-	SW-NE
8	Newborn	-	W-E
9	F, 7	Beads, knife, pursemount, ring	W-E
11	F, 16-18	Pin, knife, ring, coins	W-E
15	Infant, 2	-	N-S
17	Ju, 6½-7	Knife, ring	W-E
18	Infant, no bones	-	S-N or N-S
19	F, infant, 4	Beads, knife	S-N
24	?M, c15	Knife, buckle	S-N
26	M, 16-19	Knife	NW-SE
27	F, Ju, c10	Bucket, spindle whorl, pin, beads, toilet set, knife	N-S
28	Infant, c1½	-	NW-SE
29	Ju, 7-8	Knife	NW-SE
31	Ju, c4	-	N-S
32	M, c18	-	S-N
37	F, c16	Button brooches, knife, buckle, pins, beads	W-E
38	Infant, no bones	-	NW-SE or SE-NW
41	F, 16-17	Pin, beads, knife, key, buckle	W-E
46	?F, infant 3	Bone bead	NW-SE
49	Ju, 6-8	?	?

Table 14. Alton Anglo-Saxon cemetery: depth of graves.

MALE GRAVES											
Sword			36	45	42	34	44	6	2		16
Spear			40					7			
Weaponless	30					24					
Findless			32		22	26					
FEMALE GRAVES											
Brooch			43	37				14	35	12	
No brooch				47				23			
Findless	33		21	25	41	20		13		11	
JUVENILE GRAVES											
Furnished		17		46	27				19	9	
Findless		31	38	8	29	28	18		15		
	0	10	20	30	40	50	60	90	100		

Graves 1, 3, 4, 5, 39, 48 and 49 – depth unknown.

2in (5cm) and 1ft 10in (0.56m) with one exception, grave 16, which was 3ft 2in (0.97m) deep, and contained a sword and the gold-adorned buckle.

Cremations

As the topsoil depth on this site was very shallow (about 6in or 15cm), very little that protruded above the chalk surface had survived ploughing. The cremation pits were not dug very deeply, a maximum depth of 1ft 2in (35.5cm) being recorded, and in several cases the remains of a pot base was found lying on the chalk surface or in a very slight hollow. It is therefore probable that some cremations had been completely eradicated, leaving no trace. Where a pit was sunk in the chalk the floor was usually flat and the walls vertical, the shape was almost always circular, sometimes oval, once arch-shaped (cremation 10), and once sub-rectangular (cremation 31). In some of the cremations there was no trace of a pot, but cremated bone in dark, greasy earth occupied the centre of the pit, surrounded by light brown silt and chalk fragments, suggesting that the cremated remains could have been deposited in a perishable container such as leather or textile, or simply deposited in the middle of the pit. Analysis for phosphate, however (below 67), showed that the content was consistently low, and that there was no appreciable difference between the central dark deposit and the surrounding silt. The pot containing the cremated debris was sometimes placed on top of the dark deposit, as in the pit of cremation 7 (below).

There was only one cremation clearly subsequent

to another, 24 on 23 (Fig 48), but the secondary group of earlier sherds of a carinated bowl in cremation 4 also suggests one cremation disturbing another.

Cremation 7 (Fig 49). The topsoil in the area of this cremation was a few inches deeper than usual, as the hedge had protected it from the plough to a certain extent, and it contained some sherds and other fragments. The near-circular pit in the middle had a maximum diameter of 1ft 5in (43.2cm), a depth of 9in (22.8cm), and contained cremation debris, black, greasy earth and burnt bone, and on top a number of sherds with iron fragments. It was in the centre of a rectangular structure. A narrow, round-bottomed gully 8–10in (20.3–25.4cm) wide, and varying from 10in (25.4cm) deep on the north side to 3in (7.6cm) deep on the east side, was punctuated by a circular post-hole at each corner, varying from 9 to 14in (22.8 to 35.5cm) deep. In the middle of the east side was a deeper slot 1ft 6in (45.7cm) long, of which the west or inner part was smooth-based and c10in (25.4cm) deep, and the eastern half was a few inches shallower and roughly cut. The cremation was therefore covered by a structure held by four substantial posts, and the slot presumably held a vertical plank 1ft 6in (45.7cm) by 4in (10cm) thick in the deeper part. There is no evidence to suggest the material used for the intervening walls.

The bone fragments are judged in the specialist report (below 65) to be possibly, but not certainly human. There were calcined fragments of bone in the centre pit, one being from a thin skull, and nearby small fragments of calcined long bone. In the

southwest post-hole was of long bone shaft; it possibly an infant radius were two unburnt fragments of bone over the cremated animal, but a human juvenile fibula. skull over the centre of were described as 'mid bone fragments could nearby, destroyed in that cremated objects, up mostly melted but ments untouched by might have escaped u tumbling action of the case here, the thin possibly infant radius southwest post-hole, a might indicate a juvenile could belong to an adult unburnt fragment of the burnt fragments of as all were confined diameter and 7in (17.8 hood of intrusion as report, and the unburnt probably escaped the

Regarding the finds, pot, which has no surviving sherds inside the pit and it are of fabric 3, and of north gully, the west the southwest post-hole 49) could be scattered. Cremation 5 was very cremation 7 and their it seems likely that cremation 7. The sherds of fabric 1, and one sh north gully may belong adorned Roman sherds. fabric 2 (Fig 40, C7.1b) southeast post-hole, a plough scatter from cremation 7. destroyed cremations in

An iron nail, C7.4 (Fig 40) was found in the centre of the cremation. The other objects immediately surrounding the cremation were possibly part of a buckle rim on a ring, C7.2 (Fig 40), a post-hole, about 3in (7.6cm) deep, and a buckle, C7.6 (Fig 40) a iron with bronze inclusion. The gully was a complete metal band, C7.7, 5in (12.7cm) long, a bronze fragment, C7.8, the south gully was the cremation. In the soil immediately surrounding the cremation level were a melted lump of iron strip, C7.11, a flat bronze fragment, C7.12 (recoiled) and two other of which the decor

southwest post-hole was a decayed, unburnt length of long bone shaft; indeterminate, but if human possibly an infant radius, humerus or femur. There were two unburnt fragments of long bone in the topsoil over the cremation, of which one was undoubtedly animal, but the other could have been a human juvenile fibula. Other fragments of a human skull over the centre pit, examined later (below 65), were described as 'middle-aged adult?'. The unburnt bone fragments could have been the scatter from a nearby, destroyed inhumation, but in the same way that cremated objects, such as a glass vessel, can end up mostly melted but with some splintered fragments untouched by fire, some bone fragments might have escaped unburnt in the collapsing and tumbling action of the conflagration. If that was the case here, the thin skull in the centre pit, the possibly infant radius, humerus or femur in the southwest post-hole, and the possibly juvenile fibula might indicate a juvenile cremation. Other bones could belong to an adult. It may be noted that an unburnt fragment of long bone was found amongst the burnt fragments of long bone in cremation 8, and as all were confined in a pit 1ft 4in (40.6cm) in diameter and 7in (17.8cm) deep, there is little likelihood of intrusion as suggested in the specialist report, and the unburnt part had also in this case probably escaped the burning.

Regarding the finds, no date can be assigned to the pot, which has no surviving form or decoration. The sherds inside the pit and on the chalk surface beside it are of fabric 3, and other sherds of fabric 3 in the north gully, the west gully, the south gully and the southwest post-hole (Figs 40, C7.1a, i-iii, and 49) could be scattered fragments of the same pot. Cremation 5 was very close to the west gully of cremation 7 and their relationship is not certain, but it seems likely that cremation 5 was disturbed by cremation 7. The sherds of the pot in cremation 5 are of fabric 1, and one sherd of the same fabric in the north gully may belong to the same pot. Apart from abraded Roman sherds, the only other sherds are in fabric 2 (Fig 40, C7.1b), in the south gully and the southeast post-hole, and it may be that they are plough scatter from cremations 22, 23 or 24, or other destroyed cremations in the vicinity.

An iron nail, C7.4 (Fig 40), was in the centre pit. The other objects immediately above the cremation pit in the centre were an iron sheet fragment, possibly part of a bucket binding, C7.3, and an iron pin on a ring, C7.2 (Fig 40). In the southwest post-hole, about 3in (7.6cm) deep, were a bronze buckle, C7.6 (Fig 40) and a large lump of melted iron with bronze inclusions, C7.5. In the north gully was a complete melon bead and a fragment of amber bead, C7.7, 5in (12.7cm) deep, and a flat bronze fragment, C7.8, 2in (5cm) deep (Fig 40). In the south gully was the octagonal bronze plate, C7.9 (Fig 40). In the soil immediately above the chalk level were a melted lump of glass beads, C7.10, an iron strip, C7.11, a flat bronze perforated fragment, C7.12 (?coin) and two fragments of chip-carved silver of which the decoration of C7.13a denotes the

fifth century (Fig 40). A bronze fragment was just outside the southwest part of the square (C7.14, Fig 40). A bronze tweezer fragment was 3in (7.6cm) above the west gully (C7.15, Fig 40). As some of the sherds in this area were not part of the cremation pot and may have come from elsewhere, it must be kept in mind that the finds in the topsoil above the chalk level could likewise have been moved here.

The only non-Anglo-Saxon object is the octagonal bronze plate bearing the number XVI, a Roman theatre ticket. The animal ornament on the buckle and chip-carved silver fragment, C7.13a, give a fifth to early sixth-century date, and the bead types were common at this time and confirm the female sex of the dead person. The slight bone evidence suggests a juvenile and/or a possible adult, and it is a matter for conjecture whether the burial was of a female infant or whether it was a mother and infant burial.

Cremations 33 and 45. All the sherds were at or near the northwest corner of the rectangle where the hollow for cremation 33 (7in or 17.8cm deep) was cut through by the west side of the rectangular gully (8in or 20.3cm deep; Fig 50). All, except one, belonged to the same pot, so that the sherds, charcoal, burnt bone and two iron fragments belong to cremation 33.

The rectangle had not, like cremation 7, had the advantage of the protection of the hedge from the effects of ploughing, and more of the chalk surface had been skimmed off so that the gully was very shallow on the south side. There was no sign of a central pit, and if there had ever been one, it is possible that it had been razed, along with the pot and the cremated remains. The construction of the rectangle was not, however, identical to that of cremation 7 as there were no corner post-holes, nor a slot in one of the gullies. Instead there were four stake-holes randomly placed within it, which may mean that the cremation was placed on a raised internal structure. As the chalk surface sloped to the south and west, it is possible that there might have been other stake-holes there which did not reach the present chalk surface, or which have been erased by ploughing.

The south and east gullies were devoid of sherds, bones and charcoal. The rim sherd (Fig 42, C33.1) and one dark blue disc bead, in the north gully and southwest corner respectively, are probably scatter from cremation 33. There is therefore nothing, sherds or objects, associated with the rectangle called cremation 45, which can indicate its purpose.

Rectangular structures

A similar rectangular structure to cremations 7 and 45 occurred in the cremation-inhumation cemetery at Spong Hill (Hills *et al* 1984, 12, Figs 1, 3, plan of cemetery in folder at back), where it was just outside, adjacent to and aligned with a Saxon ditch which, aligned with a late Roman ditch, enclosed the ring-ditch burials. It cut inhumation 38 (late fifth

century to early sixth century) and was cut by several cremations, so that its life must have been short, but within the period spanned by the cemetery. It surrounded nothing but two small pits which produced only prehistoric flint flakes. There are therefore some resemblances to the Alton rectangles, but the size, between 6 and 7 metres long, is considerably larger.

Two rectangular structures were found by Lethbridge (1951, 8) in the cremation cemetery at Lackford. Little is said about these, so his exact words are reported here:

'In the cemetery itself, we excavated the remains of two small rectangular Romano-British buildings, which are thought to have been rifled burial vaults.' They were both about 7ft 6in by 8ft 3in (or 2.29m by 2.51m), a similar size to those at Alton, and one was inside a four-sided ditch. There is no mention of masonry, and it is impossible to know what is meant by the terms used to describe them, 'ruins' and 'Roman foundation', which could indicate anything from worked stones to discoloured earth, but it may be that they were rectangular gullies like those at Alton (Lethbridge 1951, plans I and IV).

At Morningthorpe (Norfolk), in an inhumation and cremation cemetery (unpublished), there was a cremation surrounded by a square ditch (Miss B Green, pers comm). At Compton, Apple Down, West Sussex (Fig 10, site 35), an un-urned cremation was situated at the centre of a ploughed-down barrow with ring ditch, with two subsequent cremations and two inhumations over the ditch. Although circular the ditch is comparable in size to the rectangular structures at Alton (Youngs *et al* 1984, 242, Fig 8). A number of four-post structures are also reported at Compton, Apple Down and it may be that these are even more similar to the Alton rectangles (Youngs *et al* 1985, 202).

In Holland, cremations in an early Roman cemetery at Gaalse Heide, Schayk, North Brabant, were surrounded by circular and square ditches and also by post-holes set in a square (Modderman and Isings 1960-1, Afb 3 and 5). In the cemetery at Wijster, the cremation part of the cemetery was separated from the inhumations save for one or two isolated graves, but amongst the cremation pits there were twenty-two square or rectangular post-hole structures (van Es 1967, plan XI). The dimensions were fairly near those at Alton, varying from 0.90m by 1.20m to 1.10m by 2.00m and 1.30m by 1.40m. Like the cremations in the same area, they date from the late Roman period, mostly fourth to early fifth century.

At Wageningen, amongst a variety of other forms of cremation, there was one small rectangular pit, cremation 142, surrounded by a square ditch with sides just over 2m long. It was in an area of cremations in seventh century pots, and the ditch is said to have cut inhumation graves 137 and 143 (van Es 1964, 225). On the plans (pls LIII and LIV), however, it is shown cutting ?136 and 137 only. If it did, in fact, cut inhumation grave 143, the buckles with triangular plate in 143 would indicate a date for cremation 142 later than late-sixth to seventh century.

Most information on these structures comes from a recent excavation, where the combination of an area unusually well preserved and careful excavation methods produced a great deal of useful data. At Liebenau in north Germany (Cosack 1982), there were both inhumation and cremation burials, as well as extensive traces of the funeral pyres connected with individual cremations. In some of these there were four post-holes, arranged in a square or rectangle, and the fact that the posts themselves were burnt, but the surrounding fill of the post-holes was pure sand, shows that the posts were erected before the burning took place and that they were burnt *in situ*. It therefore seems that their function must have been to support the pyre. Similar traces were found in the cemetery not far away at Mahndorf (Grohne 1953).

As there was a four-post structure in the square gully of cremation 7 at Alton, it must be considered whether this explanation of function can be accepted here. The site had been disturbed and scraped by ploughing more or less to the rock chalk level, only an occasional inch or two surviving above that level. Nowhere did the chalk or any of the remaining layer above it show any sign of extensive burning. Burnt material was confined solely to urns or cremation pits. It was the same in the area above and around the square cremation 7, although here an additional inch or two survived above, as protection from ploughing had been afforded by the hedge which ran over the top. Neither were there traces of burning in the post-holes and slots which were filled with brown earth mixed with small chalk lumps, yet containing sherds from the cremation pot and remains of cremated objects. The structure, therefore, was erected for some other purpose, possibly as a tomb to contain the remains from the funeral pyre which had been burned elsewhere. The rectangle, cremation 45, was also devoid of traces of burning. There were no post-holes in the corner of the rectangular structure, but there were four stake-holes remaining within the rectangle.

Square structures in cremation cemeteries are therefore known in the late Roman and early Anglo-Saxon period both in this country and in Holland and Germany, and also as late as the seventh century in Holland. Without the combination of exceptionally good preservation and careful excavation, as at Liebenau, their function cannot be deduced with certainty.

Limits of the cemetery

There is no doubt that inhumations and cremations spread across the unexcavated garden in the middle of the site. The blank areas west and south of grave 33 suggest that the southern limit may have been reached in that area. In the southeast, blank areas near graves 20 and 21 suggest that the southeast limit had been reached there, and further evidence might be drawn from the fact that a line drawn from grave 20 to 21 also skirts cremations 30, 10 and 19 so

giving a straight edge to 55). There were also two houses west of grave 5 so that these also were close to the house, and unassociated with the house to the east.

The possibility suggested by the survey map drawn by Lethbridge (1951, 8) that the posts were erected before the burning took place and that they were burnt *in situ*. It therefore seems that their function must have been to support the pyre. Similar traces were found in the cemetery not far away at Mahndorf (Grohne 1953).

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Cemetery-plan groups

There was a certain amount of overlap between the three groups. The three were fairly close together, and the three spear graves were close together. Of these, the two groups 1 and 2 were close together and 6 (west-east) were close together and belong to a later period. The males in graves 34 and 35 were related to each other by a common ancestor and relationship for the woman in grave 49 (below 63). In grave 42, had two spear graves, 40 and 44. The other three were close together in the cemetery and were orientated

giving a straight edge to the cemetery boundary (Fig 55). There were also areas devoid of burials by the two houses west of grave 1 and northeast of grave 13, so that these also were probable limits. The occurrence of grave 5 at the front of one of the houses, however, and unassociated finds in the front garden of the house to the east indicate a probable spread northwards.

The possibility suggests itself that the line of the hedge, which appears on the six-inch Ordnance Survey map drawn between 1858 and 1873, may have some relevance. It happens that it passes through the middle of the square of cremation 7, parallel to two sides, and through cremation 14. Two of the three nearest west-east graves, 11 and 17, were at right angles to it, and two of the nearest cremations, 28 and 39, were equidistant from it.

It may be noted that there were no cremations in the northwest area, the most northerly cremation in the western sector being the disturbed bone and pot fragments called cremation 43, found in inhumation 40. It has been noted that, as graves in the west tended to be shallower (above 32), possibly more of the chalk surface had been lost there by ploughing. If so, this might have disposed of some cremations, but it is likely that there were no cremations in the northwest area because very few sherds were found in grave fills there (Fig 55), amounting only to a single sherd each of fabric 3 in graves 41, 38, 26 and 27. A line drawn from grave 40 to cremation 9 in the east is at an angle of about 81° from True North (Fig 55), an angle comparable to that of 76.5° specified at Orpington by three post-holes which gave a line dividing the cremation and non-cremation area, although in that cemetery the inhumations plus cremations were north of that line, and inhumations only south of it. Possible cemetery dividing lines at a similar angle have been noted also at Dover, Bergh Apton and possibly Holborough, Kent (Evison 1987, 152-168). Whether these are coincidences or of some significance may be elucidated by the publication of further well-recorded cemeteries.

Cemetery-plan grouping

There was a certain amount of grouping of male graves with weapons, for of the four sword graves, three were fairly close together, 1, 2 and 16, and three spear graves were also nearby, graves 4, 6 and 7. Of these, the two graves 2 (southwest-northeast) and 6 (west-east) were early and the south-north graves 1, 4, 7 and 16 were north of these two graves and belong to a later date, early seventh century. The males in graves 34 and 36 are said to be possibly related to each other because of dental similarities, and relationship for the same reason is possible between the woman in grave 14 and the male adult in grave 49 (below 63). In the western sector, a sword grave, 42, had two spear graves immediately beside it, 40 and 44. The other three spear graves, 34, 36 and 45, were close together in the northwest corner and these graves were orientated roughly southwest-northeast.

Well-furnished women's graves show some sign of clustering, as 41, 37, 47, 35 and 39 were near together. There were two brooch inhumations only in the southeast area, 12 and 14. Cremations were confined to the southeast area, one cremation being identified as male and two possibly male. There were no male inhumations southeast of graves 2-16. Four other brooch graves were found in the western sector, three of them near to each other, 35, 37 and 47. The two button brooch graves (35 and 37) were in close proximity to each other, but the saucer brooch graves were widely separated.

Judging from the positioning of graves there were no distinctive couplings of male and female graves, but if connected, the pairs 43-45 and 41-42 would be chronologically compatible. None of the sword graves were accompanied by the grave of a rich, brooch-wearing woman who might be regarded as the spouse. This is no doubt partially due to the small size of the area excavated. Grave 16, however, with its sword and gold buckle, was surrounded by cremations, any of which might represent the appropriate wife.

Children's inhumations were distributed between the male and female graves, except in the southwest area where there were no children's graves, and there are three pairs of child graves side by side: 28-29, 38-46 and 8-9.

So few cremations can be sexed or dated that no meaningful grouping can be distinguished. There is, however, some discernible connection between cremation and inhumation. Whether or not the rectangle C45 was a cremation, it was clearly related to graves 23 and 24 which were close to, and aligned with, it. The cremation 2 appears to have been carefully placed in relation to graves 8 and 9 as, in a similar pattern, were cremations 10 and 11 in relation to grave 14. This could be illusory, however, if the cremations were unmarked and the juxtaposition accidental. Alignment of three or more cremations was probably also accidental as seen in the groups 1-2-36, 11-12-13, 3-6-14, 5-7-22-24-23 and 38-18-34-29-41.

Graves classed according to grave goods (Table 15)

Amongst male graves, a sword occurred in four - 1, 2, 16 and 42 - and a large knife or seax was found in grave 4. Eight graves had no sword or seax but were furnished with a spear (6, 7, 34, 36, 40, 44, 45 and 49), two males had no weapons (26 and 30), and there were no possessions in one grave, 32 (Table 15). Amongst the women, seven possessed brooches (12, 14, 23, 35, 37, 43 and 47), five others were buried with some grave goods (11, 21, 33, 39 and 41), and three had none (13, 20 and 25). A possible pattern is suggested by the fact that, of the seven brooch-wearing women, five were aged between twenty-three and over forty-five, with one about sixteen and one over fifty. Of the five women with possessions but no brooches, three were over fifty

and two were teenagers. The pattern might therefore be connected with married status.

All the children who were between six and a half and fifteen years old were provided with possessions in the grave (9, 17, 19, 24, 27 and 29), but six younger children, from a new-born to a four-year-old, were buried without grave goods. One exception, an infant three years old (grave 46), had one bone bead at the neck, but this might be regarded as a practical garment fastener, or a good luck charm, rather than a personal possession.

The children's graves were close by other graves, with which they were presumably associated, for example, 46 and 38 by the female grave 37. The grave of an eighteen-year-old youth without grave goods (32) may have been related to the nearby male in grave 22 (only partially excavated), who presumably suffered death following sword cuts on his skull. As far as can be judged from the part of the cemetery plan recovered, the three unfurnished female graves 13, 20 and 25 were located on the outer limits of the burial area. This arrangement suggests a possible slave status for these women. Grave 25 belonged to a crippled old lady (above 29 and 60 below).

Orientation (Tables 16 and 17, Fig 9)

The plan (Fig 57) shows that the inhumation graves were orientated in a number of different directions. A total of fourteen (graves 3, 6, 8, 9, 10, 11, 12, 17, 22, 25, 30, 35, 37 and 41) was orientated in a west-east direction (Fig 57), between $c72^\circ$ and $c108^\circ$. Possibly to be included with the west-east graves, but in a slightly more northwest-southeast direction (113° - 120.5°), were five or six graves (13, 26, 28, 29 and 46), the sixth being uncertain as grave 38 was a small, infant-size grave without bone remains, so that it is not known at which end the head was placed, but on the analogy of nearby children's graves 28, 29 and 46 a similar northwest-southeast direction is most likely.

A comparable number of graves to those lying west-east were positioned in a south-north direction, for fourteen or fifteen graves were between 347° and 30° , the uncertainty of the fifteenth grave (18) being due to the fact that it was a small grave without bones. It should be noted that there was a considerable difference between the angles of the south-north graves in the western sector, which were between 10° and 30° , and those in the eastern sector,

Table 15. Alton Anglo-Saxon cemetery: graves classed by grave goods.

MALE			
Sword	Spear only	Weaponless	Findless
1 (adult)	6 (c24-27)	26 (16-19)	32 (c18)
2 (adult)	7 (c24-27)	30 (25-30)	
?sex 4 (adult)	34 (20)		
16 (c28)	36 (c35-40)		
42 (c30-35)	40 (old)		
	44 (45+)		
	45 (adult)		
	49 (adult)		
FEMALE			
Brooch	No brooch, furnished	Findless	
12 (50+)	11 (16-18)	13 (c20)	
14 (c23)	21 (50+)	20 (50+)	
23 (c35)	33 (50+)	25 (45+)	
35 (c30-35)	39 (50+)		
37 (c16)	41 (16-17)		
43 (45+)			
47 (c35)			
JUVENILE (up to 15)			
	Furnished	Findless	
	9 (F, 7)	8 (neonate)	
	17 (6½-7)	15 (2)	
	19 (F, 4)	18 (?infant)	
	24 (?M, c15)	28 (c18 months)	
	27 (F, c10)	32 (c4)	
	29 (7-8)	38 (?infant)	
	46 (?F, 3)		

Ages (in brackets) are in years unless otherwise indicated.

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45, 47 and 48). The u
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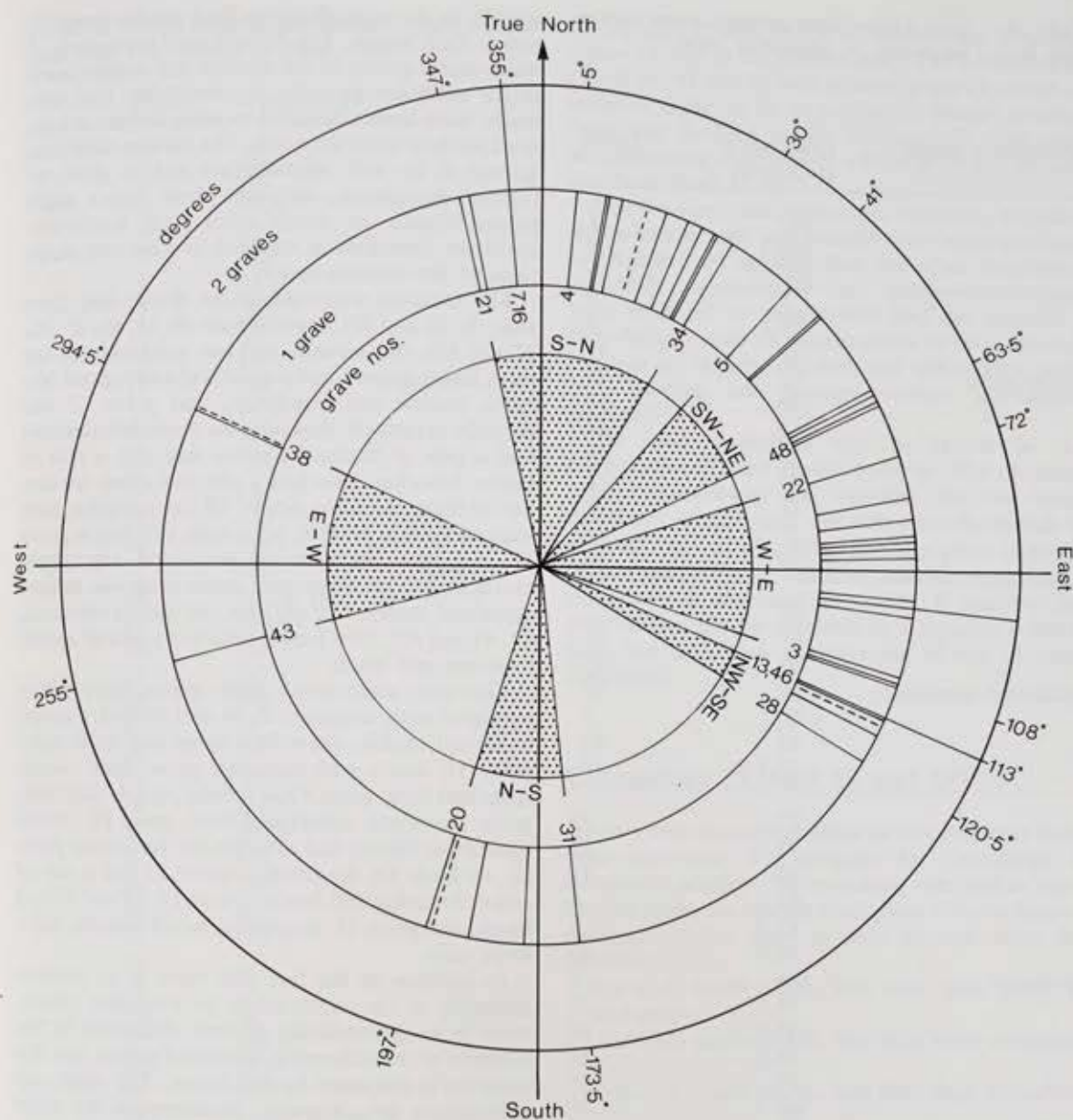


Fig 9. Alton Anglo-Saxon cemetery: grave orientation.

which were mainly between 347° and 9.5° . There was a group of five to seven deviants (five in the western sector), buried in a more southwest-northeast direction, between $c41^\circ$ and 63.5° (42, 44, 45, 47 and 48). The uncertainty about two in the eastern sector is due to the fact that they were discovered before the excavation, and their direction is approximate. These southwest-northeast graves could be related to either the south-north or the west-east group.

Completely at variance with the majority of graves, which were confined within the degrees of 347° – 120.5° , there were some in diametrically opposed directions. In four (or five) graves the head had been placed at the north end of a north-south grave, 173.5° – 197° (graves 15, 20, 27, 31 and poss-

ibly 18), and there were also two or three east-west graves between 255° and 294.5° (graves 14, 43 and possibly 38).

The only ancient features on the site which may have had an effect on orientation were the square and rectangular structures of cremations 7 and 45. There were no graves near to, or obviously aligned with, the cremation 7 square, but two west-east graves not far away lay at the same angle (graves 11 and 17). These were further away, however, than the two graves 12 and 14 at different angles, and also further away than the cluster of cremations (3, 4, 5, 6, 12, 13, 14, 15, 17, 19, 20, 22, 23 and 24). With regard to the rectangle of cremation 45, however, there were two south-north graves, 23 and 24, beside it on the same alignment. A little further away were graves 32

Table 16. Alton Anglo-Saxon cemetery: grave orientations from True North, in orientation order.

Orientation group	Orientation in degrees	Grave
south-north	347	21
	348.5	19
	355	7, 16
	c 5	4
	c 9.5	1
	10	40
	12	23
	?16	18
	19	24
	22.5	36
	25	32
	c 27	39
	27.5	33
	30	34
southwest-northeast	c 41	5
	47	44
	47.5	45
	61	47
	c 62	2
	63	42
	c 63.5	48
west-east	c 72	22
	78.5	12
	82	41
	84.5	6
	85.5	9
	86.5	30
	88	8
	94.5	17
	c 95.5	10
	95.5	11
	97	37
	106.5	35
	107.5	25
c 108	3	
northwest-southeast	113	13, 46
	113.5	26
	?114.5	38
	116	29
	120.5	28
north-south	173.5	31
	182	15
	190.5	27
	?196	18
	197	20
east-west	255	43
	294	14
	?294.5	38

and 33 in the same direction, and nearby grave 25 was at right angles. The difference of orientation of south-north graves in the western and eastern parts of the cemetery provides the possibility that they might have been orientated to some feature a hundred yards or so to the north. The various directions appear to be well intermingled and to show no definite segregation, although there was a slight preponderance of south-north and southwest-northeast directions as opposed to west-east directions in the western sector.

The fourteen west-east graves divide into three male (6, 22 and 30), seven female (9, 11, 12, 25, 35, 37 and 41), two juvenile and two unknown. Of the three males, grave 6 had a spear and knife, grave 30 a knife, buckle and fragments, and grave 22 was partially excavated. Amongst the seven females, two had a pair of button brooches and one a pair of saucer brooches, two had a pin and other objects, one of them including beads. Of the juveniles there were no finds in grave 8, but a knife and ring in grave 17. Amongst the possibly associated southwest-northeast group, there were more weapons, as four contained spears, two of them also with a sword (2, 42, 44 and 45). One female (47) had a pair of saucer brooches and beads.

The nine south-north male graves were better equipped with weapons: 7, 34 and 40 had a spear, knife and buckle; grave 36 a spear and knife only; grave 16 was a well-furnished grave with sword, spear and boss; grave 4 had a ?seax, spears and boss; grave 1 a sword, spears and boss; grave 24 (?male) aged about fifteen) had a buckle and knife; and grave 32, no finds. Of the females, grave 23 had a pair of saucer brooches and beads; graves 19, 33 and 39 had beads; and grave 21, containing an old woman, had a knife only.

In addition to the fact that there is no obvious grouping of the south-north or west-east graves, there is no immediately obvious difference in the contents of the differently orientated graves, but this question is discussed further below. The other odd orientations are, however, accompanied by other distinctive features. The only two definitely east-west graves were female: grave 14 was aged about twenty-three; and grave 43 over forty-five. Grave 14 was the only female with a pair of quoit brooches, and they were not accompanied by beads as were all the other brooches in the cemetery. Grave 43 was the only woman with a pair of small long brooches. As these two women were both wearing a type of brooch other than the saucer type native to the area, it may be that the reversed direction of burial reflected a local custom regarding people foreign to the neighbourhood.

The north-south graves were equally distinctive and belonged mainly to children. In grave 15 was an infant aged two, in grave 31 a child about four years old, both without grave furniture. Grave 18 was only 2ft 4in long, but no bones remained so that the orientation could not be definitely established but, judging from graves 15 and 31, it seems probable that 18 also was aligned north-south. Grave 27 was a north-south grave of a girl about ten, and was well

Table 17. Alton Anglo-Saxon cemetery: grave orientations from True North.

Grave

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furnished with beads, which buried in a north-south position, a woman of fifty or more years of age, with grave goods at the edge of the grave, is an unmarked grave deposited on top of it. The graves in a north-south position, as the

Table 17. *Alton Anglo-Saxon cemetery: grave orientations from True North, in grave order.*

Grave	Orientation
1	c9.5°
2	c62°
3	c108°
4	c5°
5	c41°
6	84.5°
7	355°
8	88°
9	85.5°
10	c95.5°
11	95.5°
12	78.5°
13	113°
14	294°
15	182°
16	355°
17	94.5°
18	16° or 196°
19	348.5°
20	197°
21	347°
22	c72°
23	12°
24	19°
25	107.5°
26	113.5°
27	190.5°
28	120.5°
29	116°
30	86.5°
31	173.5°
32	25°
33	27.5°
34	30°
35	106.5°
36	22.5°
37	97°
38	114.5° or 294.5°
39	c27°
40	10°
41	82°
42	63°
43	255°
44	47°
45	47.5°
46	113°
47	61°
48	c63.5°

furnished with beads, buckle, bucket, *etc.* The one adult buried in a north-south direction was in grave 20, a woman of fifty or over, who was buried without grave goods at the edge of the cemetery, apparently in an unmarked grave, as a cremation was later deposited on top of it.

The graves in a northwest-southeast direction had much in common, as three were together in the west:

26, 28 and 29, with 38 and 46 together not far away. Grave 13 was in the eastern part. The occupants of graves 28, 38 and 46 were infants, grave 29 a child of seven to eight, in 26 an adolescent sixteen to nineteen, and in 13 a female of about 20. The only accompanying objects were a knife in 26 and 29, and one bone bead in 46.

The preponderant directions, therefore, for these Anglo-Saxon men and women were west-east and south-north. It appears that the other directions, east-west, north-south and northwest-southeast were accorded to people who had not attained a fully-fledged male or female status in the community, that is, infants, children and adolescents, non-local women and women without possessions (?slaves).

No such distinction can be traced in the southwest-northeast graves, however. The direction southwest-northeast lies between the two main directions, south-north and west-east, the burials so aligned were all of adults, and the grave contents do not appear to be different from the contents of the graves in the main directions. It may be that they should not be regarded as a separate orientation, but simply as an extension of one of those directions.

Chronology (Tables 18 and 19)

As only two separate sections of this cemetery have been excavated, the evidence for chronology is necessarily scrappy. Nevertheless, even within these limited areas, the stratification gives valuable indications of relative dates as may be seen from the following:

Grave 4, south-north, was later than grave 3, west-east

Grave 16, south-north, was later than cremation 46

Grave 19, south-north, was later than cremation 27

Grave 23, south-north, was later than cremation 32

Grave 40, south-north, was later than cremation 43

Cremation 38 was later than grave 15, north-south

Cremation 31 was later than grave 20, north-south

Cremation 44 was later than grave 2, southwest-northeast

Cremation 24 was later than cremation 23

Cremation 45 was later than cremation 33.

There were also some graves with more than one Anglo-Saxon sherd in the fill, indicating a possible disturbed cremation: graves 6 west-east, 14 east-west and 18 north-south. Only one grave cut another grave: grave 4 (south-north) cut grave 3 (west-east). Four graves definitely cut a cremation, and each was a south-north grave: 16, 19, 23 and 40. Three cremations cut a grave: grave 15 (infant, two years, without grave goods, north-south), grave 20 (female, fifty or older, without grave goods, north-

south), grave 2 (male, with sword *etc.*, southwest-northeast). Two cremations cut a cremation: cremation 24 (female) overlaid cremation 23, and the rectangular gully of cremation 45 cut cremation 33 (female). The exact relationship of the square gully of cremation 7 and cremation 5 was not discernible, and it is no doubt coincidental that both of the square cremation gullies appeared to cut an earlier cremation near the northwest corner. The occurrence of earlier sherds in cremation 4 suggests a possible disturbed cremation. Where one burial disturbed another it is generally to be presumed that the first burial was unmarked, or that the marking had been lost because the intervening period was a long one.

When summed up, this presents a regular pattern: as a south-north grave cuts a west-east grave, it suggests that the first orientation used in the cemetery was west-east. In fact, neither grave nor cremation was clearly cut by a west-east grave, which suggests it may have been the earliest form of burial. It must be noted, however, that the odd sherd groups in graves 6 (west-east), 14 (east-west) and 18 (north-south or south-north), and single sherds in others, could be indications of disturbed cremations, although they have not been allocated numbers in the cremation series. Four south-north graves cutting cremations show that the south-north orientation was later than at least some of the cremations. In fact, the only graves which cut another burial were in a south-north orientation. In the case of the three cremations which were subsequent to a grave, two of the graves, 15 and 20, were in the unusual north-south direction, one an infant and one an old woman, both without grave finds, and the third, grave 2 was in a southwest-northeast direction. No cremation or grave, therefore, was stratigraphically subsequent to a south-north grave. One, and possibly both, of the square-gullied cremations were later than simple pot cremations. There were some cremations which probably had disturbed another cremation as they included sherds of a different fabric (cremation 4 and cremation 11), if it was not a matter of collection of material from a re-used pyre site which still retained fragments of an earlier cremation. The sequence was, therefore, west-east graves and north-south graves, pot cremations, square-gullied cremations, south-north graves, no doubt with overlaps.

Within the limitations of the excavated area it is possible to estimate the sequence of burials and period of use. There were no coin-dated graves to provide a firm basis for chronology, and the few Roman coins have little chronological value, for their dates of issue obviously have no direct relevance to the dates of the Germanic graves in which they were found.

There were a number of other Roman objects in the burials. Although no structural traces of the Roman period were met with in the area excavated, a few Roman period sherds and objects were found in the topsoil, so that use of the land at that time is likely to have been nearer this hill site than the

Roman settlement so far identified only in the valley. Apart from the abraded sherds found, one complete Roman pot was used for cremation 44. As this is said to have been found in the fill of grave 2, it must have been deposited later by a new Anglo-Saxon owner, and so cannot have been an isolated cremation of the Roman period. The other Roman objects in burials are all small articles, probably mainly keepsakes: a bronze theatre ticket C7.9; coins 11.3, 11.7, ?C7.12; bronze pin C24.4; twisted bronze ring 41.3; a bronze key 41.5; scabbard mount 27.4; terret 30.2; bronze discs 11.6 and 41.6; and fragment of glass bottle neck 14.4. In addition, there were a few Roman objects in the topsoil: coin U12, neck fragment of brass flask U13, lead weight U14, and iron dome-headed rivet U15.

It has quite reasonably been argued that objects manufactured during the Roman period could occur in Anglo-Saxon graves of any date, but it is, in fact, true that many tend to occur in the earliest graves and so indicate contact, friendly or otherwise, with the established Romano-British residents. At Alton they did not occur at all in the latest graves, which were orientated south-north. There was a Roman cremation pot (C44.1) subsequent to a southwest-northeast inhumation (2), but this grave belongs to the early group. A Roman glass bottle neck fragment (14.4) was in a grave with a pair of quoit brooches of the fifth century. Other Roman objects (11.3, 6 and 7, 27.4, 30.2 and 41.3, 5 and 6) were in graves which contained only simple objects like knife, buckle and beads which are not precisely datable but which would not have been out of place in the fifth century. The orientations of these graves were west-east (one east-west) and north-south, that is, amongst the earliest. The cremations with Roman objects, cremation 7 and cremation 24, belong to the late fifth or early sixth century.

It is fortunate that careful cleaning of a burnt bronze fragment (C2.2) has enabled it to be identified as part of a late Roman strapend, a type found in early fifth-century contexts on the Continent and in this country associated with other military belt equipment and weapons. The bronze rectangular tubular fragment found with it was probably also belt equipment of like date.

Brooches are useful items in establishing date, but even here precision is not possible and opinions differ. Some of the brooches are types which began in the fifth century but which are also found in contexts of the sixth century. The earlier date is confirmed for some by the other contents of the grave, and in this way graves 14 (east-west, with quoit brooches), 35 (west-east) and 37 (west-east, with button brooches) may be regarded as belonging to the fifth century, with grave 43 (east-west, with small long brooches) belonging to the fifth or early sixth. Cremation 1, with five spiral saucer brooches, belongs to the early fifth century. The saucer brooches from graves 12, 23 and 47 are allocated here to phase 1 or 2, and the square-headed brooch of cremation 31 belongs to the first half of the sixth century.

Table 18. Alton Anglo

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Phase 2	525—
Phase 3	600—
Phase 4	650—

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Table 18. Alton Anglo-Saxon cemetery: chronology of grave orientations, cremations and rectangular features.

	AD	W-E	N-S	E-W	SW-NE	S-N	Crem	Rect
Phase 1	425	↑	↑	↑	↑	↑	↑	
Phase 2	475	↓	↓					↑
Phase 3	525			↓	↓	↓	↓	↓
Phase 4	600					↑		
	650					↓		

In regard to the male graves, four of the shield bosses had broad flanges with disc-headed rivets, 49 was an accidental find with the orientation not noted, but the other three (2, 42 and 45) were orientated southwest-northeast. Grave 45 must belong to the fifth century and the other two, 2 and 42, to the late fifth - early sixth century. At Dover, shield bosses made a late appearance in the life of the cemetery and five out of six bosses with disc-headed rivets belonged to phase 3, AD 575-625. The other three shield bosses at Alton, 1.4a, 4.3a and 16.7a, have narrow flanges with knob-headed rivets, all were in south-north graves, and 16.7a has a tall cone shape which began in the seventh century. The shield bosses with knob-headed rivets at Dover all belonged to phase 4, 625-650, so that at Alton they are allocated to phase 4, here 600-650.

The most useful item for chronological purposes is the jewelled buckle in grave 16 which belongs to a Kentish series of the late sixth to seventh century. It shows wear and has been mended at least twice, and so gives an approximate, late date to this south-north grave. Other buckles with distinctive long plates backed by horn or bone were found in graves 2 and 41, and analogous buckle plates have not occurred later than the early sixth century. The small bronze buckle with long, narrow plate 34.3 goes back to the first half of the fifth century. Other buckles (in graves 7, 23, 27, 33, 47 and 49) have rectangular plates and unornamented tongues, showing none of the characteristics of later sixth-century buckles.

A considerable amount of pottery results from the use of cremation urns, but none of it may be dated later than the beginning of the sixth century, and the detectable outside limits of the cremation period are represented by the carinated bowls of fabric 4 which were mostly in use about AD 400, and the shouldered bowl C31.1 found with a square-headed brooch of the early sixth century.

Regarding inhumations, consideration must be given to the possibility that orientation is related to chronology. It has been noted above (41) that three orientations were reserved for individuals who were not fully-fledged members of the society: infants,

children, adolescents, non-local women and women without possessions (?slaves). One of these orientations was northwest-southeast, but there are so few finds in these five (?or six) graves, and those not distinctive, that no positive date can be assigned to them. The same applies to the four (?or five) north-south graves, with the exception of grave 27, which most likely belongs to phase 1. It is possible that the other four are of the same date, for 31 was close to 27, on the other side of 34 which belongs to phase 1. The position is not so clear cut with regard to graves 15 and 18 (?north-south), which were either side of the late south-north grave 16 and an unfurnished northwest-southeast grave, 13. Grave 20 had no relationship with other graves. Of the two definite east-west graves, 14 belongs to phase 1, and 43 to phase 1-2.

All the datable graves in a west-east direction appear to belong to phase 1, unless 6, 9 and 12 (with its seven-spiral saucer brooches allocated to phase 1 or 2) might possibly belong to phase 2. The graves in a southwest-northeast direction belong to phase 1 or 2, as do some of the graves in a south-north direction, with the exception of the four orientated between 355° and 10° which belong to phase 4, as grave 39, c27°, probably does. Graves 24, 23, 32 and 33 were the nearest graves to the rectangle C45 and were aligned with it, but whether they were earlier or later than C45 is not known.

Stratification does not add a great deal of fresh dating evidence, but where the features concerned can be dated by other means the chronology is confirmed by the stratification. Cremation 32 was contained in a large pot decorated with long slashed bosses and circular bosses, that is a *Buckelurne* of the fifth century, and was cut by grave 23 (south-north) which contained a pair of large saucer brooches. Grave 4 (south-north) with a late shield boss cut grave 3 which contained an early pedestal pot. Three other south-north graves cut a cremation, of which the pot of cremation 46 had a rosette stamp, cremation 43 was not distinctive and cremation 27 contained a miniature toilet set, so that all available indications are of the fifth century. Unfurnished cremation 38 cut inhumation 15, so suggesting an

early date for this north-south grave, and cremation 31 with its square-headed brooch does much the same for the north-south unfurnished grave 20, which it cuts. Cremation 44 (in the Roman pot) must have been deposited later than the southwest-northeast grave 2 of phase 1-2. The stamped pot of cremation 24 is a little later than the bossed pot cremation 23 below it. The square feature of cremation 45, and probably of cremation 7 also, cut an earlier cremation. There were no datable associations in the cremation 45 complex, and the indications of the date of cremation 7 are vague or loose in association, so that it could belong to phase 1 or 2. The buckle in the southwest post-hole (C7.6) might be an early sixth-century product, but the chip-carved scroll-work of the silver fragment (C7.13a) denotes the fifth century. Neither of the pot remains of cremation 5 or cremation 33 have datable features.

The earliest date in the cemetery is therefore to be allocated to cremation 2, the sherds C4.1b and sherds in the fill of grave 6 which must belong to the first third of the fifth century. Most of the material in the cemetery can be dated to between AD 425 and 525, and some of the south-north graves to the first half of the seventh century. There was therefore a gap without burials between 525 and 600, unless it proves possible to allocate the large saucer brooches to this period (as found in graves 12, 23 and 47). No useful conclusion regarding a break in continuity of occupation can be drawn however, as only part of the cemetery has been excavated and burials of this period may have been located in another part.

Table 19. Alton Anglo-Saxon cemetery: graves and cremations allocated to phases.

Phase	Grave numbers
1	3, 11, 14, 15, 20, 27, 30, 34, 35, 37, 41, 45, C1, C2, C4, C5, C23, C26, C32, C33, C46
1 or 2	2, 6, 7, 9, ?12, 19, 33, 36, 42, 43, 44, 49, C7, C12, C14, C16, C19, C20, C27, C45
2	23, 47 C24, C31, C44
3	-
4	1, 4, 16, 39, 40

Insufficient dating evidence for graves numbered 5, 8, 10, 13, 17, 18, 21, 22, 24, 25, 26, 28, 29, 31, 32, 38, 46, 48, C3, C6, C8, C9, C10, C13, C15, C18, C21, C22, C25, C28, C29, C30, C34, C35, C36, C37, C38, C39, C40, C41, C42 and C43.

Early Anglo-Saxon Alton

The place-name of Alton reflects its topographical position as it consists of two elements, OE *āwiel* 'a stream or the source of a stream' and *tūn* 'an enclosure, farmstead, estate or village' (Smith 1956a, 7; Smith 1956b, 188-99). The source of the Wey is situated in the valley, west-northwest of the site of the present settlement. The position of Alton was rather isolated in the early Saxon period (Fig 10, below 50), distanced as it was from the clusters of the nearest settlers in the Winchester area, from the Meonware and south Saxons in the south, and the upper Thames area and Surrey settlers in the north and east. The reason for light settlement in the early stages was probably that the area was heavily wooded, the wide forest of Andredesweald extending from Kent as far west as the river Privett (Carver 1973). Alton's position at the source of the Wey, a tributary of the Thames, suggests connections in the direction of that river. Lively traffic between this area and London in the fourth century is clear from the large percentage of pottery found in London which came from kilns sited between Neatham and Farnham (Graham and Millet 1980, 16), and such wares could have been cheaply transported along the River Wey. As to land communication, Alton is a short distance to the south of the long, prehistoric west-east trackway connecting the southwest of the country with the English Channel near Folkestone. A few miles to the east of Alton the south-north Roman road from Chichester to Silchester passed through Neatham (?*Vindomis*), where it was also crossed by a Roman road of west-east direction, no doubt connecting westwards with Winchester through Alton (Rivet 1970, 60-1, Fig 17; Millet 1975, 213-14, Fig 2; Biddle 1976, Fig 1) and eastwards from Neatham towards London.

As the ritual in the cemetery was about equally divided between inhumation and cremation (Alton is wrongly shown as a predominantly inhumation cemetery in OS 1966), comparisons may be made with the cemeteries in fairly close range at Andover and King's Worthy (Hampshire), and when evidence from these two sites is publicly available no doubt many points of contact will emerge. A small number of Roman objects mingled with Saxon possessions indicate some sort of contact with the Romano-British population, but there is no concentration of such objects in a single grave or a marked difference of ritual to suggest that any occupant was a Romano-Briton.

The intensive study of the late Roman cemetery at Lankhills just outside the Roman town of *Venta Belgarum* (Winchester) has brought to light six graves which, because of their grave ritual and contents, may be regarded as belonging to Saxon administrative officials or military officers and their relatives who were buried between about AD 390 and 410 (Clarke 1979, 389ff). It was thought that there was a gap of fifty years or more between the presence of the Anglo-Saxons in walled places like Winchester and Portchester and in the earliest

cemeteries in the surround-
1978, 328). Although o-
tery has been excavate-
brooch and pottery evid-
appreciable gap here,
obviously arrived at t-
tury, men and women
work and pottery from
ment between the moun-
together with the funer-
west-east burial. This
the first settlement of W-
Anglo-Saxon Chronicle
tianship with the Roma-
burial customs were Ge-
were almost exclusively
2, with its strapend of
belt, a unique occurre-
furnished inhumation b-
a bronze tubular termin-
and spear were found
cemetery at Itchen Ab-
occurs predominantly in
mouths of the Elbe and
in the west (Fig 10.5),
also found at Compton
brooches of similar date
Dorchester (Fig 10.2),
Worthy Park (Fig 10.3)
objects were found in
cones and spears at C-
at Silchester, and an a-
(Hampshire). There v-
century settlements th-
The cemetery at Alton
the fifth and early sixth
the pottery and meta-
styles.

If the saucer and butt-
as a guarantee of the
owners, it is interesting
date at Alton from at le-
time they are found in
methods of burial, the
west-east graves and th-
and southwest-northeast
were two women with
who were regarded as f-
with a reverse orient-
connection with the
other was wearing quon-
on the Thames and to
brooch style was in f-
upper Thames and Mu-
Essex.

These brooches repres-
Alton so far of the pe-
brooch style products, a-
been the Germanic peop-
the Thames at the invita-

cemeteries in the surrounding countryside (Biddle 1976, 328). Although only part of the Alton cemetery has been excavated, it has produced enough brooch and pottery evidence to show that there is no appreciable gap here, for the very earliest settlers obviously arrived at the beginning of the fifth century, men and women bringing with them metalwork and pottery from the Saxon area on the Continent between the mouths of the Elbe and Weser, together with the funeral customs of cremation and west-east burial. This was nearly a century before the first settlement of West Saxons mentioned by the Anglo-Saxon Chronicle, and, whatever their relationship with the Romano-British population, their burial customs were Germanic and their possessions were almost exclusively Germanic. Nor is cremation 2, with its strapend of a type normal on a military belt, a unique occurrence in the area, for a fully-furnished inhumation burial with a similar strapend, a bronze tubular terminal for a military belt, a sword and spear were found recently not far away in a cemetery at Itchen Abbas. This type of strapend occurs predominantly in the Saxon area between the mouths of the Elbe and Weser. Besides Itchen Abbas in the west (Fig 10.5), a late Roman strapend was also found at Compton (Fig 10.35) to the south, and buckles of similar date elsewhere in Hampshire at Droxford (Fig 10.2), Andover (Fig 10.34) and Worthy Park (Fig 10.38). Other early fifth-century objects were found in this area, including glass cones and spears at Guildown, a button brooch at Silchester, and an applied brooch at Portchester (Hampshire). There were, therefore, early fifth-century settlements throughout the whole area. The cemetery at Alton continued in use during the fifth and early sixth century without a break, the pottery and metalwork continuing in Saxon styles.

If the saucer and button brooches can be regarded as a guarantee of the Saxon nationality of their owners, it is interesting to note that they range in date at Alton from at least 425 to 525, during which time they are found in association with a variety of methods of burial, the earliest in a cremation and west-east graves and the later ones in south-north and southwest-northeast graves. Nevertheless there were two women with different types of brooches who were regarded as foreigners and given a burial with a reverse orientation. One of them had connection with the Cambridge area, and the other was wearing quoit brooches common to areas on the Thames and to the south where the quoit brooch style was in fashion: Kent, Sussex, the upper Thames and Mucking on the north bank in Essex.

These brooches represent the only definite trace at Alton so far of the people connected with quoit brooch style products, and they may, indeed, have been the Germanic people who were settled south of the Thames at the invitation of the Romano-Britons

in the first place. The length of this period of controlled settlement cannot be calculated, however, and the burial customs were from the beginning purely Germanic. Also, the forms, techniques and designs of the metalwork are most closely connected with northern France, and the quoit brooch style is found almost exclusively in this country in Germanic graves, and not at all in 'the Romanized towns, villas and villages of the Kentish countryside' (Myres 1986, 113; Evison 1965, 46-78; Evison 1968). Traces of Romano-Britons therefore remain elusive.

A square-headed brooch bears witness to a connection with Kent in the early sixth century, and a Kentish buckle was deposited with a swordsman of the early seventh century. This buckle, in grave 16, belongs to a group of buckles found in sword graves, and the other four, which are in the category of the largest and most opulent of the buckle type, were all in sword graves of great importance. The well-furnished grave at Taplow is generally regarded as a princely grave; the extra large Crundale buckle was probably found with a decorated sword; Sarre grave 68 contained a sword, shield boss, bucket, knife, tags, studs, and comb as well as the buckle; and the Wickhambreux grave was even more luxuriously equipped with bronze bowl, sword with jewelled sword bead and a blue glass claw-beaker. One other princely grave, although robbed, is often compared with Taplow and the ship burial at Sutton Hoo - the Broomfield grave in Essex - which contained the shield-shaped tongue base from a buckle of this type. When compared with the tongue bases of the rest of this series of buckles, it can be realised that, not only is it the largest of all, but its garnet work, along with the shield on the Wickhambreux buckle, shows the most accomplished technique. The man who possessed the comparable Alton buckle, therefore, must have been the leading man in the district in the early seventh century. The custom of wearing a fine buckle on a military belt with significance of rank was continued after the Roman period. The early seventh century is the time when Aethelberht of Kent was overlord in the country, and the presence of a splendid Kentish buckle in three princely graves outside of Kent, one in Essex, one in Buckinghamshire and one in Hampshire, gives rise to the proposition that these three were men who held authority in these three counties under Aethelberht, and who wore the Kentish buckle as the symbol of that power. Such significance would have been a good reason for the repeated mending the Alton buckle had undergone.

Until more of the cemetery is excavated, and the study of saucer brooches finalised, no definite significance can be attached to the apparent hiatus in the use of the cemetery between the early sixth and the early seventh century, but, if substantiated, it would correspond to the effect to be expected from the defeat of the Germanic settlers at the battle of Mons Badonicus.

Table 20. Alton Anglo-Saxon cemetery: grave contents. Continued on facing page.

Inhumation Grave Number		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Weapons	Sword or seax		X	X	X			X	X								X					
	Spearhead		X	X	X			X	X								X					
	Ferrule		X	X	X													X				
	Shield		X	X	X													X				
Jewellery	Small long brooch												X									
	Saucer brooch												X									
	Button brooch												X									
	Disc brooch												X									
	Quoit brooch												X									
	Pin										X		X									
	Bead			X									X								X	
	Ag buckle																	X				
	Ae buckle								X													
	Ae and Fe buckle											X						X				
	Fe buckle				X													X				
Belt or strap-mount		X															X					
Personal equipment	Purse-mount										X											
	Spindle-whorl										X											
	Knife		X		X		X	X		X		X	X		X		X	X		X		
	Fe sharpener												X									
	Key												X									
	Tweezers			X																		
	Toilet Set																					
	Playing Piece							X														
Containers	Bucket			X																		
	Pot				X																	
	Wooden box														X							
	Wooden cup																	X				
Miscellaneous	Roman Object											X			X							
	Ae											X	X									
	Fe									X		X	X				X	X				
	Misc			X																		
Fill	Misc											X	X		X		X		X	X	X	X
	Sherd						X					X	X		X		X		X	X	X	X

Cremation number		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Pot	Pot		X																			
	Secondary sherds		X	X	X	X	X	X		X		X	X		X	X	X	X		X	X	
Jewellery	Square-headed brooch																					
	Saucer brooch		X																			
	Pin		X																			
	Bead		X																			
	Ae buckle								X			X			X							
	Belt mount			X					X													
Personal equipment	Ae needle																					
	Tweezers									X												
	Toilet set																					
	Miniature comb																					
Miscellaneous	Roman object																					
	Ag											X										
	Ae											X					X					
	Fe											X					X					
	Misc		X			X						X					X			X		

Early Anglo-Saxon sites in the Alton area, by Valerie Cooper

References quoted are the report on the original discovery and any reports on subsequent discoveries, followed by a selection of mentions in recent comprehensive surveys.

Inhumation cemeteries

1. Bedhampton (Bevis' Grave), Hants SU 692064 (secondary in barrow) Bingley 1817, 64; Meaney 1964, 94; Webster 1976, 161.
2. Droxford (Brockbridge), Hants SU 612184 Dale 1901-03; Dale 1906; Meaney 1964, 97; Aldsworth 1978.
3. Fareham (Wallington, Clapper Hill), Hants SU 590075 Williams-Freeman 1937, 296; Meaney 1964, 97.
4. Guildford (Mareschal Road), Surrey SU 992492 Whimster 1931, 190; Lowther 1931, 4; Meaney 1964, 241; Myres 1977 I 109.
5. Itchen Abbas, Hants SU 537329 Youngs *et al* 1985, 180-1.
6. Meonstoke, Hants SU 6119 Meaney 1964, 98; Devenish and Champion 1977; Youngs *et al* 1985, 181.
7. Micheldever (Weston Farm), Hants SU 505396 Hughes 1846; Gunner 1849; Meaney 1964, 98.
8. Portsdown, Portsmouth, Hants SU 64870656 (secondary in barrow) Meaney 1964, 99; Corney *et al* 1967, 33-41.
9. Preston Candover, Hants SU 604403 (secondary in barrow) Shore 1894, 286; Hawkes 1940; Meaney 1964, 99.
10. Snell's Corner, Horndean, Hants SU 707153 Knocker 1956; Meaney 1964, 100; Myres 1977 I 91.
11. War Down, Buriton, Hants SU 72631988 (secondary in barrow) Cunliffe 1975.
12. Winchester (Lower Brook Street), Hants Biddle 1975b, 303-6.
13. Winchester (St Giles Hill), Hants SU 494293 Hughes 1846; Meaney 1964, 101.
14. Winchester (Winnall Industrial Estate), Hants SU 494301 Meaney 1964, 102; Meaney and Hawkes 1970; Myres 1977 I 91.
15. Winchester (Winnall), Hants SU 491301 Meaney 1964, 102; Meaney and Hawkes 1970, 4-6.

Inhumations

16. Alresford, Tichbourne, Hants SU 589313 *The Archaeological News Letter* 1.3 (1948) 12; Meaney 1964, 94.
17. Broughton Down, Bossington, Hants SU 307316

18. Godwin 1898, 51; Meaney 1964, 95.
18. Brown Candover, Hants SU 580390 Meaney 1964, 95.
19. Chilbolton (Testcombe gravel pit), Hants SU 384390 *Annual Report of the Salisbury, South Wilts and Blackmore Museum for 1931-1932*, 12; Meaney 1964, 97.
20. Farley Chamberlayne (Farley Down), Hants SU 403286 Meaney 1964, 97-9.
21. West Ham, Basingstoke, Hants SU 624519 Smith 1907-09; Meaney 1964, 98.
22. East Meon, Hants SU 669262 Hooley 1937; Crawford 1937; Meaney 1964, 98.
23. Oliver's Battery, Compton, Hants SU 459279 Andrew and Smith 1931; Meaney 1964, 98-9.
24. Preshaw, Exton, Hants SU 580240 Kendrick and Hawkes 1937; Meaney 1964, 99.
25. Reading (Workhouse site), Berks SU 698737 Smith 1906, 246; Meaney 1964, 50.
26. Singleton, near the Trundle, West Sussex SU 88101113 Aldsworth 1976; Welch 1983 ii, 502.
27. Sutton Scotney (Chalk Dell), Hants SU 462391 Meaney 1964, 101.

Cremation cemeteries

28. Fareham (North Turnpike), Hants SU 575065 Meaney 1964, 97; Hawkes 1968; Myres 1977 I 91.
29. West Stoke, Bow Hill, West Sussex SU 81960983 (primary in barrow) Smith 1870, 59-62; Meaney 1964, 255; Welch 1983 ii, 504-5.
30. Whitmoor Common, Worplesdon, Surrey SU 991537 (primary in barrow) Lane Fox 1877, 117; Meaney 1964, 245.

Cremations

31. Pagham, West Sussex SZ 883974 Collins 1954-57; Meaney 1964, 253; Myres 1977 I 110; Welch 1983 ii, 494.
32. Reading (Southcote Lane), Berks SU 696720 Colyer 1924; Meaney 1964, 50; Myres 1977 I 87.

Mixed cemeteries

33. Alton (Mount Pleasant), Hants SU 718388 Myres 1977 I 91; present report.
34. Andover (Portway Industrial Estate), Hants SU 343462 Webster 1975, 222; Cook and Dacre 1985.
35. Compton (Apple Down), West Sussex SU 794151 Aldsworth 1981; Welch 1983 ii, 507; Youngs *et al* 1984, 242-4; Youngs *et al* 1985, 202.
36. Guilddown, Guildford, Surrey SU 988488 Lowther 1931, 1933; Meaney 1964, 241-2; Myres 1977 I 109.



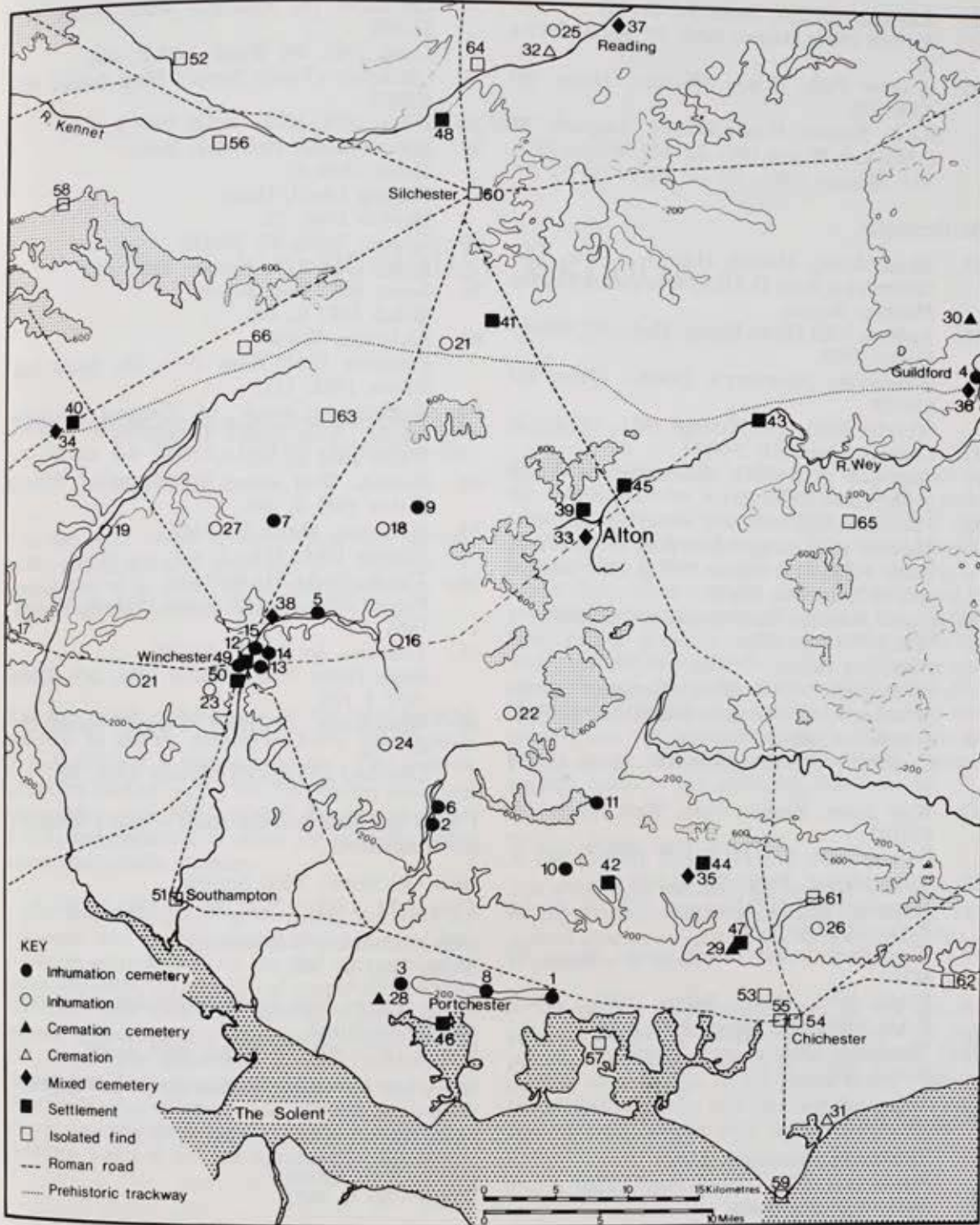


Fig 10. Early Anglo-Saxon sites in the Alton area.

37. Reading (Earley), Berks SU 741739
Stevens 1894; Meaney 1964, 50; Myres 1977 1 87.
38. Worthy Park, Kings Worthy, Hants SU 50003275
South Eastern Naturalist and Antiquary 40 (1945) xxx; Wilson 1962-63, 307; Wilson 1964, 233; Meaney 1964, 102-3; Myres 1977 1 91.

Settlements

39. Alton (Amery House), Hants
Information from D Allen, Hampshire County Museum Service.
40. Andover (Old Down Farm), Hants SU 356465
Davies 1979.
41. Basingstoke (Cowdery's Down), Hants SU 656533
Webster 1980, 220; Youngs 1981, 168.
42. Chalton, Hants SU 734144
Addyman *et al* 1972; Addyman and Leigh 1973; Rahtz 1976, 415.
43. Farnham (Firgrove Pit), Surrey SU 842466
Huband 1925, 123; Oakley *et al* 1939, 255-9; Rahtz 1976, 419; Myres 1977 1 109; Graham and Millett 1980, Fig 2.
44. North Marden, West Sussex SU 801157
Welch 1983 ii, 507.
45. Neatham, Hants
Information from D Allen, Hampshire County Museum Service; Graham and Millett 1980, 8.
46. Portchester, Hants
Cunliffe 1976; Rahtz 1976, 435; Myres 1977 1 91.
47. West Stoke, Kingley Vale, West Sussex SU 822100
Curwen 1934, 212-14; Welch 1983 ii, 503-4.
48. Ufton Nervet, Berks SU 617690
Manning 1960, 117; Manning 1973-74, 49-54; Rahtz 1976, 445.
49. Winchester (Lower Brook Street), Hants SU 4830
Biddle 1972, 101-2; Biddle 1975b, 303-5; Rahtz 1976, 449; Myres 1977 1 91.
50. Winchester (South Gate), Hants
Biddle 1975a, 117.
51. Bitterne (Clausentum), Hants
Myres 1977 1 91, 161; 2 Fig 73.2367.
52. Boxford Farm, Berks
Peake 1934-37.
53. Chichester (The Broyle), West Sussex cSU 845066
Antiq J 4 (1924) 49-50; Welch 1983 ii, 501.
54. Chichester (St Pancras), West Sussex SU 865048
Leeds 1945, 94; Welch 1983 ii, 499.
55. Chichester (Tower Street), West Sussex SU 858050
Down 1974, 50-1; Welch 1983 ii, 500.
56. Enborne Gate, Newbury, Berks
Hardy 1934-37.
57. Hayling Island, Hants
Hawkes 1968, 55.
58. Inkpen, Berks SU 349620
Peake 1931, 129; Meaney 1964, 48.
59. Selsey Bill, West Sussex
Welch 1983 ii, 496
60. Silchester, Hants
Passmore 1934; Boon 1959, 83; Avent and Evison 1982, 115.
61. Singleton (Church of England Primary School), West Sussex SU 879133
Welch 1983 ii, 502-3.
62. Slindon, West Sussex SU 973076
Welch 1983 ii, 493.
63. Steventon, Hants SU 5447
Meaney 1964, 101.
64. Theale, Berks SU 645710
Piggott 1934-37, 149; Myres 1938-46; Meaney 1964, 52.
65. Thursley, Surrey SU 902395
Hope-Taylor 1950; Meaney 1964, 245; Myres 1977 1 109.
66. Whitchurch (Twinley Farm), Hants SU 477518
Crawford 1933, 296; Meaney 1964, 101.

Finds not marked on map - exact location not recorded

- Near Chichester, West Sussex
Antiq J 12 (1932) 173-4; Welch 1983 ii, 501-2.
- Near Chichester, West Sussex
Welch 1983 ii, 502.
- Selsey (on the coast in the neighbourhood of Bognor), West Sussex
Willett 1877, 309-12; Welch 1983 ii, 495.
- Selsey (on the shore between Selsey and Bognor), West Sussex
Smith 1913-14; Welch 1983 ii, 495.
- Selsey, West Sussex
Welch 1983 ii, 496.
- South Downs, Sussex
Welch 1983 ii, 505.

Isolated finds

51. Bitterne (Clausentum), Hants
Myres 1977 1 91, 161; 2 Fig 73.2367.
52. Boxford Farm, Berks
Peake 1934-37.
53. Chichester (The Broyle), West Sussex cSU 845066
Antiq J 4 (1924) 49-50; Welch 1983 ii, 501.

The scientific examination by Susan La Niece, search Laboratory

This fine silver buckle is made of silver, gilding and gold sheet carried out of as many of the possible without causing

Silver

The four main components analysed by energy dispersive X-ray (Cowell 1977) of a polished surface are marked on Fig. 21. The cross-sections were not analysed, and polishing of the case unacceptable damage

The trace amounts of copper are consistent and do not suggest divergent sources of silver. However, the quantity of the silver does vary significantly, and this indicates that the metal is not pure silver, but is in fact, brass. The differences suggest that the loop and the tongue are separate batches of silver. The tongue and the main section (analyses 2 and 4) are not

Table 21. Alton Anglo-Saxon composition of buckle 16.2.

Analysis point	Silver
1. Loop	97.0
2. Tongue	92.5
3. Back plate	95.8
4. Main piece	93.4

Chapter 4

Specialist Reports

The scientific examination of buckle 16.2, by Susan La Niece, British Museum Re- search Laboratory

This fine silver buckle is embellished with garnets, niello, gilding and gold sheet and wire. Analysis was carried out of as many of the components as was possible without causing damage.

Silver

The four main components of the buckle were analysed by energy dispersive X-ray fluorescence (Cowell 1977) of a polished surface. The analysis points are marked on Fig 11. The domed studs and cross-straps were not analysed because they are gilded, and polishing of areas for analysis would cause unacceptable damage.

The trace amounts of gold, nickel and lead are consistent and do not suggest the use of widely divergent sources of silver for the various components. However, the quantity of copper alloyed with the silver does vary significantly. Where zinc is present it indicates that the copper added was, in fact, brass. The differences in alloy composition suggest that the loop and back-plate were made from separate batches of silver. The composition of the tongue and the main section of the buckle plate (analyses 2 and 4) are not significantly different.

Table 21. Alton Anglo-Saxon cemetery: analysis for composition of buckle 16.2; figures are percentages.

Analysis point	Silver	Copper	Gold	Nickel	Zinc	Lead
1 Loop	97.0	2.0	0.6	0.2	<.05	0.2
2 Tongue	92.5	5.5	1.0	0.3	0.5	0.2
3 Back plate	95.8	2.5	0.8	0.3	0.3	0.1
4 Main piece	93.4	4.6	1.0	0.3	0.6	0.2

Niello

The niello inlay on the buckle loop was analysed by the Debye-Scherrer X-ray diffraction powder technique (Azaroff and Buerger 1958). It is silver sulphide (Ag_2S). Although copper-silver sulphide niello is found from at least as early as the sixth century (La Niece 1983), silver sulphide continued to be used in jewellery such as the great gold buckle from Sutton Hoo (British Museum registration M&L 1939.10-10.1), and the fine seventh-century gold, silver and garnet brooch from Faversham (M&L 1097-70). The silver sulphide was softened by heating and pressed into the prepared channels. There was no keying in the channels to assist adhesion, consequently much of the niello has fallen out.

White inlay and garnets

The white inlay was analysed by XRD and found to be the aragonite form of calcium carbonate. The layered structure visible in the inlay indicates that it is probably of shell.

The garnets are almandines and fit well into the general picture of Anglo-Saxon garnets of this period, as determined by X-ray fluorescence. Comparison of the shape of the garnet inlays with the shape of the cloisons indicates that the garnets were not originally shaped with this design in mind.

Gold and gilding

The gilding on the buckle, studs and the cross-straps was applied as an amalgam with mercury; the mer-

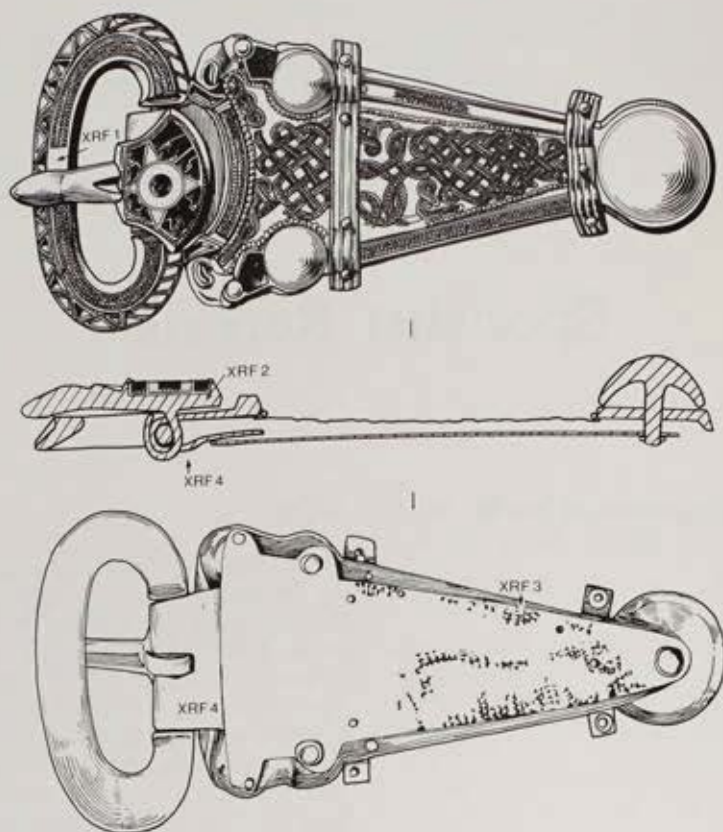


Fig 11. Alton Anglo-Saxon cemetery: buckle 16.2, showing analysis points XRF1 – XRF4. Scale 1:1.

cury is clearly detectable by XRF. The gilding on the cross-straps shows cracking lines where the straps are bent, confirming that they were gilded before they were applied to the buckle.

The thin gold *repoussé* sheet was worked from the front and beaded wires soldered to it. The false plaiting was made by taking pairs of block-twisted gold wires (Oddy 1977) and twisting them into a single rope. The ropes were soldered on to a gold sheet, side by side, with their direction of twist alternating to give the illusion of plaiting.

It was not possible to analyse the gold-work *in situ* because the geometry of the filigree work did not allow an uninterrupted path for accurate analysis, and the surface of the 'plaiting' proved to be too uneven to give consistent results. However, the variation in colour of the gold suggests that the alloy composition varies from component to component.

Examination and analysis of the glass beads by Paul Wilthew, Ancient Monuments Laboratory

Introduction

The glass beads (AM852749) from the Anglo-Saxon cemetery site at Alton were examined and a repre-

sentative selection was analysed elementally using energy dispersive X-ray fluorescence (XRF). The colour, opacity and porosity of the beads were considered as well as their chemical composition, and the probable colourants, decolourants and opacifiers present were identified. The results are compared to those obtained previously for glass beads from other sites of similar date.

Many of the beads found were made from materials other than glass, particularly amber, but only the glass beads were examined in detail and the term 'bead' below implies 'glass bead'.

Apart from those which showed signs of having been burnt, most of the beads were analysed, although, where a large number of similar beads came from a single grave, a random selection was made.

Method

Colour, opacity and porosity

Two methods of describing the colour of the analysed beads were used. Firstly, each monochrome bead and each field of the polychrome beads was assigned to a general colour category (brown, yellow, clear, etc). Secondly, the colour of most of the beads was described more objectively in terms of a Munsell number. However, Munsell numbers could not be

possibly assigned to the clear beads. The hue (H) and chroma (C: intensity of hue) were affected by the tints of the beads. Nevertheless, the Munsell numbers of beads from a large selection of beads from the Alton site were typical of the group.

Both the general colour categories and the numbers of the analysed beads are given together with comments on the results. The latter are based on visual observations using low power optical microscopy.

Elemental Analysis

Elemental analysis was carried out using energy dispersive X-ray fluorescence spectrometry. The area analysed was not always possible to define because of the polychrome beads separate from the glass beads. It was possible, because the beads were completely non-porous, to make a small area analysis for low atomic number elements such as sodium, magnesium and calcium. The results for these elements were not reliable because of the lack of suitable standards. The results for lead, glass could not, therefore, be used.

The elements detected were sodium, iron, copper, zinc, manganese, cobalt and arsenic. Cobalt may have been present in the beads because of the detection limit of the method. It would be expected in the beads if it was not positively identified. Nickel and arsenic, which are normally found in beads from other sites, were not detected in any of the beads.

The K α peak heights were measured, except for lead which was not analysed. The results were used to enable comparisons to be made between the peak height and the silicon content. Silicon would be expected to be a relatively constant level in the beads. This assumption is not valid for high levels of lead. The ratios of lead to silicon were calculated.

Results and Discussion

The colour of a glass bead is determined by the presence of certain metal ions. The colour of the matrix is determined by the size of the particles in the matrix.

sensibly assigned to the clear, the black or, in some cases, the white beads. The Munsell number has three components, the hue (H), the value (V: lightness or darkness - low values indicate dark) and the chroma (C: intensity of hue - high values indicate high intensity). Some of the beads were not uniform in colour and the apparent colour of the translucent beads was affected by the thickness of the glass. Nevertheless, the Munsell number should give a reasonable indication of the colour. Where only a selection of beads from a large number of similar beads was analysed, the Munsell numbers given were typical of the group.

Both the general colour categories and the Munsell numbers of the analysed beads are given in Table 22 together with comments on the opacity of the beads. The latter are based on visual examination of the beads using low power optical microscopy (x15-x45).

Elemental Analysis

Elemental analysis was carried out using an energy dispersive X-ray fluorescence system with an evacuated chamber. The area analysed was quite large and it was not always possible to analyse individual fields of polychrome beads separately. No sample preparation was possible, because the technique was required to be completely non-destructive. No attempt was made to analyse for low atomic number elements such as sodium, magnesium and aluminium, as results for these elements would have been unreliable because of the lack of sample preparation. The bulk glass could not, therefore, be categorised.

The elements detected were silicon, titanium, manganese, iron, copper, zinc, lead, tin and antimony. Cobalt may have been present at levels below the detection limit of the method used in some of the beads (it would be expected in the blue beads), but it was not positively identified in the beads analysed. Nickel and arsenic, which have been found occasionally in beads from other sites of this period, were not detected in any of the beads analysed.

The $K\alpha$ peak heights were recorded for each element, except for lead when the $L\alpha$ peak height was used. The results were only semi-quantitative, but to enable comparisons to be made, the ratio of the peak height and the silicon $K\alpha$ peak height was obtained, as silicon would be expected to be present at a relatively constant level in each bead. This assumption is not valid for high lead glasses, but in practice only the yellow beads contained particularly high levels of lead. The ratios are given in Table 23.

Results and Discussion

The colour of a glass bead is affected both by the presence of certain metal ions in solution and by opaque particles in the matrix glass. Among the

elements which can act as colourants in the form of ions are manganese, iron, cobalt and copper (in the oxidised state as cupric ions). Manganese and antimony can also act as decolourisers. The opaque particles which can be found in beads from Anglo-Saxon sites include copper, cuprous oxide, lead-tin oxide, tin oxide and lead and calcium antimonates. A more detailed discussion of the colourants found in Anglo-Saxon beads is given in Bayley (forthcoming).

The opacity of the beads is affected by several factors including the presence of opaque particles and bubbles, the thickness of the bead and the intensity of colour. All, or almost all, the beads examined did contain bubbles but not at a sufficient density to opacify the beads and therefore the presence of bubbles is not commented on below.

The colourants and opacifiers used are discussed for each colour category below.

Green. Both iron and copper, under appropriate conditions, can colour glass green, and two examples of the use of each were found. The iron-coloured beads were translucent and contained no opaque particles and, at most, only traces of lead. They were clearly distinguishable, both analytically and visually, from the green beads containing copper. The latter contained relatively high lead levels and, although they were just translucent, occasional white (almost certainly tin oxide) particles.

Red. All the red beads were coloured by the presence of opaque copper or cuprous oxide particles. The density of the particles was sufficient to make the beads completely opaque.

Yellow. All the yellow beads contained high levels of lead and tin and their opacity and colour was due to the presence of opaque lead-tin oxide particles.

White. The colourant in the white beads was tin oxide. Although lead-tin oxide is unstable at high temperatures and forms tin oxide, the white and yellow were compositionally distinct. As has been found elsewhere (Bayley and Wilthew 1986), the white beads generally contained higher levels of tin and lower levels of lead than the yellow beads (see Fig 12).

Blue. Glass can be coloured blue either by cobalt, which produces an intense colour even when present at very low concentrations, or by copper in the oxidised state which has to be present at a relatively high concentration and gives a more turquoise hue. As none of the blue beads analysed in the present work contained significant levels of copper, they were almost certainly all cobalt coloured. There was no indication that any of the blue beads had been deliberately opacified.

Black. The colour of the black beads was due to the effect of high concentrations of iron (see Fig 13).

Table 22. Alton Anglo-Saxon cemetery: appearance of the analysed beads.
 *=polychrome beads

Analysis No	Find No	Colour	Munsell Number			Opacity
			H	V	C	
1	9.1i	blue	5PB	3	4	Translucent
2	9.1i	blue	5PB	3	4	Translucent
3	9.1i	blue	7.5PB	3	4	Translucent
4	9.1i	black	-	-	-	Opaque
5	9.1g	black	-	-	-	Opaque
6	9.1g	black	-	-	-	Opaque
7	9.1a	red	7.5R	5	8	Opaque
8	9.1b	yellow	5Y	7	6	Opaque
9	9.1b	yellow	5Y	8.5	10	Opaque
10	9.1e	green	5G	3	4	Just translucent
11	9.1j	blue	7.5PB	3	8	Translucent
12	9.1f	white	10GY	9	1	Opaque
13	9.1i	blue	7.5PB	3	8	Translucent
14	9.1g	black	-	-	-	Opaque
15	9.1k	black	-	-	-	Opaque
16	9.1c	green	10Y	6	8	Translucent
17	9.1b	yellow	5Y	7	10	Opaque
18	9.1l	green	5G	3	4	Just translucent
19	9.1a	red	5R	4	6	Opaque
20	9.1d	black	-	-	-	Opaque
21	9.1h	blue	5PB	5	8	Translucent
22	12.4ic	black	-	-	-	Opaque
23	12.4ic	black	-	-	-	Opaque
24	12.4id	blue	5PB	3	4	Translucent
25	12.4ie	clear	-	-	-	Transparent
26	19.1iib	yellow	5Y	8	6	Opaque
27	19.1iib	yellow	10Y	8	10	Opaque
28	19.1iib	yellow	7.5Y	8.5	10	Opaque
29	19.1iib	yellow	5Y	8	6	Opaque
30	19.1iib	yellow	7.5Y	8.5	10	Opaque
31	19.1iib	yellow	7.5Y	8.5	10	Opaque
32*	19.1i	white	-	-	-	Opaque
		blue	7.5B	7	4	Translucent
33*	23.4if	red	7.5R	4	6	Opaque
		black	-	-	-	Opaque
34*	23.4if	red	7.5R	4	6	Opaque
		black	-	-	-	Opaque
35*	23.4ie	blue	7.5PB	3	10	Translucent
		white	-	-	-	Opaque
		red	7.5R	5	8	Opaque
36	27.1c	blue	5PB	3	8	Translucent
37	33.8b	blue	7.5PB	3	10	Translucent
38	35.3d	blue	5PB	3	4	Translucent
39	35.3d	blue	7.5PB	2.5	6	Translucent
40	37.4e	brown	5RP	2.5	2	Translucent
41	37.4e	brown	5RP	2.5	2	Translucent
42	37.4e	brown	5RP	2.5	2	Translucent
43	37.4h	blue	7.5PB	3	10	Translucent
44	37.4h	blue	7.5PB	3	10	Translucent
45	37.4h	blue	7.5PB	3	10	Translucent
46	37.4e	brown	5RP	2.5	2	Translucent
47*	37.4i	white	2.5B	9	2	Opaque
		blue	7.5PB	3	10	Translucent
48	37.4g	blue	5PB	4	10	Translucent
49	37.4h	blue	7.5PB	3	8	Translucent
50	37.4d	clear	-	-	-	Transparent
51	37.4f	brown	10P	2.5	1	Translucent

Table 22. Continued.

Analysis No	Find No
52*	39.1m
53*	39.1j
54*	39.1i
55*	39.1n
56	39.1f
57	39.1d
58	39.1e
59	39.1c
60	39.1l
61	39.1i
62*	39.1g
63*	39.1h
64*	39.1k
65*	39.1o
66	41.2f
67	41.2d
68	41.2d
69	41.2g
70	41.2f
71	41.2d
72	41.2e
73	47.3e
74	47.3e
75	47.3e
76	47.3g
77	47.3g
78	47.3g
79	47.3g
80	47.3f
81	47.3e
82	47.3e
83	47.3g
84	47.3e
85	47.3f
86	47.3e

Table 22. *Continued.*

Analysis No	Find No	Colour	Munsell Number			Opacity
			H	V	C	
52*	39.1m	blue	10B	5	4	Translucent
		red	5R	4	10	Opaque
		white	—	—	—	Opaque
53*	39.1j	blue	10B	5	6	Translucent
		white	—	—	—	Opaque
54*	39.1i	white	5G	9	1	Opaque
		blue	5B	7	4	Translucent
55*	39.1n	blue	2.5B	6	2	Translucent
		white	5G	9	1	Opaque
56	39.1f	red	7.5R	5	6	Opaque
57	39.1d	yellow	7.5Y	7	8	Opaque
58	39.1e	green	2.5GY	8	2	Translucent
59	39.1c	red	7.5R	5	6	Opaque
60	39.1l	red	5R	4	4	Opaque
61	39.1l	red	7.5R	5	8	Opaque
62*	39.1g	green	5GY	5	8	Opaque
		yellow	7.5Y	9	10	Opaque
63*	39.1h	red	7.5R	4	8	Opaque
		yellow	7.5Y	8.5	12	Opaque
64*	39.1k	red	7.5R	3	4	Opaque
		yellow	7.5Y	8.5	10	Opaque
65*	39.1o	blue	7.5PB	3	8	Translucent
		white	10GY	9	1	Opaque
66	41.2f	clear	—	—	Transparent	
67	41.2d	blue	2.5PB	6	6	Translucent
68	41.2d	blue	5PB	3	6	Translucent
69	41.2g	clear	—	—	Transparent	
70	41.2f	clear	—	—	Transparent	
71	41.2d	blue	5PB	4	4	Translucent
72	41.2e	blue	10B	5	6	Translucent
73	47.3e	clear	—	—	Transparent	
74	47.3e	clear	—	—	Transparent	
75	47.3e	clear	—	—	Transparent	
76	47.3g	clear	—	—	Transparent	
77	47.3g	clear	—	—	Transparent	
78	47.3g	clear	—	—	Transparent	
79	47.3g	clear	—	—	Transparent	
80	47.3f	clear	—	—	Transparent	
81	47.3e	clear	—	—	Transparent	
82	47.3e	clear	—	—	Transparent	
83	47.3g	clear	—	—	Transparent	
84	47.3e	clear	—	—	Transparent	
85	47.3f	clear	—	—	Transparent	
86	47.3e	clear	—	—	Transparent	

Table 23. Alton Anglo-Saxon cemetery: peak height ratios with Si K α for the analysed beads.
 nd=not detectable ?=possibly present at trace levels

Analysis No	Find No	Colour	Ti	Mn	Fe	Cu	Zn	Pb	Sn	Sb
1	9.1i	blue	nd	.26	.64	.08	nd	.04	?	nd
2	9.1i	blue	nd	.08	.55	.05	nd	?	?	nd
3	9.1i	blue	?	.73	1.58	.21	nd	.05	?	nd
4	9.1i	black	nd	.54	6.55	.01	nd	.13	?	nd
5	9.1g	black	nd	.10	3.86	.01	nd	.01	?	.02
6	9.1g	black	nd	.14	5.03	nd	nd	.03	?	.02
7	9.1a	red	nd	.18	5.68	2.12	.08	3.47	.06	?
8	9.1b	yellow	nd	nd	.93	nd	nd	9.76	.27	?
9	9.1b	yellow	nd	nd	.36	nd	nd	12.52	.17	?
10	9.1e	green	nd	.18	.58	3.79	.07	3.28	.06	?
11	9.1j	blue	.02	.33	.85	.06	nd	.02	?	nd
12	9.1f	white	nd	.31	.42	nd	nd	1.64	.23	?
13	9.1i	blue	nd	.32	.96	.15	nd	.06	?	nd
14	9.1g	black	.02	.17	4.98	.03	nd	.02	.01	.02
15	9.1k	black	nd	.54	13.65	.11	nd	.26	?	nd
16	9.1c	green	.07	.99	1.67	nd	nd	.02	?	nd
17	9.1b	yellow	nd	.10	.27	nd	nd	7.44	.10	?
18	9.1l	green	nd	.15	.91	1.98	.03	2.08	.04	?
19	9.1a	red	nd	.09	3.58	2.29	.14	2.88	.04	?
20	9.1d	black	nd	.31	2.65	nd	nd	.02	?	nd
21	9.1h	blue	nd	.06	.80	.13	nd	?	?	nd
22	12.4ic	black	nd	.36	3.70	.03	nd	?	nd	nd
23	12.4ic	black	nd	.38	5.48	.05	nd	nd	.01	?
24	12.4id	blue	nd	.65	1.21	.10	nd	.28	?	nd
25	12.4ie	clear	nd	.55	.52	nd	nd	?	?	nd
26	19.1iib	yellow	nd	nd	nd	nd	nd	5.06	.08	nd
27	19.1iib	yellow	nd	nd	.67	nd	nd	16.63	.20	nd
28	19.1iib	yellow	nd	nd	.55	nd	nd	15.11	.20	nd
29	19.1iib	yellow	nd	nd	.08	nd	nd	8.72	.10	nd
30	19.1iib	yellow	nd	nd	.57	nd	nd	16.73	.23	nd
31	19.1iib	yellow	nd	nd	.09	nd	nd	9.95	.14	nd
32	19.1i	white	.02	.68	1.95	?	nd	1.20	1.01	nd
		blue	?	.28	1.75	.07	?	.56	.66	nd
33	23.4if	red+black	nd	.29	1.71	.62	.22	1.49	.07	nd
		black	nd	.31	2.94	.43	.06	.41	.05	nd
34	23.4if	red+black	nd	.28	1.51	.64	.23	2.42	.10	nd
		black	nd	.41	2.66	.25	.04	2.89	.11	?
35	23.4ie	blue+white	?	.45	1.33	.10	nd	.91	.94	nd
36	27.1c	blue	nd	.01	.31	.08	nd	.21	?	?
37	33.8b	blue	nd	nd	.29	.09	nd	.21	?	nd
38	35.3d	blue	nd	.52	1.17	.13	nd	.45	?	nd
39	35.3d	blue	nd	.09	.85	.11	?	.09	?	nd
40	37.4e	brown	nd	1.50	.95	.10	nd	nd	.01	nd
41	37.4e	brown	nd	.97	.29	nd	nd	nd	.01	nd
42	37.4e	brown	nd	1.25	.49	nd	nd	nd	?	nd
43	37.4h	blue	nd	.11	.72	.01	nd	nd	.01	?
44	37.4h	blue	nd	.08	.53	.09	nd	nd	?	?
45	37.4h	blue	nd	.20	.58	.05	nd	.04	?	nd
46	37.4e	brown	nd	1.03	.52	nd	nd	nd	?	nd
47	37.4i	white	nd	.40	.84	.03	nd	.79	.50	.01
		white+blue	nd	.41	.62	.17	nd	.27	.39	?
48	37.4g	blue	nd	.16	.54	.13	nd	.03	?	nd
49	37.4h	blue	nd	.10	.44	.06	nd	nd	?	?
50	37.4d	clear	nd	1.29	1.23	nd	nd	nd	?	.02
51	37.4f	brown	nd	1.10	.74	?	nd	nd	.01	nd
52	39.1m	blue	nd	.01	.52	.04	nd	.33	.11	?
		white+red	nd	.27	1.14	.16	.04	1.97	.32	nd

Table 23. Continued.

Analysis No	Find No	Colour
53	39.1j	white
		white
54	39.1i	white
		white
55	39.1n	white
		white
		white
56	39.1f	red
57	39.1d	yellow
58	39.1e	green
59	39.1c	red
60	39.1l	red
61	39.1i	red
62	39.1g	green
		yellow
63	39.1h	red
		red+
64	39.1k	red
		yellow
65	39.1o	blue
		blue+
66	41.2f	clear
67	41.2d	blue
68	41.2d	blue
69	41.2g	clear
70	41.2f	clear
71	41.2d	blue
72	41.2e	blue
73	47.3e	clear
74	47.3e	clear
75	47.3e	clear
76	47.3g	clear
77	47.3g	clear
78	47.3g	clear
79	47.3g	clear
80	47.3f	clear
81	47.3e	clear
82	47.3e	clear
83	47.3g	clear
84	47.3e	clear
85	47.3f	clear
86	47.3e	clear

Table 23. Continued.

Analysis No	Find No	Colour	Ti	Mn	Fe	Cu	Zn	Pb	Sn	Sb
53	39.1j	white+blue	nd	.26	1.12	.04	nd	.70	.43	nd
		white	nd	.60	1.99	.08	nd	1.35	1.09	?
54	39.1i	white	nd	.60	1.56	nd	nd	1.65	.87	nd
		white+blue	nd	.21	.81	nd	nd	.67	.33	nd
55	39.1n	white+blue	nd	.20	.59	nd	nd	2.11	.42	?
		white+blue	nd	.25	.92	nd	nd	1.35	.47	nd
		white	nd	.22	.87	nd	nd	2.70	.53	nd
56	39.1f	red	nd	.75	4.45	1.25	.04	.74	.02	nd
57	39.1d	yellow	nd	.11	.91	nd	nd	11.65	.15	nd
58	39.1e	green	nd	.71	.48	nd	nd	nd	?	nd
59	39.1c	red	nd	.03	5.23	2.44	?	4.75	.01	.03
60	39.1l	red	nd	.44	2.49	.62	nd	.96	.06	?
61	39.1l	red	nd	.44	2.35	.54	.02	.73	.03	nd
62	39.1g	green+yellow	nd	.53	.83	?	nd	.32	.03	?
		yellow+green	nd	.44	1.45	.02	nd	6.76	.18	nd
63	39.1h	red	?	.02	1.87	1.26	.09	2.22	.04	nd
		red+yellow	nd	.12	1.37	.90	.04	6.31	.12	?
64	39.1k	red	nd	.36	2.47	.78	.07	3.12	.05	nd
		yellow	nd	.26	1.77	.45	?	6.27	.12	nd
65	39.1o	blue	nd	.04	.57	.11	?	.30	.04	nd
		blue+white	?	.16	1.08	.07	?	.48	.12	?
66	41.2f	clear	nd	.18	.31	nd	nd	nd	?	nd
67	41.2d	blue	nd	?	.33	.05	nd	.30	?	?
68	41.2d	blue	nd	.07	nd	nd	nd	.20	.02	?
69	41.2g	clear	nd	.62	.58	nd	nd	.04	.01	?
70	41.2f	clear	nd	.28	.53	nd	nd	nd	.01	nd
71	41.2d	blue	nd	.62	.80	.07	nd	.50	?	nd
72	41.2e	blue	nd	.52	.99	.22	.05	.39	?	?
73	47.3e	clear	nd	.72	1.52	nd	nd	nd	?	nd
74	47.3e	clear	nd	1.53	1.38	nd	nd	nd	?	nd
75	47.3e	clear	nd	.84	.91	nd	nd	nd	?	nd
76	47.3g	clear	.42	.41	.79	nd	nd	nd	nd	nd
77	47.3g	clear	.48	.48	.86	nd	nd	nd	?	nd
78	47.3g	clear	.54	.53	.87	nd	nd	nd	?	?
79	47.3g	clear	.84	.84	1.30	nd	nd	.01	?	nd
80	47.3f	clear	.80	.80	.71	nd	nd	nd	?	?
81	47.3e	clear	nd	.56	.49	nd	nd	nd	?	nd
82	47.3e	clear	nd	.34	.23	nd	nd	nd	?	nd
83	47.3g	clear	nd	1.64	1.68	nd	nd	nd	?	nd
84	47.3e	clear	nd	.40	.21	nd	nd	nd	?	nd
85	47.3f	clear	nd	.41	.23	nd	nd	nd	?	?
86	47.3e	clear	nd	.51	.93	nd	nd	nd	?	nd

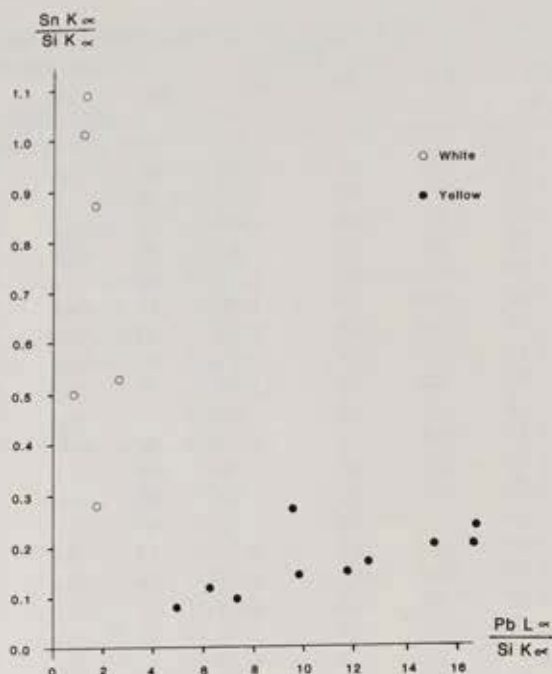


Fig 12. Alton Anglo-Saxon cemetery: relationship between tin and lead levels in the white and the yellow beads.

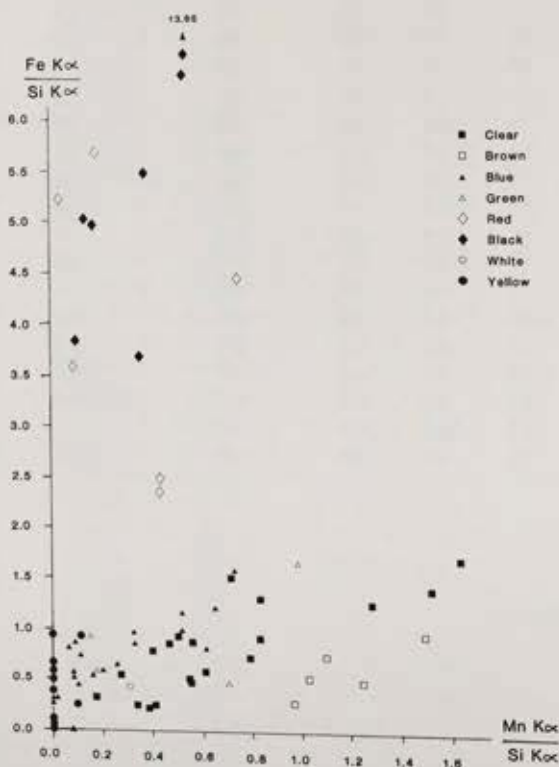


Fig 13. Alton Anglo-Saxon cemetery: relationship between iron and manganese levels in the monochrome beads.

The beads' opaque appearance was not due to opaque particles, but simply to the intensity of colour.

Brown. The colour of these beads was due to the combined effects of manganese and iron, with manganese the dominant element. They had not been opacified.

Clear. The clear beads contained higher levels of manganese relative to iron than the other types of bead apart from the iron/manganese-coloured brown beads (see Fig 13). None of those analysed contained significant levels of antimony, so manganese would appear to be the decolourant used, which is to be expected in glass produced in the post-Roman period, at least in Northern Europe. The absence of antimony indicates that Roman glass, which would have been antimony decolourised, has not been reused in these beads.

The colourants and opacifiers present were the same as those found in beads from other sites of similar date (Bayley and Wilthew 1986). Antimony was present at low levels in a few beads but in no case did it have a significant decolourising or opacifying effect. The most probable explanation for its presence would seem to be that the cullet used in producing some of the glass contained a small proportion of Roman glass.

Of the elements detected, zinc and titanium would not be expected to have had a significant effect on the appearance of the beads. Zinc was only present in a few beads, all of which contained significant levels of copper and it was almost certainly introduced with the copper.

Titanium is an impurity introduced with the sand used in the production of the glass. It has been suggested that variations in titanium content between glass beads may indicate that different sources of sand were used in making them. However, all the beads analysed in the present work contained either very low or undetectable amounts of titanium, so there was no evidence that the beads came from more than one source.

The compositions of the polychrome beads were similar to those of monochrome beads of the same colour. Where more than one colour was included in the area analysed, the results could be explained in terms of the combined contributions of several glasses each of which had a similar composition to the monochrome beads of the same colour.

Human bones - Inhumation by Rosemary Powers (Natural History) and I. (Institute of Archaeology, UCL)

The skeletons varied remarkably in preservation. In many cases the bone, removing surface depth of bone cortex. In the articular ends of the long-bones. Therefore, not all the skeletons. The matrix cleaned off was material.

The sex given is, through minimal evidence alone. The measurements, in separate tables, in millimetres was stated. Some features were more fully below. Details of the

3. Young person or female. Left tibia and fibula.

6. Female, aged about 24-40. Skull and skeleton, badly damaged. Her teeth show a broad band of wear, indicating poor health during life, and there is an area of bone loss (cribra femoris) on the skull.

7. Male, aged about 24-28. There is severe osteomyelitis involving at least the upper tibia, and two succeeding vertebrae. Abscess development, and infection (with new bone formation) of these vertebrae. Conclusion: pyogenic osteomyelitis (DRB).

8. Neonate (new born baby). Skull and one long bone.

9. Juvenile, aged 7 years. The skull is present but damaged.

10. No specimen.

11. Youth, aged 16 to 18. The second sacral arch had failed to fuse in a very minor form of spina bifida.

12. An old man, probably 50 years of age. The few remaining teeth had nothing but gum tissue.

13. Female, aged about 20. The mandible had erupted palatally.

Human bones - Inhumations

by Rosemary Powers, British Museum (Natural History) and D R Brothwell, Institute of Archaeology, University of London

The skeletons varied remarkably in their degree of preservation. In many cases soil chemicals had pitted the bone, removing surface details and an unknown depth of bone cortex. In those worst affected, the articular ends of the long-bones were also missing. Therefore, not all the skeletons could be measured. The matrix cleaned off was mixed chalk and darker material.

The sex given is, throughout, based upon anatomical evidence alone. The measurements are given as separate tables, in millimetres except where otherwise stated. Some features of interest are discussed more fully below. Details are presented in grave order.

5. Young person or female; distal ends of shafts of left tibia and fibula.

6. Female, aged about 24-27. The remains of the skull and skeleton, badly damaged by soil erosion. Her teeth show a broad band of hypoplastic enamel, indicating poor health during the fifth year of her life, and there is an area of spongy bone under the femur head (cribra femoris) suggesting more recent ill-health.

7. Male, aged about 24-27. Skull and skeleton. There is severe osteomyelitis of the lower back, involving at least the uppermost segment of the sacrum, and two succeeding lumbar. There is marked abscess development in the lower lumbar (at least) and infection (with new bone development) on the anterior aspects of these vertebral bodies. The articular facets of the neural arch do not appear to be affected. Conclusion: possibly tuberculous osteomyelitis (DRB).

8. Neonate (new born baby). Fragments of skull, ribs and one long bone.

9. Juvenile, aged 7 years. The main bones and the skull are present but damaged.

10. No specimen.

11. Youth, aged 16 to 18, sex uncertain. The second sacral arch had failed to fuse in the midline, so a very minor form of spina bifida occulta is present.

12. An old man, probably 50 or more. He had lost most of his teeth, the few remaining were carious, and had nothing but gum to bite against.

13. Female, aged about 20. The upper right second premolar had erupted palatally, apparently crowded

out of its normal position. The vertebral column shows two types of abnormality: a transitional lumbo-sacral vertebra with a midline cleft fused on to the sacrum; and some curious pits in the vertebral bodies in the lumbar and lower thoracic regions where they contact the intervertebral discs.

14. Female, aged about 23. A small woman, with several minor sutural variations and a paramolar cusp on the lower left second molar which is virtually a supernumerary tooth. There is a cut through the left scapula which may be either an unhealed wound or caused during excavation. There is a bilateral cribra femoris.

15. Infant aged 2 years; fragmentary skull and main limb bones.

16. Male, aged about 28; remains of skull and skeleton. His palate and left shin show signs of inflammation (periosteitis) which may have been more widespread before soil action destroyed the bone surface.

17. Juvenile, aged 6½-7 years. Skull, teeth, one humerus, one scapula, and a mass of bone splinters representing the rest of the skeleton. Slight, symmetrical caries of the deciduous molars.

18. No specimen.

19. Infant aged 4 years; crushed skull and most of skeleton.

20. Old female, 50 or older. Remains of skull and skeleton, with considerable tooth loss.

21. Old female (50 or older); skull and skeleton. There is osteoarthritis of the vertebral column, leading to fusion of two cervical vertebrae (probably C4 and C5). There is collapse and fusion of two upper thoracic vertebrae, possibly the result of stress fracturing. In view of the rough and unusual nature of the bone surface in this region, it may be an infective arthritis and not an ordinary degenerative form. The few remaining teeth are worn to the roots and one has a large carious cavity.

22. Skull and upper four cervical vertebrae only, of a male aged about 25. There are two extensive healed wounds on the cranium, probably sword cuts (Fig 14). This skull is discussed in detail later in the report.

23. Female aged about 35; skull and skeleton. The teeth show several caries cavities and an abscess. There is slight periosteitis on the outer aspect of the manubrium sterni, cause unknown; and some osteoarthritic changes in the lumbar vertebrae.

24. Youth aged about 15, probably male. A triangular 'inca bone' is present in the skull, the only one in the series. One patella shows a clean cut,

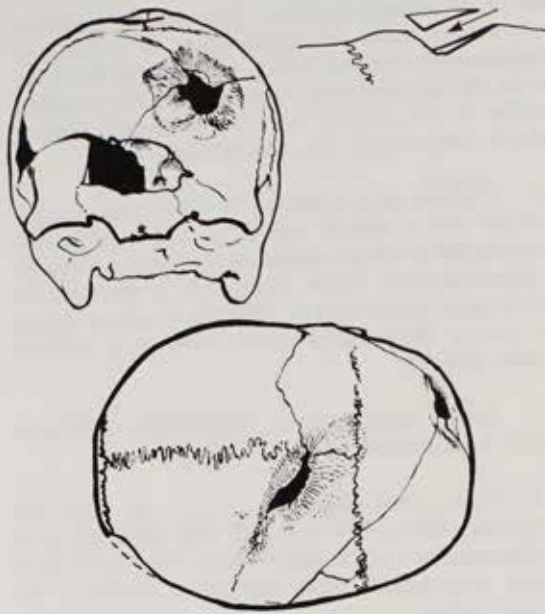


Fig 14. Alton Anglo-Saxon cemetery: male skull from Grave 22, showing healed wounds.

possibly resulting from a sword-cut across the knee shortly before death (if it was not caused during excavation).

25. Old female, aged over 45; remains of skull and skeleton. The remaining clavicle, apparently the right, is very bent, probably the result of an old, healed fracture (Fig 15c). The femoral shafts look rather bowed, but probably this is illusory (the result of differential erosion of the femur bone). The teeth are heavily and irregularly worn, and carious.
26. Male, aged between 16 and 19; very badly preserved skull and skeleton. There is agenesis of both lower third molars. The right lower first molar is almost totally destroyed by caries.
27. Juvenile aged about 10; skull and skeleton.
28. Infant aged about 18 months; very imperfect skull and skeleton.
29. Juvenile aged 7 or 8 years; very imperfect skull and skeleton.
30. Robust male aged 25 to 30. Only fragments remain, the skull is almost entirely missing.
31. Juvenile aged about 4 years. The teeth are well-preserved but all the bone is reduced to splinters.
32. Male aged about 18; skull and skeleton. He has an open metopic suture.
33. Female aged 50 or more; very incomplete skull and skeleton, teeth carious and worn.
34. Male aged 20; skull and skeleton. There is partial anodontia, all fourth molars and both upper second premolars being absent, so it is possible that he was related to grave 36.
35. Female aged about 30-35; fairly well-preserved but pitted by soil action. There are early changes probably due to osteoarthritis on the articulations of the thoracic bodies.
36. Male aged about 35-40; imperfect skull and skeleton. There are early osteoarthritic changes on the vertebral bodies. Both lower second premolars are absent, apparently never formed, though the third molars are present.
37. Youth aged about 16, sex uncertain; the skull and skeleton are imperfect, warped, and eroded.
38. No specimen.
39. Old male with considerable tooth loss, probably over 50; skull and skeleton. The remaining teeth have caries and calculus deposits, only the anterior teeth being functional.
40. Imperfect skull and skeleton of an old male whose dental condition is even worse than that of the previous specimen. One molar has been worn down to expose the pulp cavity, and also hollowed by caries acting from *below*, which could only happen if the junction of the roots was already exposed by recession of the gums. One hand phalange shows a patch of periosteitis, indicating some sort of infection of the finger, but it is too badly damaged to diagnose.
41. Youth aged 16-17 years; a very imperfect and eroded skull and skeleton. Bands of hypoplasia on the teeth suggest an illness (or famine?) at age 2 years, followed by several years of ill health.
42. Male aged about 30-35. Both skull and skeleton are present, but the upper half is far more eroded than the pelvis and legs. There is agenesis of all four third molars. The right hip joint is somewhat deformed by osteoarthritis, though the left is not obviously affected. There is a low, spindle-shaped boss of bone in the centre shaft of the left femur, on its inner aspect, which is probably a harmless bone tumour (exostosis) unconnected with the osteoarthritis (Fig 15b).
- An old double fracture of the right clavicle has healed leaving a zig-zag deformity exaggerating the natural curvature of the bone.
43. Female aged over 45; remains of skull and skeleton. The teeth are very worn and there are dental abscesses due to infection of the exposed pulp cavity.

Table 24. Alton Anglo-Saxon

Grave number	Fe Head diameter	FeL1	FeL2
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-
7	-	-	-
8	-	-	-
9	-	-	-
10	-	-	-
11	-	-	-
12	-	-	-
13	-	-	-
14	-	-	-
15	-	-	-
16	-	-	-
17	-	-	-
18	-	-	-
19	-	-	-
20	-	-	-
21	-	-	-
22	-	-	-
23	-	-	-
24	-	-	-
25	-	-	-
26	-	-	-
27	-	-	-
28	-	-	-
29	-	-	-
30	-	-	-
31	-	-	-
32	-	-	-
33	-	-	-
34	-	-	-
35	-	-	-
36	-	-	-
37	-	-	-
38	-	-	-
39	-	-	-
40	-	-	-
41	-	-	-
42	-	-	-
43	-	-	-
44	-	-	-
45	-	-	-
46	-	-	-
47	-	-	-
48	-	-	-
49	-	-	-
50	-	-	-
51	-	-	-
52	-	-	-

Measure calculated according to Trotter

Table 25. Anglo-Saxon cem

Grave number	Fe Head diameter	FeL1	FeL2
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-
7	-	-	-
8	-	-	-
9	-	-	-
10	-	-	-
11	-	-	-
12	-	-	-
13	-	-	-
14	-	-	-
15	-	-	-
16	-	-	-
17	-	-	-
18	-	-	-
19	-	-	-
20	-	-	-
21	-	-	-
22	-	-	-
23	-	-	-
24	-	-	-
25	-	-	-
26	-	-	-
27	-	-	-
28	-	-	-
29	-	-	-
30	-	-	-
31	-	-	-
32	-	-	-
33	-	-	-
34	-	-	-
35	-	-	-
36	-	-	-
37	-	-	-
38	-	-	-
39	-	-	-
40	-	-	-
41	-	-	-
42	-	-	-
43	-	-	-
44	-	-	-
45	-	-	-
46	-	-	-
47	-	-	-
48	-	-	-
49	-	-	-
50	-	-	-
51	-	-	-
52	-	-	-

Measure calculated according to Trotter

Table 26. Alton Anglo-Saxon

Grave	A	B	14
1	180	183*	170
2	178	179*	121.5
3	164	160	95.5
4	-	-	124
5	-	-	95
6	152	125	115
7	136	114	117
8	112	116	115
9	115	108	101
10	107	105	106
11	89	102	98
12	104	115	99
13	-	-	61.5
14	-	-	89
15	-	37	41
16	-	-	45
17	-	-	107
18	-	-	40
19	-	-	33
20	-	41	35
21	-	31	29.5
22	-	46	44.5
23	-	-	26
24	-	-	49
25	-	-	8
26	-	-	27
27	-	116	106
28	-	95	91
29	-	45.5	42
30	-	36	29
31	-	-	22
32	-	25	25
33	-	21	19
34	-	53	51
35	-	122*	120*
36	-	-	84

Table 24. Alton Anglo-Saxon cemetery: post-cranial measurements of males.

Grave number	Fe Head diameter	FeL1	FeL2	FeL3	FeD1	FeD2	TiL1	TiL3	TiD1	TiD2	HuL1	HuD1	HuD2	RaL1	U1L1	FiL1	Stature (in cm)
Unnumbered	49	-	-	-	26	35	364	361	33	23	327	22	18	250	274	-	-
7	46	-	-	-	26	38	375	-	33.5	24	-	-	-	-	-	-	170
12	48	446	443	427	27	39	396	384	39.5	28.4	-	-	-	-	257	-	170.5
16	49.4	455	454	435.5	-	-	-	-	-	-	-	-	-	-	-	-	161.5
22	-	-	-	-	28	37	-	-	-	-	-	-	-	-	-	-	-
30	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	338.5	-	31	22	-	-	-	-	-	-	-
34	-	-	-	-	28	33	-	-	34	21	-	-	-	-	-	-	163.9
36	48+	-	-	-	25	33.5	-	-	32.5	23	-	-	-	-	-	-	-
40	-	-	-	-	26	34	355	346	35	24	-	-	-	-	-	-	-
42	46	447	442	-	25	37	357	-	36	22	-	-	-	-	-	356	168
44	-	-	-	-	27	33	-	-	-	-	-	-	-	-	-	-	168
45	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Stature calculated according to Trotter and Gleser (1958).

Table 25. Anglo-Saxon cemetery: post-cranial measurements of females.

Grave number	Fe Head diameter	FeL1	FeL2	FeL3	FeD1	FeD2	TiL1	TiL3	TiD1	TiD2	HuL1	HuD1	HuD2	RaL1	U1L1	FiL1	Stature (in cm)
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	44	450.5	443	421	25	31.5	352	344	30	22.5	303	20.5	18	234	-	-	168(?)
14	39	391	386	370	22.5	21.5	315	-	28	21	271	20.5	15	201	208	-	151
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	38	423	417	-	23	29.5	-	-	28	22	-	-	-	-	-	-	158.5
23	44	425	420	405	24.4	31	347	-	30	23	300	22	17	-	-	-	160.5
25	-	-	-	-	28	31	-	-	33	22	-	-	-	-	-	-	-
33	38	-	-	-	24	32	-	-	28	20	-	-	-	-	-	-	-
35	40	415	409	385	26	29.5	333	-	29	22	300	22	18	224	248	331	155.5
43	-	-	-	-	22	31	-	-	39	21	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	29	23	-	-	-	-	-	-	-

Stature calculated according to Trotter and Gleser (1958).

Table 26. Alton Anglo-Saxon cemetery: cranial measurements of females and sub-adults.

Grave:	6	13	14	20	21	23	25	33	35	43	47	11	37	41
L	190	183*	170	-	181	174	-	-	184	-	180	-	-	-
B	138	139*	121.5	-	132	135	-	-	126	-	-	-	-	-
B'	94	100	95.5	94	90.5	101	-	-	91	-	98	95	-	-
H'	-	-	124	-	-	128	-	-	-	-	-	-	-	-
LB	-	-	95	-	-	107	-	-	-	-	-	-	-	-
S1	132	125	115	127	120	120	-	-	128	-	136	121	121	-
S2	130	114	117	-	124	113	-	-	117	-	126	132	111	-
S3	112	116	115	-	110	117	110	-	135	-	110	115	126	-
S'1	115	108	101	111	105	108	-	-	113	-	114	106	106	-
S'2	117	105	106	-	111.5	103	-	-	109	-	115	121	100	-
S'3	89	102	98	-	90	97	93	-	102	-	92	92	103	-
B&B	104	115	99	-	112	109	-	-	-	-	-	-	-	-
G'B	-	-	61.5	-	-	-	-	-	-	-	-	-	-	-
GB	-	-	89	-	-	94	-	-	88.5	-	-	-	-	-
G2	-	37	41	-	-	40	-	-	45	-	-	41	-	-
G'1	-	-	45	37*	-	-	-	-	-	-	-	-	-	-
J	-	-	107	-	-	-	-	-	-	-	-	-	-	-
O1'	-	-	40	35	-	-	-	-	-	-	-	-	-	-
O2	-	-	33	-	-	-	-	-	-	-	-	-	-	-
FL	-	41	33	-	-	32	-	-	-	-	-	-	-	-
FB	-	31	29.5	-	-	27	-	-	-	-	-	-	-	-
MH	-	46	44.5	40	47	45*	47	-	44	43*	-	48	42	45*
NB	-	-	26	-	22	24.5	-	-	22*	-	-	-	-	-
NH	-	-	49	-	-	-	-	-	-	-	-	-	-	-
SC	-	-	8	-	-	11	-	-	-	-	-	-	-	-
DC	-	-	27	22	-	-	-	-	-	-	-	-	-	-
W1	-	116	106	-	-	117.5	-	-	120.5	-	-	-	-	-
GoGo	-	95	91	-	84	91	106	-	104	-	97	97	45	49
ZZ	-	45.5	42	41	48	43	44	45	44.5	48	44	44	23	29.5
RB	-	30	29	-	33	32	26	-	29	34	32	29	-	27*
H1	-	-	22	-	-	29	-	29	27*	-	-	25	23	22
MZH	-	25	25	-	-	23	-	-	25	25	20	20	-	-
CYL	-	21	19	-	16	21	-	-	22	19	20	20	54	50
CH	-	53	51	-	55	53	-	-	66.5	-	58	54	-	-
MA	-	123*	120*	-	-	115*	-	-	125*	-	126*	135*	-	-
CrCr	-	-	84	-	-	96	-	-	100	-	25	94	-	-

Table 27. Alton Anglo-Saxon cemetery: cranial measurements of males.

Graves:	7	12	16	22	24	30	32	34	36	39	40	42	44	45	26
L	197	175	194*	194	-	-	184	188	-	180	179	-	185.5	-	191*
B	152	124	136	141	135	-	146.5	-	-	-	149	-	136	-	147*
B'	102	89	-	99	96	-	107	-	-	-	99	-	101	-	97
H1	-	-	-	125	-	-	-	-	-	-	-	-	-	-	-
LB	-	-	-	103	-	-	-	-	-	-	-	-	-	-	-
S1	133	115	-	133	130	-	121	134	-	117	122	-	128	-	-
S2	126	112	131	145	119	-	120	134	-	129	118	-	120	-	125
S3	127	114	122	112	147	-	125	120	128	118	116	118	127.5	-	116*
S'1	118	106	-	116	111	-	102	117	-	105	107	-	111	-	130
S'2	115	104	121.5	127	106	-	105	122	-	113.5	107	-	110	-	110
S'3	106	93	98	91	110	-	99	114	104	95	96	99	102	-	106
BiB	118	-	109	112	118	-	106	-	-	-	-	-	110	-	-
G'B	-	-	-	-	-	-	-	94	-	-	-	-	-	-	-
GB	-	-	-	90	-	-	-	42	-	-	-	-	-	-	-
G2	39	-	46.5	43	42*	-	43	42	-	-	-	40	-	-	42
G'1	-	-	43*	46	-	-	46	43.5*	-	-	-	-	-	-	-
J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O1'	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FL	-	-	-	36	36.5	-	-	-	-	-	-	-	-	-	-
FB	34	-	31	27	26	-	32	-	-	-	-	-	36	-	-
MH	51.5	47	48	54	48	-	47.5	46	-	49	-	52	49	49	47*
NB	27	-	-	22.5	22	-	23	25	-	-	-	-	-	-	23
NH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SC	-	-	-	10	-	-	-	-	-	-	-	-	-	-	9.5
DC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
W1	117.5	-	-	120	114	-	-	106	116	126	-	-	130*	-	-
GoGo	102	-	-	111	93	-	92	-	114	96	96	119	102	-	-
ZZ	48	-	-	48	42	-	48	41	44.5	45	44	47	46	-	46
RB	31	-	-	32.5	33	-	37.5	30	31	32.5	32	35	30	-	32
H1	31.5	-	-	28	29	-	30.5	28	33.5	30	-	35	-	-	35
M2H	27	-	-	29	23	31	28.5	24	29	29	-	29.5	27.5*	-	25
CYL	21.5	20.2	-	23	20	-	-	17	19	20	-	22	21.5	-	-
CH	54.5	-	-	72	46	-	-	57	71	51	66	70	69	-	56
MA	117*	-	-	114*	114*	-	120*	136*	125*	-	125*	114*	130*	-	-
CrCr	95	-	-	93	96	-	-	91	-	-	-	-	97.5	-	-

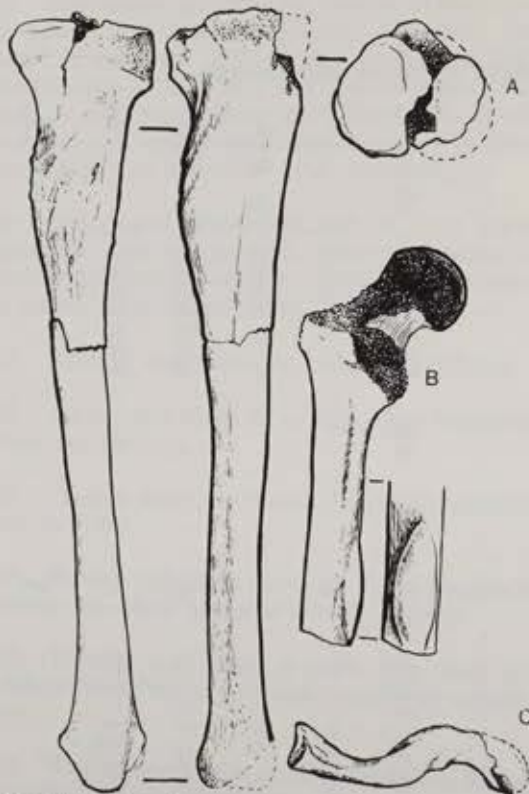


Fig 15. Alton Anglo-Saxon cemetery: post-cranial pathology of A) swollen tibia from Grave 45 tibia; B) femur with osteoma from Grave 42; C) clavicle from Grave 25.

44. Probably male, over 45; somewhat incomplete skull and skeleton. There are osteoarthritic changes in both lumbo-sacral articulations, and the left hip joint. There is a dental abscess due to attrition exposing the pulp cavity. The metopic suture is open.

45. Robust adult male; skeleton and some fragments of the skull. The right tibia shows a large osteomyelitic swelling involving all the upper half of the shaft (Fig 15a).

46. Infant aged 3 years; imperfect skeleton with skull.

47. Female aged about 35; skull and skeleton, badly damaged by soil erosion.

48. No specimen.

49. Two individuals, as follows:
 1) Juvenile, aged about 6 or 8 years. Bones of left leg and hip only.
 2) Adult, possibly male. Fragments of skull, pelvis, left humerus and femur. There is a large paramolar tubercle on the upper left second molar.

The dental variations (F...
 Siles and notched upper...
 Cowbell's cusps on the fir...
 deciduous molars, are commo...
 modern British populations...
 reported high frequency. Som...
 also occur, which may...
 relationship between the individ...
 The expression of relationships...
 individuals 34 and 36, and b...
 34.

Excess teeth (hyperdont)

There are no true supernumerary...
 however, two cases of an...
 having its own root and reser...
 stemmy fused on to the oth...
 molar. Although the cases di...
 individuals may have been r...

Case 2: Grave 49. Adult male...
 with the lower premolars and...
 stem cap is fused to the ante...
 left upper second molar. Its r...
 by and chemicals but origina...
 adjacent normal root and was...
 Fig 16a.



Fig 16. Alton Anglo-Saxon...
 anomalies. A) paramo...
 49. B) extra cusp from...
 placed pre-molar from...
 of six permanent...
 E) compression for...
 agenesis from Grave

The dental variations (Fig 16)

Skew and notched upper lateral incisors, and Carabelli's cusps on the first molars and second deciduous molars, are common variations amongst ancient British populations, and occur here in the expected high frequency. Some less frequent variations also occur, which may indicate blood relationships between the individuals similarly affected. The suggestion of relationship is strongest between individuals 34 and 36, and between 49 (adult) and 14.

Excess teeth (hyperdontia)

There are no true supernumerary teeth. There are, however, two cases of an extra cusp apparently having its own root and resembling a simple supernumerary fused on to the otherwise normal second molar. Although the cases differ in detail, the two individuals may have been related.

Case 1: Grave 49. Adult male? Only the left molars with the lower premolars and canine remain. The extra cusp is fused to the anterior buccal cusp of the left upper second molar. Its root has been destroyed by soil chemicals but originally lay parallel to the adjacent normal root and was lightly attached to it (Fig 16a).

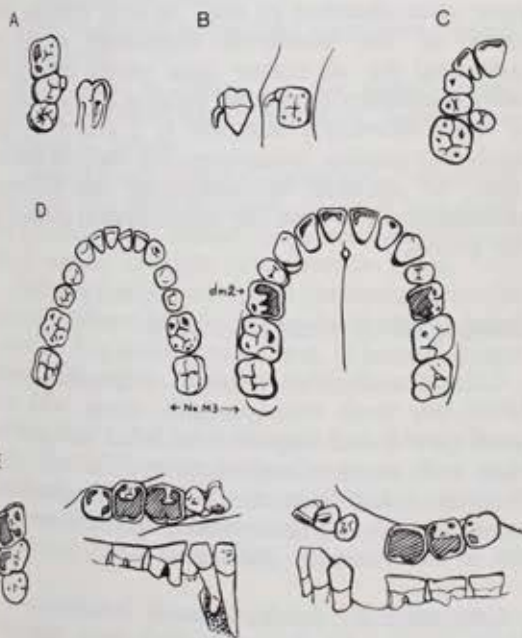


Fig 16. Alton Anglo-Saxon cemetery: dental anomalies. A) paramolar cusp from Grave 49. B) extra cusp from Grave 14. C) misplaced pre-molar from Grave 13. D) lack of six permanent teeth, Grave 34. E) compression form and pre-molar agenesis from Grave 36.

Case 2: Grave 14. Female. All teeth are present. A well-marked accessory tooth is fused by the crown on to the buccal surface of the bucco-distal cusp of the left lower second premolar. The root is completely separate. No other dental anomalies are present (Fig 16b).

If these accessory cusps can be counted as a single anomaly, the frequency is four teeth of 92 possible, or (less accurately, because of post-mortem damage) two individuals affected out of 29 possible to observe.

Naturally missing teeth (partial anodontia)

In British populations the third molar is quite frequently absent or reduced in size. This trait is so common that family relationship cannot safely be deduced from it. Two of the Alton series lack all four third molars (34 and 42), and another (26) lacks them in the mandible only. Two other individuals (16 and 23) have all four distinctly reduced. Thus the frequency of third molar agenesis is ten of a possible 79 teeth.

Rather less frequently, the upper lateral incisor is similarly affected, but there are no such cases in this comparatively short series. However, there are two cases of a (usually) rarer anomaly, namely absence of the second premolars with persistence of the second deciduous molar. This is a very high frequency for a short series and suggests that the individuals were blood relations.

Case 1: Grave 34. As mentioned above, this young man lacked all third molars. He also lacked both upper second premolars, their position being filled by rather worn but healthy milk molars. Several of the anterior teeth are more widely spaced than usual, and slightly irregular (Fig 16d).

Case 2: Grave 36. This man was at least fifteen years older, and had lost the milk molars which replaced the missing lower premolars. The size of the resulting space and of the contact facets on the adjacent teeth, is too great for premolars. On the left side the first premolar had tilted back to close the space, before its root had quite finished growing (as can be seen by a 'kink' at its tip). This suggests that the left deciduous molar was shed about its normal time, though the right persisted and has left a full-sized gap. The upper second molars are of a markedly 'compressed' form, similar to those of grave 6 (Fig 16e).

There are no cases of impacted third molars or canines, which are the teeth most frequently found malerupted, so the one case of misplaced premolar might be a form of the developmental anomaly just described.

Case 3: Grave 13. This young woman had no room in the dental arcade for the upper right second premolar, which erupted palatally. There are no other dental anomalies (Fig 16c).

The frequency for second premolar agenesis is thus four out of a possible 92 teeth, with one case of displacement.

No evidence indicative of blood relationship was given by the other non-metrical variables noted, that is, minor sutural variations and the like. Two cases of metopic suture were noted in 32 individuals, about the expected number. There was one case each of *os inca* (one in 23 skulls) and bilateral sphenoid bones (of only two skulls with the sphenoid area intact). Of 21 skulls, eight had one or more small wormian bones in the lambdoid suture, one case being multiple though not grossly abnormal. There were no clear cases of tori of the jaws.

The population shows a fairly even spread of age and sex, in so far as these could be determined. There was one newborn infant, about ten children and six young people in their 'teens', while the adults ranged from 20 years to five fairly elderly individuals with considerable tooth loss. The adults were almost equally divided as to sex. There is no evidence of how they died, though several healed injuries and other pathological conditions were found.

Grave 22. Sword wound and ?pseudo-trephination (Fig 14)

Two areas which show bone lesions followed by healing are present in this man. The largest extends across the parietals near bregma, although the wound was mainly on the right parietal. The most anterior extension of the wound (and its probable inflammatory sequelae) is just on to the frontal at bregma.

Although healing obscures some detail, it seems likely that the original lesion extended for about 90mm. From the long and relatively straight nature of the lesion, it would seem most likely to have been the result of a sword cut. Judging from the angular nature of the anterior and posterior sides of the cut, the direction of the blow was at a fairly low angle to the skull and from behind. The weapon had considerable impact and certainly cut down into the inner table of the cranial vault. From the irregularity of the margins of the wound, it can be supposed that there followed a period of wound infection – then later of healing. This amounted to some bone loss and the 'rounding off' of the originally shattered bone. Also, the possibility that splinters of loose bone in the wound were removed 'surgically' cannot be ruled out.

In contrast to the long narrow parietal damage, the frontal lesion is far more circular in shape – or at

least the external margin is. It is positioned at the left frontal boss region, and takes the form of a roughly circular 'crater' with a maximum diameter of 53mm. The sides of this 'crater' are gently inclined, and, although post-mortem damage obscures central detail, it seems probable that there was a small perforation through to the endocranial surface. Considerable healing has taken place, and clearly the individual survived this traumatic episode. Beyond the external margin of the lesion, there is no marked irregularity, suggesting that inflammation must have been minimal. The question arises with this frontal lesion as to whether it could be the result of an intentional trephine operation. The general circular shape certainly suggests this. However, the low-angled inclination of the sides of the hole could be used to argue against such a conclusion. Also, there are various instances in the literature of glancing sword cuts which have produced pseudo-trephinations – rounded holes with low-angled sides. In view of this, it is difficult to be certain of the origins of the frontal damage – especially when healing has obscured details of either surgical scraping or sword slicing marks.

Cremations, by Rosemary Powers, British Museum (Natural History)

All the bones are fully cremated, pale grey in colour with occasional areas of dark grey interior exposed by breakage. They are calcined, fissured, and in some cases distorted by heat. So little remains that many of the numbered cremations could be accounted for as scatter from others unless the context indicates otherwise. Judging by the quantity of bone recovered, numbers 1, 2 and 4 are undoubtedly genuine cremations. The status of the rest must be decided by comparing the following anatomical notes with the archaeological context of the graves.

Catalogue of cremated bone

Cremation 1. Adult female, or possibly youth. Skull: one tooth root (probably canine) with root canal closed, and fragments of rather thin parietal bone with an open sagittal suture. Skeleton: many fragments including a femur head, parts of femur and radius shafts, and distal extremities of two basal toe phalanges.

Cremation 2. Adult, probably female. Skull: pieces of rather thin skull vault, only one piece (probably the bregmatic angle of the parietal) showing an open suture. Skeleton: long-bone including femur, and two toe phalanges. All rather featureless.

Cremation 3. Female or youth? Skull: two fragments showing traces of open sutures.

Skeleton: fragments of small skull.

Cremation 4. Adult male. Skull: skull fragments with one tooth root, representing two rows of anterior teeth (?carnal closed). Fragments of jaw showing teeth were present:

-- 6 5 4 3 2 1 1

-- 6 5 4 - 2 1 1

Left mandibular condyle. Skeleton: fragments of tibia, distal end of a humerus, all well-preserved length of ulna (about third of the bone, and hand bone (metacarpals, phalanges), several cervical vertebrae, distal end of atlas. Neither the mandibular condyle show arthro-

Cremation 5. No specimen.

Cremation 6. Adult. Skull: one anterior tooth in its socket. Skeleton: fragments of long-bone.

Cremation 7. Possibly but not necessarily an accidental mixture. Short bone, southwest. A number, probably long-bone.

Many fragments of calcined bone, probably long-bone.

Short bones in centre pit. Fragments, one being from a thin bone, possibly a rib.

Unburnt bones on top of cremation. Two short lengths of unburnt bone, one is undoubtedly animal, the other is human, it might be a jawbone.

Unburnt bones in southwest corner. Unburnt length of long-bone. It is indeterminate, but it is a radius, humerus or ulna.

Cremation 8. Adult? Fragment of skull. The thickest, undoubtedly human, made with a white crust, not the majority of this series. An unburnt long-bone is also present.

Cremation 9. Human? One cremation, a piece of thin cortex.

Cremation 10. Human. Five fragments, all grey made with a white crust.

Cremation 11. Unidentifiable. Unidentifiable fragments, probably

Skeleton: fragments of small, smooth long-bone shafts.

Cremation 4. Adult male in prime of life.
Skull: vault fragments with open sutures and robust muscle markings, representing all the main bones. Two roots of anterior teeth (?canines) with the root canal closed. Fragments of jaws showing that the following teeth were present:

-- 6 5 4 3 2 1 1 2 3 4 5 6

-- 6 5 4 - 2 1 1 2 - - - -

Left mandibular condyle.

Skeleton: fragments of tibia, femur, pelvis, and distal condyle of a humerus, all robust. An unusually well-preserved length of ulna shaft, comprising the lowest third of the bone, and several fragments of hand bone (metacarpals, phalanges and one carpal). Several cervical vertebrae, damaged but recognisable, including atlas. Neither the cervicals nor the mandibular condyle show arthritic changes.

Cremation 5. No specimen.

Cremation 6. Adult.

Skull: one anterior tooth in its socket, root canal closed.

Skeleton: fragments of long-bone and (?) pelvis.

Cremation 7. Possibly but not certainly human. More likely an accidental mixture.

a. Burnt bone, southwest. A minute calcined fragment, probably long-bone.

b. Many fragments of calcined long-bone resembling the above.

c. Burnt bones in centre pit. Six slightly larger fragments, one being from a thin skull. Same degree of burning as above.

d. Unburnt bones on top of cremation 7 in topsoil. Two short lengths of unburnt, decayed long-bone. One is undoubtedly animal, the other indeterminate but, if human, it might be a juvenile fibula.

e. Unburnt bones in southwest post-hole. A similar decayed, unburnt length of long-bone shaft, round in section. It is indeterminate, but, if human, might be an infant radius, humerus or femur.

Cremation 8. Adult? Fragments of long-bone shaft. The thickest, undoubtedly femur, are dark grey inside with a white crust, not white throughout like the majority of this series. An intrusive fragment of unburnt long-bone is also present.

Cremation 9. Human? One cremated long-bone fragment, a piece of thin cortex. Probably scatter.

Cremation 10. Human. Five fragments of skull, dark grey inside with a white crust, and a long-bone fragment.

Cremation 11. Unidentifiable. Two minute and unidentifiable fragments, probably scatter.

Cremation 12. No specimen.

Cremation 13. No specimen.

Cremation 14. Adult, probably male. Two groups were presented for study. They are probably parts of the same cremation, but the evidence is inconclusive.

a. Bones found outside pot. Skull: three fragments of occipital (?) bone showing a length of open lambdoid (?) suture. Skeleton: many long-bone shaft fragments including femur and tibia.

b. Bones inside pot. Skull: four more skull fragments showing some lengths of open suture. These are distorted by heat and impossible to identify with certainty. Skeleton: post-cranial fragments including the head of a femur or humerus, part of the distal condyle of a humerus, the arch of a vertebra, sciatic notch of ilium, and a fibula shaft.

Cremation 15. Unidentifiable, but possibly juvenile.

a. Five fragments, two of skull and three of long-bone with thin cortex.

b. Burnt bone near cremation. Two fragments of similar long-bone.

Cremation 16.

a. Six cranial fragments, including a short length of open suture, and many long-bone fragments.

b. Long-bone fragments.

Cremation 17. Four fragments of long-bone shaft, including tibia.

Cremation 18. Two minute, unidentifiable, bone splinters.

Cremation 19. One fragment of skull with a trace of open suture, and six unidentifiable fragments.

Cremation 20. Either juvenile or senile. Fragments of both skull and long-bone. The skull appears to be very thin.

Cremation 21. Unidentifiable. Splinters from a long-bone, probably all from the diaphyseal region of the same large long-bone.

Cremation 22. Human? Three splinters of long-bone, one being from either a femur or humerus shaft.

Cremation 23. No specimen.

Cremation 24. Probably adult. Five cranial fragments showing open lengths of the lambdoid suture, and many long-bone fragments.

Cremation 25. Unidentifiable long-bone fragments.

Cremation 26. Elderly person or possibly youth? Fragments of thin skull vault, and post-cranial fragments including a length of tibia shaft and possibly part of the patella.

Cremation 27. Adult. A skull fragment from near asterion, and many long-bone fragments including femur and ulna shaft.

Cremation 28. Unidentifiable. Three minute splinters.

Cremation 29. Adult. Fragments, including skull vault, patella, and long-bone shafts.

Cremation 30. Probably elderly person or youth. Fragments, including three pieces of rather thin skull vault, and two splinters of long-bone.

Cremation 31. Elderly adult, probably female.
a. Skull: rather thin and dense skull fragments (occipital and parietal bones) with some lengths of open suture, probably the lamdoid. Part of the left mandibular ramus showing the molar and premolar sockets. These teeth were present at death. The roots of one molar are present, slightly malformed (fused together in a conical mass).
Skeleton: recognisable areas include the odontoid process of the atlas, the body of another cervical with distinct osteoarthritic changes (lipping and degeneration of the body articulation) and part of the femur 'neck'.

b. Bones near cremation 31, probably part of it. Another skull fragment, and fragments of radius and humerus (?) shafts.

Cremation 32. Adult, probably male. Fragments, including skull (split through the diplœe) and some pieces of long-bone, probably femur. Although little remains, the size suggests the sex.

Cremation 33. Four separate packets, all unidentifiable. There is nothing inconsistent with their being scatter from human cremations.

a. Burnt bone below the northwest corner. One fragment of long-bone, perhaps phalanx or radius, but not identifiable as to species.

b. Burnt bone in north gully. A fragment of a larger long-bone, perhaps femur or humerus, but not identifiable as to species.

c. Burnt bone in north gully. Three unidentifiable long-bone fragments.

d. Burnt bone, sieved. Three unidentifiable fragments, two being of long-bone.

Cremations 34-42. No specimens.

Cremation 43. Probably human: four fragments of cremated bone, one being probably femur shaft; one piece of long-bone, either humerus or femur shaft; and some smaller fragments of long bone.

Cremations 44-6. No specimens.

Cremations: a report on additional material, by Alison Cameron, University of Bradford

Fourteen samples of human cremated bone not available at the time the report by Rosemary Powers was written were examined in the laboratory; the minimum number of individuals was estimated as fourteen, as none of the cremations contained more than one individual.

Observations were made for age, but no estimations of sex or stature could be made. No anthropology or pathology was noted. The results by individual for bone preservation, age and weight of the cremation are given in the catalogue below. The results are summarised in Table 28.

Demographic results

There were two middle-aged adults and one old adult present in this sample population. No other observations could be made.

Table 28. Alton Anglo-Saxon cemetery: cremations - additional material, by age and weight of human bone.

Burial	Age	Weight
1	-	-
4	-	-
6	-	-
7	middle-aged adult?	-
10	-	-
12	middle-aged adult	469g
13	-	-
19	-	-
31	-	-
32	?old adult	-
33	-	-
34	-	-
35	-	-
46	-	-

Catalogue of cremated bone: additional material

Cremation 1. This contained six fragments of bone which could not positively be identified as human.

Cremation 4. This contained five fragments of human bone. No further observations were possible.

Cremation 6. This contained thirty fragments of bone which could not positively be identified as human.

Cremation 7. This contained one human skull vault fragment. No further observations were possible.

Cremation 10. This contained one fragment. No further observations were possible.

Cremation 12. Bone preserved. Most of the individual was identified as a young adult, based on the endocranial sutural fusion. Weight: 469g.

Cremation 13. This contained one fragment, probably human bone. No further observations were possible.

Cremation 19. This contained one fragment, probably human bone. No further observations were possible.

Cremation 31. This contained one fragment which were not positively identified as human.

Cremation 32. This contained one fragment, probably from a young adult, with endocranial sutural fusion. No further observations were possible.

Cremation 33. This contained one fragment. No further observations were possible.

Cremation 34. This contained one fragment. No further observations were possible.

Cremation 35. This contained one fragment which could not positively be identified as human.

Cremation 46. One long-bone fragment which could not positively be identified as human.

The phosphate samples were analysed for iron and manganese by the method developed by the Norfolk Archaeological Society.

The samples

The samples were submitted for analysis as follows: Cremation 30. Soil from cremation deposit.

Cremation 30. Soil from surface of cremation. Cremation 33. Sample of soil from below chalk level northwest of cremation 33 square. Same as cremation 30. Cremation 33. South of northwest of cremation 33 square. Cremation 45. Sample of fill from cremation 45.

Method of analysis

The samples were analysed for iron and manganese by the method developed by the Norfolk Archaeological Society.

Cremation 10. This contained one human long-bone fragment. No further observations were possible.

Cremation 12. Bone preservation: moderate, most of the individual was present. Age: middle-aged adult, based on the endocranial sutural fusion. Weight: 469g.

Cremation 13. This contained ten fragments of probable human bone. No further observations were possible.

Cremation 19. This contained eleven fragments of probable human bone. No further observations were possible.

Near cremation 31. This contained two long-bone fragments which were not positively identified as human.

Cremation 32. This contained one human skull vault fragment, probably from an old adult, based on endocranial sutural fusion. No further observations were possible.

Cremation 33. This contained seventeen human bone fragments. No further observations were possible.

Cremation 34. This contained one human skull vault fragment. No further observations were possible.

Cremation 35. This contained five bone fragments which could not positively be identified as human.

Cremation 46. One long-bone fragment which could not positively be identified as human.

The phosphate samples, by David Gurney, Norfolk Archaeological Unit

The samples

Five samples were submitted for analysis. The details of the samples are as follows:

1. Cremation 30. Soil from centre of hole; body deposit.
2. Cremation 30. Soil from surround inside hole.
3. Cremation 33. Sample of cremation soil, 2in below chalk level northwest corner.
4. Cremation 33 square. Sample of soil under cremation. South of northwest corner.
5. Cremation 45. Sample of fill in northeast corner.

Method of analysis

The samples were analysed for inorganic phosphate using the method developed by the British Museum

Research Laboratory, based on the molybdenum blue method of Murphy and Riley 1962. For full details of this method see Craddock *et al* forthcoming.

The results

The following results of phosphate analysis were obtained:

Sample	mg P/100gm
1	35
2	34
3	67
4	67
5	25

Comment

The range of phosphate values in the five samples is 25–67 mg P/100gm. In the absence of further samples from which the 'background' P level could be assessed, it is not possible to determine whether or not these values represent significant enhancements. It is not inconceivable that even these apparently low values might be enhanced due to the presence of cremated bone.

Samples 1 and 2 have very similar values (35 and 34 mg), while the results from samples 3 and 4 were identical (67 mg). This suggests that there are no differences between the samples taken from the areas of the two cremations (cremations 30 and 33; samples 1 and 3 respectively) and the surrounding soils (respectively, samples 2 and 4).

Textiles, by Elisabeth Crowfoot

The identifiable textile remains from the Alton cemetery are small fragments on grave-goods of iron and bronze, in which most of the fibres have been replaced by metal oxides. A few surviving fibres were identified as probably flax (graves 7, 16, 37).

The spinning, wherever clear, is Z in both systems on all fragments examined. The weaves present are tabby (plain weave), four-shed twills, and tablet-weave. Of the tabby weaves, eleven recognisable examples are all medium grade. One, 27.6, has a scrap of simple unreinforced selvedge; another from the same grave, 27.3, shows a paired ?weft thread, perhaps a mistake or repair rather than a decorative feature such as the paired throws at regular intervals on a weave from Finglesham grave 203.

The twill weaves are all four-shed constructions. Seven, as far as can be seen from such small pieces, are simple 2/2 diagonal weaves, while one, 12.5, 6 (Fig 17), is a broken diamond weave of the most

Table 29. Alton Anglo-Saxon cemetery: textile catalogue. 'Replaced' is used to indicate 'fibres replaced by metal oxides'. The spinning direction of yarns is indicated by the letters Z and S, the probable warp thread being placed first. Overall measurements of the best fragments are given in cm, and weave counts in threads per cm, except where otherwise stated.

Catalogue Number	Object	Position on object	Fibre	Spin	Weave	Count	Measurement	Comments
7.3(M)	Buckle	On chape	? Flax	Z/Z	Tabby	6/6 on 5mm	2.2 × 0.8	Layers or folds; even spin
9.2(FJu)	Knife	Near edge	Replaced	Z/Z	Tabby	-	-	Traces
9.3.4	Purse mount, ring		Replaced	Z	-	-	-	Deteriorated
11.4(F)	Fe ring	On ring	Replaced	Z	Threads	-	-	Wound round ring
		Loose scrap	a) Replaced	Z/Z	2/2 twill	7/6 on 5mm	0.5 × 0.5	
11.5a	Fe buckle loop	On fragments	a) Replaced	Z/Z	2/2 twill	6/6 on 5 mm	0.6 × 0.7	On five pieces
		Tied round scrap	Replaced	Z	Threads	-	-	2, wound 3 times
11.5b	Fe buckle loop		b) Replaced	Z/Z	Tabby	10.8-9	2.5 × 1.1	Even spin, open weave
			7a) Replaced	Z/Z	?Twill	c 15/12-13	c 2.0 × 1.4	Fine threads
12.1(F)	Saucer brooch	Pin attachment	Replaced	Z	Threads	-	-	Round; ? bead string
		On pin	Replaced	Z/Z	?	-	-	Fine close weave, surface damaged
12.2	Saucer brooch	Pin attachment	Replaced	S, Z	Threads	-	-	Fine
12.5.6	Keys and knife	One side	a) Replaced	Z/Z	Broken diamond twill	17-18/16-17	1.4 × 2.5	(Fig. 17) Fine even spin
		Other side	b) Replaced	Z/Z 2/2	Twill	10-12/10	-	Deteriorated; traces leather lying above
14.3(F)	Fe pin	All along	a) Replaced	Z/Z 2/2	Twill	-	-	Scraps, surface poor
14.5	Fe knife	On blade	b) Replaced	Z/Z	?Tabby	-	-	Traces; leather scraps
16.1(M)	Fe sword	From hilt	?Flax	Z/Z	Tabby	16/13-14	1.3 × 1.1	Uneven spin, giving strong weft lines; weave loose, diagonal pull
23.1(F)	Saucer brooch R	On pin	a) Replaced	Z/Z, Sply	?Tablet	c 7 twists (on 5mm)	1.0 × 1.2	Fine weft end protruding from twists
23.2	Saucer brooch L	Pin attachment	Replaced	Z, Sply 2plyZ	?Plait	-	L c 2.5cm	Soft threads round, one crossing at end
23.10	Girdle hangers	One shaft	b) Replaced	Z/Z 2/2	Twill	8/6 on 5mm	-	Small areas all along
24.2(M?)	Fe buckle	On loop	Replaced	Z or S, Zply	-	-	-	Traces weave; leather
27.3(FJu)	Fe buckle	One side ring	Replaced	Z/Z	Tabby	6/7 on 5mm	1.5 × 0.7	Even spin, weave; one paired thread weft
27.6	Fe rings	Complete ring	Replaced	Z/Z	?Tabby	6/7 on 5mm	0.5 × 0.5	Simple selvage
		Another ring	Replaced	Zply	String	-	-	Fragments
29.1(Ju)	Fe knife	One side	Replaced	Z/Z	Tabby	10/10	3.3 × 1.0	Rather open weave
		Other side	Replaced	Z/Z	Tabby	6/5 on 5mm	0.5 × 0.5	Probably same weave
33.3(F)	Fe sharpener	Near end loop	a) Replaced	Z/Z	?Twill	6/6 on 5mm	0.6 × 0.7	Impressions
33.2	Fe loop		Replaced	Z/Z	?Twill	-	-	Damaged surface
33.5	Fe tab		b) Replaced	Z/Z	Tabby	12/8 (4 on 5mm)	1.8 × 2.0	Loose open weave, impressions
35.2(F)	Button brooch	Pin attachment	Replaced	Z	Threads	-	-	Coarse, ?bead thread
		At pin end	Replaced	Z/Z	?Twill	-	0.7 × 1.0	Fine, surface damaged
36.1(M)	Spearhead	On shaft	Replaced	-	Tabby	-	-	Tiny scraps, spin not clear
37.1(F)	Button brooch	Fibres only	?Flax	-	-	-	-	No textile preserved
37.6	Fe buckle	Pin	Replaced	Z/Z	2/2 twill	4/4 on 3mm	0.3 × 0.3	Tiny area clear; traces
40.1(M)	Spearhead	On blade	Replaced	?Z/Z	Tabby	c 4/4 on 5mm	0.5 × 0.5	Traces
		On socket	Replaced	Z/?	-	-	-	Weave, coarse threads
41.7b(F)	Fe bar	Two pieces	Replaced	-	-	-	-	Traces, ?leather
41.7c	Fe tweezers		a) Replaced	Z/Z	2/2 twill, ? pile	6/6 on 5mm 3-4 tufts per cm, rows 5mm apart	2.3 × 0.8	Uneven, loose weave; in places ?loops, ends broken threads (67)
41.7d	Fe fragments	On all pieces	7a) Replaced	Z/Z	2/2 twill	7/6 on 5mm	1.0 × 1.1	Open weave; one coarse S thread at one edge
41.9	Fe buckle plate	On edge strip	b) Replaced	Z/Z	Tabby	11/12 (6 5mm)	1.0 × 0.5	Loose weave
45.2b(M)	Shield	Fe from guard	Replaced	Z/Z	?	-	-	Coarse threads, weave
47.1(F)	Saucer brooch	From pin	Replaced	Z/Z	Tabby	c 7/6 on 3mm	0.5 × 0.8	Small areas
47.2	Saucer brooch	From pin	Replaced	Z, Sply	String	-	-	?Bead string
49.3(M)	Saucer brooch	From end of guard	Replaced	Z	-	-	-	Traces, traces



Catal

Dimensions

...were irregular in shape, a
...on the second line of ea
...length, width and depth
...The position of the skeleto
...with legs straight and arm
...on top of the femurs o
...position is noted. The
...in conventional sense.

(Figs 22 and 43). Male
... (2.29m x 0.84m
...left arm bent, right ar
...legs slightly
...a full set of teeth visible o
...a young man.

Remains of iron pommel
...upper guard. No radiu
...width 4.5cm. On edge, a
...of the body.

Long, narrow blade
...plus socket fragment
...possibly a rivet but
...L. 5.9cm.

Leaf-shaped blade,
...with rivet. L. 22cm.

well above the floor i
...behind the skull.

Convex dome, s
...with five knob-headed rivet
...and squashed in, before
...original height c7cm.

Two expanding end fragmen
...with rivet. L. 4.2cm, 4.6cm;

between femurs.

Chapter 5

Catalogue of Graves

Inhumations

The graves were irregular in shape, and the measurements given on the second line of each entry are the maximum length, width and depth as cut into the chalk. The position of the skeleton was, usually, supine with legs straight and arms fairly straight with hands on top of the femurs or on the pelvis. Any divergent position is noted. The term bronze is used in its conventional sense.

GRAVE 1 (Figs 22 and 43). Male, c9.5°.
7ft 6in × 2ft 9in (2.29m × 0.84m).

On right side, left arm bent, right arm straight, with hand in front of pelvis, legs slightly bent. Bones not available; a full set of teeth visible on a photograph suggests a young man.

1. *Sword*. Remains of iron pommel with curved top; trace of upper guard. No radiograph available. L 87.2cm, width 4.5cm. On edge, alongside and at the back of the body.

2. *Spearhead*. Long, narrow blade, L 34.6cm, width 2.4cm, plus *socket* fragment with one rivet, and a projection possibly a rivet but not extending across socket, L 5.9cm.

3. *Spearhead*. Leaf-shaped blade, angular join to split socket with rivet. L 22cm.

2 and 3 together well above the floor in the corner of the grave behind the skull.

4. a. *Shield boss*. Convex dome, spike top, narrow flange with five knob-headed rivets. The top was damaged, split and squashed in, before burial. Diameter 12.8cm, original height c7cm.

b. Two expanding end fragments of a *strap* grip, each with rivet. L 4.2cm, 4.6cm; width 2.2cm.

4a and b between femurs.

c, d. Two convex *iron disc-headed rivets* with traces of bronze on both sides. Diameter 2.7cm. Position not known.

5. *Bronze rectangular plate*. Fastened by four rivets to a back plate. Front decorated by a border of double dot stamps and another row in the middle. 1.7cm × 1cm, to hold thickness of material 1.5mm. In front of right femur.

6. *Knife*. Two fragments, blade L 12.8cm, tang L 6cm. Groove visible along back of knife, and X-ray shows a separate strip c3mm wide welded the length of the back. ?At hip near sword, or by left hand.

GRAVE 2 (Figs 7, 22, 23 and 43). Male, 62°.
8ft 5in × 2ft 8in × 1ft 6in (2.57m × 0.81m × 0.46m).

Skull right, right arm bent with hand in pelvis.

1. a. *Sword*. Gilt bronze strip border to front of scabbard mouth, six horizontal decorative ridges. Width 1cm. Fleece lining to scabbard. No radiograph available. L 90.8cm, width 4.6cm; tang 11.5cm. On edge, along left side of body.

b. Yellow translucent glass disc *bead* with oval perforation. Diameter 2.1cm.

c. Very light green translucent glass disc *bead* decorated with white trails, five circumference and a zigzag top and bottom. Diameter 2.7cm. One bead only shown on grave plan by the blade, c23cm from end of tang. Position of other bead not known.

2. *Spearhead*. Broad, corrugated blade incurved near tip, the lower plane on the right, split socket with rivet visible on radiograph. L 39.5cm. Right of skull.

3. a. *Spearhead*. Angular blade, split socket with one rivet. L 24.1cm.

b. *Ferrule*. Conical, L 9.6cm.

3a in top right corner of grave, 3b between the feet. 2 and 3a above floor level, 2 probably c10cm above and 3a c15cm above.

4. *Bronze-bound bucket* (plate IIb). Four vertical bands, two holding the handle and two intervening on opposite sides decorated with three bosses at intervals and borders of *repoussé* dots, fastened to the bucket by rivets and folded over to the inside at top and bottom. On one of these shorter bands there is additional decoration of a diagonal cross at the bottom. The two vertical handle bands are decorated only with three *repoussé* bosses and fold under the bottom of the bucket. At the top they are squared off above the rim and re-inforced by two additional bands matching a short vertical band inside. These are pierced by a rivet on which the handle swings. Near the top of one there is a scratched design. The handle consists of two layers of bronze, one thick and one thin, of which most of the thin upper layer is missing. A U-sectioned edging to the rim is fixed by the fold of two of the uprights and by two folded tabs, one near each handle upright. Fragmentary wood remains: yew, *Taxus* sp. Diameter top 13.5cm, diameter bottom 14.2–14.8cm, height 12.8cm. At top middle of grave.

5. a. *Shield boss*. Dome slightly convex with carination, small button top, wide flange with probably six disc-headed rivets. Squashed and damaged before burial. Diameter c16cm, height c8.5cm. Between the knees.

b. Fragmentary *strap grip*, L 13cm.

c. *Disc-headed rivet*, diameter 1.4cm.

d. *Rivet* with square rove. 1 cm × 1cm.

Positions of 5c and d not known.

6. *Bronze tweezers*. Decorated by three pairs of transverse lines, grooves on the looped end and nicked edges. L 13cm. Right chest. In private possession.

7. a. *Curving iron fragment*. ?Part of buckle loop. L 1.7cm.

b. *Flat iron band*, narrowing at one end and with two rivets. 3.5cm × 1.3cm.

c. *Flat iron band fragment* with two rivets. 2.5cm × 1.4cm.

d. End of ?bone and iron belt plate. ?Bone widening to D-section, riveted to iron plate, two

rivets visible on X-ray. 3.5cm × 1.8cm. Textile remains on both sides. Reconstruction Fig 7.

8. Two *iron shaft fragments*, circular in section:

a. Curving at one end, L 3cm.

b. Straight, L 2.7cm.

A long object shown on the grave plan (top left chest) may represent 7 or 8.

This grave also contained cremation 44 in a Roman pot.

GRAVE 3 (Figs 24 and 43). c108°.

7ft × c3ft (2.13m × 0.91m).

Part skull and lower leg fragments only, the rest of the bones being removed when grave 4 was dug across it nearly at right angles.

1. *Tall pedestal pot* (plate IIc). Double line neck decoration, seven shallow vertical bosses each bordered by double lines. Fabric 1. Height 17.7cm, diameter mouth 9.5cm, diameter foot 7.5cm. Left of skull.

GRAVE 4 (Figs 24 and 43). Male, c5°.

7ft × 3ft 3in (2.13m × 0.99m).

The grave cut across grave 3 nearly at right angles, destroying most of grave 3. Skull right, left arm slightly bent, away from body.

1. *Spearhead*. Lozenge blade, split socket with rivet hole, L 32.1cm.

2. *Small spear* or dart. Leaf-shaped blade with slight mid-rib. Split socket, rivet hole in decorative groove between two narrower grooves. L 14.3cm. 1 and 2 together, right of skull.

3. a. *Shield boss*. Convex dome, spike top, slight carination, narrow flange, five knob-headed rivets. Diameter 12.9cm, height 7cm.

b. *Strap grip*, widening at ends, L 11.8cm. Outside right elbow.

4. *Knife or seax*. Angled back, curved cutting edge; organic remains on tang. L 27.1cm, width 2.6cm.

5. *Knife* fragment. Organic remains on tang. L 8.9cm.

4 and 5 together, between left arm and body.

6. An *iron shield disc appliqué* (diameter 2.8cm) was kept associated with the pot 3.1, but may come from grave 4.

GRAVE 5. You
Most of the grave
leg bones being

GRAVE 6 (Fig
6ft 10in × 3ft ×
As there were
was thought lik
female c24–27.
femurs.

1. *Spearhead*.
rivet, probable
Traces of ash
20cm. To right
floor and slopi

2. *Knife*. Cutt
Radiograph sh
not wood, pos
point down.

In fill:

3. Five thick
ted carination,

One other she

GRAVE 7 (F
5ft 5in × 1ft
0.46m).

Skeleton tight
ide with left ar
so that right k

1. *Spearhead*
on the right.

right hand fac
in socket. L

2. *Knife*. Bo
right forearm

3. *Buckle*. I
plate fastened
borders and s
third crossing
forearm.

4. *Unbaked*
9mm sides. B

Charcoal patc

GRAVE 8 (F
2ft 3in × 1ft
Small fragmen
fragments.

No finds.

GRAVE 5. Young person or female, c41°. Most of the grave was under the bungalow, only the leg bones being visible.

GRAVE 6 (Figs 24 and 43). Male, c24-27, 84.5°. 6ft 10in × 3ft × 1ft 4in (2.08m × 0.91m × 0.41m). As there were no back teeth, an advanced age was thought likely by the excavator. Bone report: female c24-27. Skull to right, hands on top of femurs.

1. *Spearhead*. Angular, split socket with transverse rivet, probable inlaid ring on each right hand wing. Traces of ash remains, *Fraxinus* sp, in socket. L 20cm. To right and ahead of skull, 2in (5cm) above floor and sloping with point up.

2. *Knife*. Cutting edge curves to point, blade worn. Radiograph shows blade welded to back. On tang not wood, possibly horn. L 15.2cm. Left waist, point down.

In fill:

3. Five thick grey *sherds* (fabric 4), including faceted carination, at head 6in (15cm) deep.

One other *sherd* and *Samian* fragments.

GRAVE 7 (Figs 25 and 43). Male, c24-27, 355°. 5ft 5in × 1ft 6in × 1ft 6in (1.65m × 0.46m × 0.46m).

Skeleton tightly fitted into narrow grave. On right side with left arm slightly bent; both knees drawn up so that right knee was 1ft 2in (35.5cm) above floor.

1. *Spearhead*. Angular, stepped planes, the lower on the right. Probable traces of ring inlay on each right hand face. Remains of ashwood, *Fraxinus* sp, in socket. L 23.9cm. Lying on the face.

2. *Knife*. Both sides curve to point. L 22cm. Under right forearm.

3. *Buckle*. Iron loop and tongue, bronze double plate fastened by two rivets. Decorated by nicked borders and stamped dots in diagonal cross with a third crossing line. L 7.2cm. Mid-waist under left forearm.

4. *Unbaked clay cube* containing specks of chalk. 9mm sides. Beside top of skull.

Charcoal patch under right ribs.

GRAVE 8 (Fig 43). New-born baby, 88°. 2ft 3in × 1ft × 6in (0.69m × 0.31m × 0.15m). Small fragments of skull at west end, and other bone fragments.

No finds.

GRAVE 9 (Figs 25 and 43). Female juvenile, aged 7, 85.5°.

4ft 4in × 2ft 3in × 1ft 7in (1.32m × 0.69m × 0.48m).

Skull right, hands on top of femurs.

1. *Beads*:

- Glass
- 2 disc, rust red
 - 3 disc, yellow
 - 1 disc, olive green translucent
 - 1 disc, dark olive green translucent
 - 1 disc, dark green
 - 1 disc, white
 - 3 disc, black
 - 1 annular, blue translucent
 - 20 annular, dark blue translucent
 - 1 annular, dark blue translucent (double)
 - 1 melon, black
 - 1 disc, light green translucent, rust red swirls

Under left hand and some under pelvis.

2. *Knife*. Narrow blade, part of tang missing, L 12.3cm.

3. *Iron purse mount*. Fragment, remains of buckle in middle, L 6.8cm.

4. *Iron ring*, diameter 4cm. This may have been a ring brooch or buckle as it appeared to have a cross pin when excavated.

2-4 together at left waist; 2 and 3 lying parallel to each other, on top of 4.

GRAVE 10. c95.5°.

The foot of a west-east grave was located, 1ft 9in (0.53m) wide, 1ft 9in (0.53m) surviving length, depth 1ft (0.31m).

The end of a leg and toe bones were visible. Most was in the next garden and permission to excavate was refused.

GRAVE 11 (Figs 25 and 44). Female, 16-18, 95.5°. 7ft × 2ft 3in × 1ft 10in (2.13m × 0.69m × 0.56m). Skull right, right hand beside femur, left hand on top of objects on top of left femur.

1. *Iron pin* with a flat, rolled head. L 12 cm. At neck.

2. *Knife*. Straight back, curved blade, probably horn on tang. L 15cm.

3. *Perforated bronze coin*. Regular Antoninianus cAD 275-93 (identified by P E Curnow, HBMCE).

4. *Iron ring*, ends overlapping. Diameter 3cm.

5. a. Part *oval iron loop*, diameter 4cm.

b. Iron fragments of *oval buckle loop*, tongue and plate. L 4.3cm.

6. Thin *bronze disc* with central perforation. Diameter 3.7cm.

7. *Bronze Roman coin*, perforated. Maximian (Galerius) Follis AD 303-5 (identified by P E Currow, HBMCE).

2-7 were all under the left hand, partly on top of left femur and partly inside left femur.

In fill:

8. Flat *chalk disc*. Diameter 3.2cm, 0.8cm thick. Left of skull.

One Roman *sherd* also found in grave fill.

GRAVE 12 (Figs 26 and 44). Female, probably 50 or older, 78.5°.

An old man probably 50 or more according to the bone report. Lower jaw *in situ* slightly left; the skull fallen backwards and to left.

1. Gilt *bronze saucer brooch* (plate Id). Central knob in a beaded ring surrounded by a zone of seven spirals, each with a beaded spur and an outer, coarsely beaded border. A double lug with remains of iron spring and stub of pin catch at the back with separate pin catch mend. Diameter 4.5cm.

2. Gilt *bronze saucer brooch*, pair to 1. Pin catch, double lug and remains of iron pin at back. Diameter 4.5cm.

3. *Folded bronze conical tube*. Remains of iron suspension loop through perforation at narrower end. Probable traces of wood round an iron core at the wider end. L 8.1cm. Mid-chest with 1 to right and 2 to left.

4. *Beads*:

- i. Amber
 - a. 2 small, roughly-shaped
 - b. 1 wedge-shaped
- Glass
 - c. 2 cylinder, black coiled
 - d. 1 cylinder, blue translucent drawn
 - e. 1 globular, colourless drawn

On chest.

- ii. Amber 1 wedge-shaped
- iii. Amber a. 5 wedge-shaped
- Crystal b. 1 disc

At left waist.

5. *Iron ring* holding two *key* fragments looped over, and one *iron riveted tab*. Diameter ring 6cm.

6. *Knife*. Both sides curve to point, probably horn on tang. L 12cm.

5 and 6 together outside left hand, the ring standing vertically alongside the middle of the knife and the keys extending horizontally and downwards under the leg.

7. *Iron pin*. End curled over to form head. L 9.9cm. Between right humerus and ribs.

In fill: one *sherd*, fabric 3.

GRAVE 13 (Fig 44). Female, c20, 113°. 6ft 3in × 3ft × 1ft 7in (1.91m × 0.91m × 0.48m). Skull looking down right; right hand on top femur, left hand beside pelvis, left knee bent outwards.

No finds.

GRAVE 14 (Figs 26, 27 and 44). Female, c23, 294°. 5ft 9in × 2ft 10in × 1ft 6in (1.75m × 0.86m × 0.46m).

The head of the grave was very near the hedge which must have protected it from disturbance by ploughing, for the head was covered by chalk lumps c1ft (0.31m) high. Upper part of body bent to left, skull slightly right, left arm slightly bent with hand in pelvis, left foot placed over right foot.

1. *Bronze quoit brooch* (plate Ij). Tinned on top surface, thin sheet, slightly shelving, inner and outer border of rough notching to imitate beading; pin looped through perforation. Diameter 3.6cm.

2. *Bronze quoit brooch* (plate Ik). Pair to 1, but beading imitation more successful. Diameter 3.6cm.

3. *Iron pin*. Slightly curved, shepherd's crook head. L 10.7cm.

4. *Glass bottle neck fragment*, blue-green, Roman. L 3cm. 1 and 2 were lying near each other, 1 above 2, face downwards on the iron pin on top of the breast bone. 4 was nearby.

5. *Knife*. Both edges curve to point, probably horn on tang. L 13.5cm. Lying horizontally at waist, point to left.

6. Black burnished *carinated bowl*. Fabric 1, height 12cm, maximum diameter 14cm.

In fill: a number of *sherds*, mostly at a high level at foot and south side of grave.

7. a. One thick *base fragment*, fabric 5, left of neck.

b. One flat-topped rim *sherd*, fabric 3.

GRAVE 15 (Fig 44). Infant, 2, 182°. 3ft 9in × 2ft 6in × 1ft 7in (1.14m × 0.76m × 0.48m).

This grave was under a brick retaining wall, but complete excavation was possible. Cremation 38 at right foot of grave is later, and was dug partly into

the grave fill. Skull and both legs slightly

No finds.

GRAVE 16 (Figs 28, 355°. 7ft 10in × 4ft 6in × 0.97m).

The grave was cremation 46; the wall, but the inner selectively hollow spearheads could right side, some plates missing, 4 body, left hand in

1. a, b. *Silver* sides and hole a grip leaving space bottom for guard and two layers pommel. Possibility under side of lower blade. X-ray shows alternately straight L 9.2cm, width pommel on left

2. *Silver gilt* piece). The lower triangles on the behind, with no triangles. Six rows (plus) are inserted. The tongue is silver white shell rim surrounding a circular shaped cells on ground. The triangle has two lateral rows of coarse beaded inset plate. Five lower frame to a chip-carved head with curved. Five rows of two the triangle. A panel (Fig the panel (Fig deep, flat-topped of beaded filigree two each side. gilt, fluted band border, four rivets the shorter band plate, but the o washer appears. There must be bands on the be riveted on to the must have been

the grave fill. Skull to left, both arms slightly bent and both legs slightly flexed to right.

No finds.

GRAVE 16 (Figs 5, 27, 28 and 44; plate III). Male, c.28, 355°. 7ft 10in × 4ft 6in × 3ft 2in (2.39m × 1.37m × 0.97m).

The grave was roughly cut and deep, disturbing cremation 46; the feet rested on the incline of the wall, but the incline at the head end had been selectively hollowed out to the floor so that the spearheads could rest on a flat surface. Skeleton on right side, some bones well preserved, others completely missing, *eg* right hand. Right arm in front of body, left hand in pelvis, both legs inclined to right.

1. a, b. *Sword*. Bronze pommel with incurved sides and hole at top. Bronze sleeve at each end of grip leaving space 1cm at top end and 0.9cm at bottom for guards. Organic material covering grip, and two layers of replaced textile fragments on pommel. Possible remains of thin iron sheet on under side of lower guard. Remains of scabbard on blade. X-ray shows four rows of pattern-welding, alternately straight and diagonal lines, double layer. L 92cm, width 5cm. Across lower part of body, pommel on left elbow and point by right knee.

2. *Silver gilt buckle* with triangular plate (Frontispiece). The loop is decorated with chip-carved triangles on the front, and nielloed diagonal lines behind, with niello lines between and bordering the triangles. Six rows of twisted gold filigree (pseudo-plait) are inserted in two recessed panels in the top. The tongue is shaped, with a shield base inset with a white shell ring and four triangular *cloisons* surrounding a circular garnet. Shaky straight and step-shaped cells contain garnets with a gold trellis background. The triangular plate folds over the loop and has two lateral and a terminal dome-headed rivet. A row of coarse beaded filigree borders the whole gold inset plate. Five rows of finer twisted filigree form a lower frame to the shield, and terminate each end in a chip-carved shape (Fig 5d). At each side a bird's head with curving beak and garnet body (Fig 5e). Five rows of twisted filigree remain in one border of the triangle. A pattern of two interlacing animals fills the panel (Fig 5a-c), the background gold sheet in deep, flat-topped *repoussé*, surmounted by three rows of beaded filigree, the middle one coarser than the two each side. The plate is defective and two silver-gilt, fluted bands are fastened across the plate and border, four rivets in the longer band and three in the shorter band. The middle rivets pierce the back plate, but the outer rivets are free, although a small washer appears on the rivets of the shorter band. There must either have been two corresponding bands on the back, now missing, or the bands were riveted on to the leather belt. These fluted bands must have been a second mend, and the gilding is in

much better condition than that of the rest of the buckle.

The back of the hollow, raised borders of the triangle shows a pair of empty rivet holes near the position of the longer fluted band, no doubt an earlier mend. Just below the hole on one side, there is a rivet stump in the raised border, and a corresponding hole in the back plate. Near the other band, on the same side, there is a rivet hole in the border and a corresponding hole in the back plate. Each of the three rivets under the dome heads has a small washer. All of the front of the silver parts of the buckle are gilded except the nielloed back half of the loop. The filigree and back plate in the panel and the filigree at the base of the tongue are red gold in colour. The filigree on the loop and the borders is a lighter yellow. L 10.7cm. Under left forearm and sword.

3. *Triangular gilt bronze strap mount* with a slot and corresponding back plate fastened by three rivets. Decoration by three pairs of ring stamps and dot stamps near one rivet. L 2.3cm. Thickness of material accommodated nearly 3mm. Under the buckle.

4. *Knife*. Back curving near tip. Defective each end, L 11.1cm. Under left forearm.

5. *Spearhead*. Lozenge-shaped, stepped blade, right side depressed, split socket with two rivets and two sets of decorative grooves. L 26.4cm.

6. *Spearhead*. Angled blade, split socket. Socket is corroded but radiograph shows six equally-spaced denser lines across, which probably indicate decoration. L 20.4cm.

5 on top of 6 together behind skull near the corner of the grave.

7. a. *Shield boss*. Convex cone, knob top, vertical waist, narrow flange with five knob-headed rivets. Diameter 13.4cm, height 11.2cm.

b. *Narrow strap grip*, widening at ends, one end defective, L 12.3cm. In line with c, d and e.

c-e. Three *iron disc-headed rivets*, diameter 3.1cm (c now lost).

f. *Small dome-headed iron rivet* to pierce shield, 0.8cm thick.

g. *Iron buckle loop* and tongue fragment, original width c.2.4cm.

Items a and b on top of skull; c, d, together to right; e to left; f left of skull; g right of skull. All c.7-8cm above grave floor level.

8. *Silver rim*. U-section, with four four-fluted bands each fastened by a rivet through wood remains

(beech, *Fagus* sp). c2.5mm thick. Diameter 6.5cm. Under boss.

9. *Silver rim* as 8, but broken and one band missing. About 4in (10cm) above grave floor level and horizontal.

10. a. *Iron clamp* bent at right angles, one end defective. L 4.5cm, width 0.8cm.

b. *Iron clamp*. Ends bent at right angles. L 4.6cm, width 0.9cm.

c. *Iron clamp*. Ends bent at right angles. L 3.8cm.

d. *Iron clamp*. Ends bent at right angles. L 4.2cm.

Transverse wood grain inside b. Clamped over ?wooden object 1.4cm thick. Together outside left arm, 10cm above grave floor.

11. *Nail*. Square section, flattened head. L 5.4cm. Right of right knee.

12. *Nail*. Two fragments, L 1.4cm and 3.8cm. On right tibia.

In fill were two *sherds*, one with rosette stamps, and two fragments of burnt bone. Fabric matches base fragments of cremation 46 beside grave, that is, cremation 46 was disturbed by the digging of grave 16. One *sherd*, fragment of Roman triple-fluted strap handle.

GRAVE 17 (Figs 28 and 45). Juvenile, 6½–7, 94.5°. 5ft 6in × 1ft 10in × 3in (1.68m × 0.56m × 0.08m). Skull pillowed forward, both arms slightly bent.

1. *Knife*. L 11.8cm. Fragments, outline from index card sketch.

2. *Iron rivet*. L 1.5cm.

1 and 2 at left waist.

3. *Iron ring* fragments. ?Buckle, diameter 2.3cm. Top right chest.

GRAVE 18. 16° or 196°. 2ft 4in × 2ft × 1ft (0.71m × 0.61m × 0.31m). Possibly an infant's grave, but contained no bones.

In fill were eight small *sherds* with base fragment (fabric 1), charcoal and a fragment of *ironstone*.

GRAVE 19 (Figs 28 and 45). Female infant, aged 4, 348.5°.

4ft 9in × 2ft × 1ft 6in (1.45m × 0.61m × 0.46m). Grave cuts cremation 27, rim and some *sherds* in fill.

Skull crushed and one fragment on right tibia, probably damage by ploughing. Left arm and legs slightly bent.

1. *Beads*:

i. Glass. 1 disc, white, blue translucent zig-zag trail. At neck.

ii. Amber a. 2 roughly-shaped (not illustrated, 1 lost).

Glass b. 14 globular, yellow.

Scattered over and around the body.

2. *Knife*. Both sides curve to point, probably horn on tang. L 12.6cm. At left chest.

In fill:

3. One *rim sherd*, black burnished, three horizontal lines, fabric 1.

Rim and *sherds* of cremation 27 pot.

GRAVE 20 (Fig 45). Old female, 50 or older, 197°. 6ft 3in × 2ft 1in × 1ft 2in (1.91m × 0.63m × 0.36m).

Topsoil protected by proximity to hedge. Cremation 31 was above the head of the grave in a rectangular hollow cut 4in (10cm) into the chalk, that is, later than the grave. Skull to right, right arm bent and both hands together at left pelvis, right foot on top of left foot.

No finds.

In fill were three small dissimilar Roman *sherds* (that is, not of cremation 31), and a fragment of *ironstone*.

GRAVE 21 (Figs 28 and 45). Old female, 50 or older, 347°.

6ft 3in × 2ft 3in × 8in (1.91m × 0.69m × 0.20m). Body on right side, right hand under chin, left arm bent with hand mid-waist; both legs bent with left knee on top of right femur.

1. *Knife*. Both sides curving to point. Radiograph shows line of welding between back and blade. Probably horn on tang. L 13cm. Point down, beside right pelvis.

Patch of charcoal over left side of pelvis.

In fill were two Roman *sherds*.

GRAVE 22 (Fig 45). Male, c25, c72°. c2ft+ × 2ft 10in × 1ft (c0.61m+ × 0.86m × 0.31m).

Skull right, showing sword cut. Top part of chest only visible, the rest of the grave remains unexcavated in next garden. No finds.

GRAVE 23 (Figs 18, 29 and 45). Female, c35, 12°. 6ft 1in × 3ft × 1ft 6in (1.85m × 0.91m × 0.46m). Cremation 32 at the head of the grave was cut in half when the grave was dug. Skull left, both arms slightly bent with hands beside the femurs, left foot on top of right foot.

1. *Gilt bronze saucer brooch* (plate 1e). Boss and double ring centre surrounded by seven limbs, leg, claw and double arc at top; outer border of double row of ring stamps. Spring holder and pin catch at back; fragment of pin. Brooch mended with patch attached by two rivets. Diameter 4.9cm. On right shoulder.

2. *Saucer brooch*. Pair to 1. Diameter 4.8cm. On back, three-twist cord visible, probably for holding beads. On left shoulder.

3. *Bronze rectangle*. Damaged, but three corner perforations remaining. 2.2cm × 1.9cm. Near 1.

4. *Beads:*

- i. Amber
 - a. 15 wedge-shaped
 - b. 20 flat
 - c. 1 large flat
 - d. 1 short cylinder

- Glass
 - e. 1 disc white, dark blue translucent crossing trails and rust red dots
 - f. 2 disc black, scattered rust red and white dots

Amber beads from right neck to inside right elbow, the three polychrome beads between the two brooches.

ii. Perforated *ironstone nodule*. Identified by Dr Chris Hill, Palaeontology Dept, British Museum (Natural History). On upper jaw.

5. *Iron pin*. Turned over at one end to form head. L 10.7cm. Across top chest.

6. *Iron buckle*. Loop and tongue with double plate, L 3.8cm. In pelvis.

7. *Knife*. Probably horn on tang. L 9.6cm.

8. *Bronze strap end*. Rounded tip, cambered edges, flat disc-headed rivet in square end, separate thin back plate broken. Line decoration on front retains gilding. L 4.2cm.

9. a. *Oval iron loop*, diameter 5.7cm.

b. *Iron ring*, diameter 3.5cm, holding an open-ended *iron loop*, a *bronze strip ring*, a *strip iron ring* and an *iron loop*.

c. A separate *iron ring*, diameter 4.2cm.

d. Two *iron shafts* under the open-ended iron loop (lost, not illustrated).

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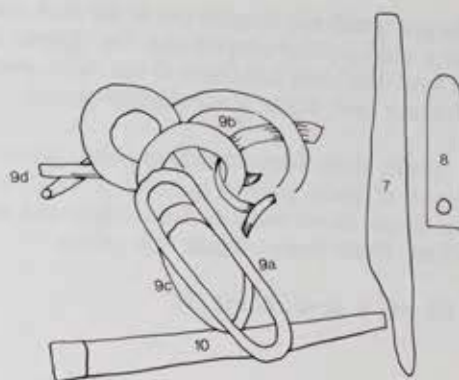


Fig 18. Alton Anglo-Saxon cemetery: finds *in situ* in Grave 23. Scale 1:2.

10. *Iron ?girdle-hanger*. One end turned over in ring, the other double, broken at end. L 8.9cm.

7-10 together at left waist.

In fill were a charcoal fragment and decorated *sherds* from cremation 32.

GRAVE 24 (Figs 30 and 45). Youth, probably male, c15, 19°.

6ft 2in × 2ft 5in × 1ft 2in (1.88m × 0.74m × 0.36m).

Skull tilted left, left arm slightly bent with hand in pelvis.

1. *Knife*. Cutting edge curves to point, probably horn on tang. L 18.5cm. Under left forearm.

2. *Iron buckle*. Loop and tongue, diameter 1.9cm. On lowest vertebra.

In fill:

3. a. Everted *rim*, two horizontal lines, fabric 3.

b. One *sherd*, fabric 2 (not illustrated).

c. One animal *tooth*, upper right M1 of sheep or goat, *Ovis* or *Capra* sp.

One Roman *sherd* and charcoal.

GRAVE 25 (Fig 45). Old female, over 45, 107.5°.

6ft × 2ft 3in × 10in (1.83m × 0.69m × 0.25m).

It was not possible to excavate about 2in (5cm) at the foot of the grave in the next garden. Skull tilted left, damaged as it projected slightly above chalk level. Right forearm across body. No finds.

In fill: one *tile* fragment.

GRAVE 26 (Figs 30 and 46). Male, 16-19, 113.5°. 7ft 9in × 3ft × 1ft 2in (2.36m × 0.91m × 0.36m).

The grave wall was roughly cut at the foot, and there was a semi-circular-shaped slot 5 in (13cm) deep at the foot. The skull had fallen to the right, away from the lower jaw. Right knee slightly flexed.

1. *Knife*. Both sides curving to point, groove along one side of blade, parallel to back; probably horn on tang. X-ray shows weld between blade and back. L 16.5cm. Point down, inside left radius.

In fill was a *sherd*, fabric 3.

GRAVE 27 (Figs 19, 30, 31 and 46; plate IVa). Female juvenile, c10, 190.5°. 5ft 10in × 1ft 11in × 10in (1.78m × 0.58m × 0.25m).

On left side, feet together, knees slightly flexed, right arm bent, left arm rising above chalk level; head had been pillowed high.

1. *Beads*:

- Amber a. 13 small, roughly-shaped, and fragments
b. 5 roughly-shaped
Glass c. 1 melon, blue, translucent

Scattered above body and behind skull, mostly at depths of 2–3in (5–8cm), but some at 7in (17.8cm) behind skull.

2. *Bronze toilet set*. Two pins and spoon, all perforated at end for suspension on bronze ring. Pins L 12.9cm, spoon L 7cm. On knees.

3. *Iron buckle loop* and tongue. Bronze plate doubled and fastened with two rivets, decorated with lines of *repoussé* dots. L 5.2cm. At front waist.

4. *Bronze mount*. Strip, wide at one end and narrow at the other, with a decorative groove along each edge. Curved rod extension at the wider end and two lugs at the back of the other end. L 6.7cm. Roman scabbard mount. At the back of the ribs.

5. *Knife*. Angled back, curved blade L 15cm. Lying horizontally at right elbow with point 4in (10cm) above floor and slanting down.

6. *Three iron rings*:

- a. Diameter 5cm;
b. Diameter 3.6cm;
c. Diameter 2.8cm.
d. Key shaft with rolled end, L c9cm.

7. *Spindle whorl*. Thin red pottery disc, perforated. Diameter 3.3cm. 6 and 7 at back of pelvis, by right elbow.

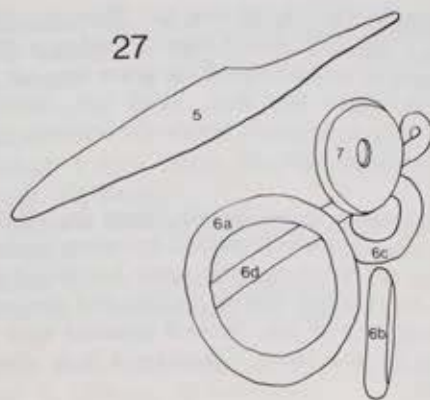


Fig 19. Alton Anglo-Saxon cemetery: finds *in situ* in Grave 27. Scale 1:2.

8. *Bronze-bound bucket* (plate IIa). Four vertical bands (one missing) with *repoussé* dot borders run from the bottom of the bucket about half-way up the wall. A crudely-cut band tapering at the bottom is riveted to the wood above each, and two of these project beyond the rim to provide a perforation to accommodate the hooks of the iron handle, which is flattened in the horizontal plane at the top. There are three hoops, the edge of the top one protected by a folded band rim. This rim was secured at six points by a band folded and riveted together. The decorated bands were originally fixed by dome-headed rivets. Diameter top 18.5cm; insufficient remains of the two lower bands for certainty regarding the lower diameter. Fragmentary wood remains, soft wood, probably yew, *Taxus* sp. Height 16.1cm. In the middle of the head of the grave.

9. *Bone pin*. Spatulate, perforated head; incomplete, L 8.8cm.

10. *Iron nail*. Disc head, square shank, L 3.5cm.

11. Two spherical *pebbles*, one buff (a), one black (b); both diameter 2.1cm.

9–11 inside bucket. *Animal bone*, distal/mid shaft of right humerus of sheep or goat, *Ovis* or *Capra* sp, on top of bucket.

12. One *animal tooth*. Upper right DP4 of sheep or goat, to left of bucket.

13. One *animal tooth*. Lower right M3 of sheep or goat, in fill over legs.

In fill was one *sherd* (fabric 3) and two other small *sherds*.

GRAVE 28 (Fig 46). Infant, c18 months, 120.5°. 3ft 9in × 2ft × 10.5in (1.14m × 0.61m × 0.26m). Flattened skull half left; legs straight, slanting to right. No finds.

GRAVE 29 (Figs 31 and 32). 6ft 6in × 2ft × 10in (2.0m × 0.61m × 0.25m). Skull right and flattened; right arm straight and to right.

1. *Knife*. Both sides curving to point, groove along one side of blade, parallel to back; probably horn on tang, L 10.2cm.

Tile fragments left of body.

GRAVE 30 (Figs 31 and 32). 5ft 9in × 2ft 6in × 10in (1.80m × 0.76m × 0.25m). Skeleton partly destroyed; skull smashed; left hand in pelvis.

1. *Knife*. Both sides curving to point, groove along one side of blade, parallel to back; probably horn on tang, L 10.2cm.

2. *Bronze ring*. Teardrop-shaped, with a narrow groove, L 2.5cm.

3. *Bronze fragments*. Two and three outside ribs.

4. *Iron buckle fragment*. Diameter 3cm. Under head.

In fill were four *sherds*.

GRAVE 31 (Fig 31). 3ft 2in × 1ft 4in (0.97m × 0.43m). Remains of skull, no finds.

GRAVE 32 (Fig 31). 6ft 6in × 2ft 2in (2.0m × 0.66m). Skull down to left; right arm on top of left femur. No finds.

In fill were two *sherds*.

GRAVE 33 (Figs 31 and 32). 6ft 2in × 2ft 2in (1.88m × 0.66m). Skull right and slightly bent.

1. *Knife*. Both sides curving to point, groove along one side of blade, parallel to back; probably horn on tang, L 10.2cm.

2. *Iron loop*. L 15.5cm.

3. *Iron sharpened loop*. L 15.5cm.

GRAVE 29 (Figs 31 and 46) Juvenile, 7-8, 116°. 4ft 6in × 2ft × 10in (1.37m × 0.61m × 0.25m). Skull right and flattened. Left arm slightly bent, legs straight and to right.

1. *Knife*. Both sides curve to point, probably horn on tang, L 10.2cm. Under right forearm.

Tile fragments left of skull.

GRAVE 30 (Figs 31 and 46). Robust male, 25-30, 86.5°. 5ft 9in × 2ft 6in × 2in (1.75m × 0.76m × 0.05m). Skeleton partly destroyed because of shallowness of grave: skull smashed, right arm missing, fingers of left hand in pelvis.

1. *Knife*. Both edges curve, L 12.5cm. Under left ribs.

2. *Bronze ring*. Terret or buckle, circular in section and with a narrower rimmed section. Diameter 2.5cm.

3. *Bronze fragments*, including rim of vessel L 0.4cm. 2 and 3 outside right pelvis.

4. *Iron buckle fragments*. Loop and tongue diameter 3cm. Under pelvis near 1.

In fill were four small Roman *sherds*.

GRAVE 31 (Fig 46). Juvenile, c4, 173.5°. 3ft 2in × 1ft 4in × 2in (0.97m × 0.41m × 0.05m). Remains of skull, teeth and legs only. No finds.

GRAVE 32 (Fig 46). Male, c18, 25°. 6ft 6in × 2ft 2in × 7in (1.98m × 0.66m × 0.18m). Skull down to left, right arm across body, left hand on top of left femur. No finds.

In fill were two small Roman *sherds*, red specks.

GRAVE 33 (Figs 20, 31, 32 and 46). Female, 50 or older, 27.5°. 6ft 2in × 2ft 2in × 2in (1.88m × 0.66m × 0.05m). Skull right and torso inclined to right, both arms slightly bent.

1. *Knife*. Both edges curve, L 13.2cm. Point up on left pelvis.

2. *Iron loop*, L 9.5cm.

3. *Iron sharpener* with end narrowed and turning in a loop. L 15.5cm.

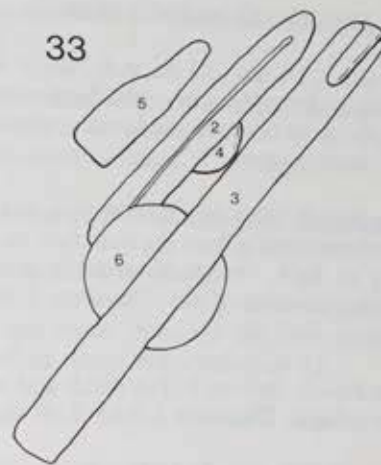


Fig 20. Alton Anglo-Saxon cemetery: finds *in situ* in Grave 33. Scale 1:2.

4. *Iron disc*. One side convex, diameter 2.5cm.

5. *Iron tab* with two perforations and hooked end, L 4.2cm.

6. *Bronze disc* decorated with *repoussé* dot border and cross. Raised centre with perforation containing a strand of spun threads. Diameter 3.7cm.

2-6 under left pelvis.

7. *Iron buckle loop and tongue*. Loop flattens and widens in middle: bronze double plate irregularly shaped, a re-used piece. Nicked decoration on end. One iron rivet. L 6cm. Right waist.

8. *Beads*:

- Amber a. 3 small, roughly-shaped, and fragment
- Glass b. 1 melon dark blue translucent

Right shoulder.

GRAVE 34 (Figs 32 and 46). Male, 20, 30°. 6ft 6in × 3ft 3in × 1ft 2in (1.98m × 0.99m × 0.36m). Skull down, to left. Body laid diagonally in grave.

1. *Spearhead*. Angular blade, probable traces of inlaid ring on each right hand side, split socket, stepped section. Remains of hazel wood, *Corylus* sp, in socket. L 22.5cm. Right of skull.

2. *Knife*. Slender, possibly horn on tang. L 11.5cm. Under right elbow.

3. *Bronze buckle and plate*. Square loop, notched decoration, tongue with animal head tip, long double plate with rivet hole at each end, one retaining iron rivet; ring-and-dot decoration. L 7cm. Lost, illustrated from index card sketch. Mid-waist.

GRAVE 35 (Figs 32 and 47). Female, c30-35, 106.5°.

7ft × 2ft 6in × 1ft 8in (2.13m × 0.76m × 0.51m). Skull down to left. Most of right fingers are some way from the wrist between the femurs, possibly due to animal disturbance.

1. *Button brooch* (plate Ig). Gilt bronze, mask with curling eyebrows and a bent leg and claw each side. Spring lug at back, traces of separate mend, pin catch missing; remains of pin. Diameter 2.7cm. On right chest.

2. *Button brooch*. Pair to 1. Pin catch and remains of iron pin at back. Diameter 2.7cm. Left shoulder.

Angle of pins on 1 and 2 c180°.

3. *Beads*:

- Amber a. 1 disc
b. 1 wedge-shaped
c. 2 flat
Glass d. 2 annular dark blue translucent

Below left brooch, 2.

4. *Gilt bronze pin* (plate II). Biconical head, top surface divided into five sections by rows of dots and a ring in each section, dot decoration on under side of head, moulding at top part of stem. L 9.8cm. Mid-chest.

5. One arm of *tweezers*. U-shaped loop on pivoting pin at top; moulding, line and stamped triangle border decoration. L 7.2cm.

6. *Iron loop fragment*, L 2.5cm.

7. *Knife*. Slender, both sides curve, probably horn on tang. L 13cm.

5-7 under sacrum.

GRAVE 36 (Figs 33 and 47). Male, c35-40, 22.5°. 6ft 3in × 2ft 3in × 7in (1.91m × 0.69m × 0.18m). Skull down, slightly right, right hand in pelvis.

1. *Spearhead*. Angular, split socket. Probably willow or poplar, *Salix* sp or *Populus* sp, in socket. L 18.7cm. Slanting, with point up, to right of skull.

2. *Knife*. Angled back, faint groove along back, curved cutting edge, L 11.7cm. Inside left humerus, point up.

GRAVE 37 (Figs 33 and 47). Young female, c16, 97°.

6ft 8in × 2ft 7in × 10in (2.03m × 0.79m × 0.25m). Skull right, appears to have been displaced to a position on the right shoulder. Left arm across body, right arm slightly bent, both legs slanting right. Patch of charcoal at edge of grave beside right leg.

1. *Gilt bronze button brooch* (plate Ih). Reddish gilding, mask design with broad grin and tongue protruding. Iron pin at back, spring at top and catch below, that is, at 180°. Bast fibres, flax on the back. Diameter 1.7cm. Face down on left shoulder.

2. *Gilt bronze button brooch* (plate Ii). Yellowish gilding, half mask design, spring holder at top and catch below. Remains of iron pin, angle 180°. Diameter 1.7cm. Under lower jaw.

3. *Two bronze pins* on a knotted ring. Pins cut from bronze strip, with perforated, diamond-shaped heads. L 8.7cm and 7.4cm; diameter ring 1.7cm. Mid-chest.

4. *Beads*:

- Amber a. 7 wedge-shaped
b. 3 flat
c. 5 biconical
Glass d. 1 disc, colourless, decomposed (not illustrated)
e. 18 annular brown translucent
f. 1 annular brown translucent (double)
g. 7 annular blue translucent
h. 7 annular dark blue translucent
i. 2 disc white, dark blue translucent crossing trails and dots

Along right side of body, from chest to knee.

5. *Knife*. Both edges curve, double groove along back, blade welded to back, probably horn on tang. L 9cm.

6. *Iron buckle loop and tongue*. Square plate with three rivets. L 3.9cm.

5 and 6, mid-pelvis.

7. *Square iron fragment*, L 1.6cm. Below left wrist.

GRAVE 38. 114.5° or 294.5°.

2ft 6in × 1ft 6in × 3in (0.76m × 0.46m × 0.08m). No bones.

In fill was one *sherd*, fabric 3.

GRAVE 39 (Figs 33 and 47). Old female, probably over 50, c27°.

6ft 6in+ × 2ft 4in+ × ? (1.98m+ × 0.71m+ × ?). Half under the next garden not excavated. Bone report: old male, probably over 50. Skull left, left arm slightly bent, right arm and both legs had to be left *in situ*.

1. *Beads*:

- Amber a. 2 small roughly-shaped
b. 1 roughly-shaped (not illustrated)
Glass c. 1 disc, rust red
d. 1 disc, yellow (double)
e. 1 disc, yellow translucent

- f. 1 4-sided, cylinder rust red
- g. 1 disc, olive green translucent, yellow swirls and zig-zag trail
- h. 1 cylinder, rust red, yellow combed trails, broken
- i. 1 disc, white, blue translucent crossing trails
- j. 1 disc, white, blue translucent crossing trails (double)
- k. 1 barrel, rust red, yellow crossing trails and dots
- l. 2 barrel, rust red, crossing trails and dots; missing
- m. 1 disc, light blue translucent, rust red rings in white dots
- n. 1 disc, white, blue translucent dots
- o. 1 globular, dark blue translucent, white dots

Left shoulder and neck.

2. *Iron buckle loop and tongue*, diameter 2.5cm. Right pelvis.

3. *Knife*. ?Curved back, straight cutting edge, cutting edge welded to back; probably horn on tang. L 15.5cm. Beside top left femur.

GRAVE 40 (Figs 34 and 47). Old male, 10°. 7ft x 2ft 6in x 7in (2.13m x 0.76m x 0.18m). Skull left, damaged, lower jaw upside down on left shoulder, right hand on top right femur.

1. *Spear*. Long, slender blade, diamond-shaped section, split socket containing remains of ash,

Fraxinus sp, from mature timber. L 33.5cm. Right of skull.

2. *Knife*. Steeply-curved back, wood traces on blade, willow or poplar, *Salix* sp or *Populus* sp, probably horn on tang. L 10.7cm.

3. *Iron buckle loop and tongue*, diameter 2cm.

2 and 3 inside left elbow.

Sherds and burnt bone on the floor and in fill are regarded as disturbed cremation 43.

GRAVE 41 (Figs 21, 34 and 47). Young female, 16-17, 82°.

6ft 9in x 2ft 4in x 1ft 1in (2.06m x 0.71m x 0.33m).

Body on right side, knees drawn up, left arm bent with hand on right pelvis, right arm across body, left forearm and right hand on iron complex.

1. *Iron pin*. Hooked head, L 13.5cm.

2. *Beads*:

- Amber a. 2 small, roughly-shaped
- b. 1 roughly-shaped (not illustrated)
- Fossil c. 1 *Porosphaera globularis* (Phillips), identified by Dr Paul Taylor, Palaeontology Dept, British Museum, (Natural History)
- Glass d. 1 cylinder blue translucent drawn and 2 fragments

41

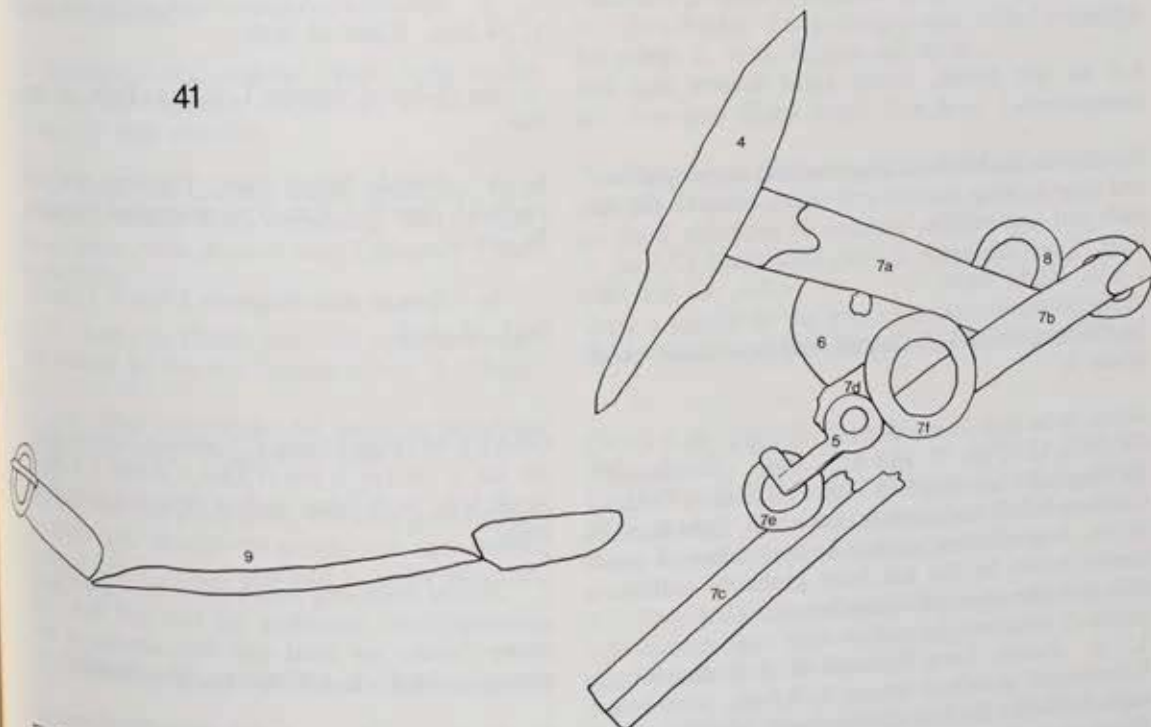


Fig 21. Alton Anglo-Saxon cemetery: finds *in situ* in Grave 41. Scale 1:2.

- e. 1 cylinder, blue translucent, drawn, twisted
 f. 2 globular, colourless, drawn
 g. 1 cylinder, colourless, drawn, beaded
3. *Ring* of three twisted bronze strips, diameter 1.8cm.
 1-3 together on lower right chest.
4. *Knife*. Angled back, curved cutting edge, possibly horn on tang. L 12cm.
5. *Bronze key*. Ring head with tab at top, hollow shaft, flat ward. L 3.8cm.
6. *Bronze disc*. Undulating surface, hole in centre, remains of tinning on one surface, diameter 3.5cm.
7. a. *Iron bar*. Folded and tongued at one end, the other perforated and penetrated by an iron loop. 6.8cm × 2cm.
 b. *Iron bar*. 8.2cm × 1.1cm, bent over a ring diameter c3cm.
 c. *Iron tweezers*. L 9.1cm. Fragments of a second pair of tweezers, L 6.9cm.
 d. *Iron*. Double fragment, textile impression. L 3cm.
 e. *Iron ring*, diameter 2.4cm.
 f. *Iron ring*, diameter 3cm.
8. *Iron loop* ?Buckle, ?remains of tongue, diameter 4.5cm.
 4-8 on left pelvis, under right fingers and left forearm.
9. *Bronze buckle loop*. Facetted on upper surface, and tongue; long, curved iron band, three rivets, one each end and middle, remains of probably horn on back. Loop diameter 2.2cm; iron band 17.5cm × 1.3cm. Right waist.
 In fill was one *tile* fragment and one small *sherd*, fabric 3.

GRAVE 42 (Figs 35 and 47). Male, c30-35, 63°. 7ft 3in × 2ft 6in × 1ft (2.21m × 0.76m × 0.31m). Cranium rolled back, lower jaw *in situ*, right hand in pelvis, finger bones scattered. A number of small animal bones by the left knee probably indicate a nest and the cause of disturbance.

1. a. *Sword*. Tang flattened at end, two bronze U-sectioned scabbard strips, L 6.6cm, 9cm below top of blade. Bronze U-sectioned terminal strip, fluted at ends, fixed by three rivets each side, with

remains of bronze sheet covering and transverse bronze strip with scored borders, L 12.5cm. X-ray shows three rows of diagonal and straight line pattern-welding, probably double layer. Remains of wood and fur on blade. L 81.8cm, width 5.2cm. The sword was placed on the left arm along the body with the bronze plates underneath, and the sets of three rivets on the scabbard binding project on the other side found face up.

- b. Large wedge-shaped amber *bead*, diameter 2.6cm. Beside the bronze binding on the upper part of the scabbard.

2. *Knife*. Angled back, curved cutting edge, groove along the back on one side. L 15.3cm. Partly under the sword and over the shield boss flange.

3. a. *Shield boss*. Convex dome, carination, button top, disc-headed rivets. Diameter 15cm, height 8cm.

- b. *Strap grip*, L 12.4cm.

c, d. *Two bronze disc-headed rivets*. Diameter 2.5cm to pierce 1.2cm thickness.

- e. *Bronze disc-headed rivet*, diameter 2.5cm.

- f. *Iron disc-headed rivet*, diameter 2.4cm.

3a and b over left waist; 3c and d outside left forearm; 3e and f near neck.

4. *Iron buckle* fragment. Width c2cm. Right waist.

5. a. *Spearhead*. Angular, split socket with rivet. L 24.2cm. Right of skull.

b. *Conical ferrule*, L 4.1cm. Right of right foot.

6. a. *Double bronze sheet*. Fragment with two rivets, 1.7cm × 1.2cm. Two other small fragments. In jaw.

b. *Bronze sheet* fragment 2.7cm × 1.3cm. At back of skull.

GRAVE 43 (Figs 35 and 47). Female, over 45, 255°. 5ft 1in × 2ft 1in × 8in (1.55m × 0.64m × 0.20m). Skull left; both arms slightly bent and away from body.

1. *Bronze small long brooch* (plate Ia). Square head, spatulate foot, moulding on bow and foot, ring stamp border on head and foot; remains of iron spring at back. L 6.3cm. On right shoulder.

2. *Bronze small long brooch* (plate Ib). Cruciform head with flat knobs, spatulate foot, decorative

border of ring stamps.
 stamps. L 7.5cm. On 1

3. *Brooch*:
 a. 1 small
 b. 1 wed
 between brooches.

a. 1 small, roughly-sh
 By left leg, found wit
 known.

GRAVE 44 (Figs 36 a
 1ft 3in × 1ft 10in ×
 0.38m).

Skull right, cranium
 pelvis, left hand on t

1. *Spearhead*. Angu
 hazel remains, *Corylus*
 left shoulder.

2. *Knife*. Straight ba
 only born on tang, L

3. *Iron buckle loop*
 Right waist.

GRAVE 45 (Figs 36
 65°.

1ft 3in × 1ft 9in × 9
 A rose tree had been
 small fragments rema
 pelvis on right side
 swollen right tibia.

1. *Spearhead*. Long
 with rivet, hazel rem
 48.8cm. By right sh

2. a. *Shield boss*. C
 of four disc-headed
 one of bronze with
 height 9.7cm.

b. *Long grip*. M
 and fastened by two

c-e. *Three iron*
 shield 0.7cm thick.

The boss was mid-lo
 ing from right shou
 rivets, c and d, at
 pelvis.

GRAVE 46 (Figs 36
 115°.

4ft 4in × 1ft 10in ×
 skull left.

border of ring stamps. Remains of silver in the stamps. L. 7.5cm. On left shoulder.

3. *Beads*:
 i. Amber a. 1 small, roughly-shaped
 b. 1 wedge-shaped
 Between brooches.
 ii. 1 small, roughly-shaped amber (not illustrated).

By left leg, found with bones, exact position not known.

GRAVE 44 (Figs 36 and 48). Male, over 45, 47°. 6ft 5in × 1ft 10in × 1ft 3in (1.96m × 0.56m × 0.38m). Skull right, cranium rolled back, right hand in pelvis, left hand on top left femur.

1. *Spearhead*. Angular, split socket with rivet; hazel remains, *Corylus* sp, in socket. L. 17.5cm. On left shoulder.
2. *Knife*. Straight back, curved cutting edge, probably horn on tang, L. 12.5cm. Under top left radius.
3. *Iron buckle loop and tongue*, diameter 2.6cm. Right waist.

GRAVE 45 (Figs 36 and 48). Robust adult male, 47.5°. 6ft 3in × 1ft 9in × 9in (1.91m × 0.51m × 0.23m). A rose tree had been planted at the head and only skull fragments remained. Hands crossed on pelvis, pelvis on right side and both knees drawn up, swollen right tibia.

1. *Spearhead*. Long, angular blade, split socket with rivet, hazel remains, *Corylus* sp, in socket. L. 43.8cm. By right shoulder.
2. a. *Shield boss*. Concave dome, spike top, three of four disc-headed rivets remaining, two of iron, one of bronze with silvered top. Diameter 13cm, height 9.7cm.

b. *Long grip*. Middle part with upturned edges and fastened by two disc-headed rivets. L. 39cm.

c-e. *Three iron disc-headed rivets* to penetrate shield 0.7cm thick. Diameter 2.5cm.

The boss was mid-lower chest, the long grip stretching from right shoulder to pelvis; two disc-headed rivets, c and d, at top end and e under the right pelvis.

GRAVE 46 (Figs 36 and 48). ?Female infant, aged 3, 11P. 4ft 4in × 1ft 10in × 9in (1.32m × 0.56m × 0.23m). Skull left.

1. *Bead*. Dome-shaped perforated bone. Epiphysis of left femur of animal, probably pig, *Sus scrofa*. Near the neck.

GRAVE 47 (Figs 3, 37 and 48). Female, c35, 61°. 7ft 6in × 2ft 4in × 10in (2.29m × 0.71m × 0.25m). Skull right, left hand in pelvis, right arm slightly bent.

1. *Gilt bronze saucer brooch* (Fig 3 plate If). Chip-carved, two Style I animals proceeding in the same direction, ring centre. Spring loop and pin catch at the back, with a pair of ruled lines connecting them. Diameter 4.2cm. On right shoulder.
2. *Gilt bronze saucer brooch*, pair to 1. Remains of iron pin at back and bronze mending plate to pin catch, soldered to broken stub. Diameter 4.2cm. On left shoulder.

3. *Beads*:
 Amber a. 25 small, roughly-shaped
 b. 2 roughly-shaped
 c. 5 wedge-shaped
 d. 4 large, wedge-shaped
 Glass e. 25 globular, colourless, drawn
 f. 7 globular, colourless, drawn (double)
 g. 7 globular, colourless, drawn (triple)
 h. 1 globular, colourless, drawn (quadruple)

From mid-waist down to between upper femurs, under left hand and pelvis.

4. *Knife*. Both sides curve, probably horn on tang. L. 12.2cm. Under left forearm.
5. *Iron buckle*. Loop, tongue and folded rectangular plate. L. 5cm. Under left wrist.
6. *Iron pin*. Hook head, L. 6.8cm. Lower spine.
7. Fragments of *iron ring*, diameter 2.4cm. Outside top left femur.

GRAVE 48. c63.5°. Only a corner of the grave traced containing skull. No excavation possible because under a damson tree.

GRAVE 49 (Fig 37). Juvenile, 6-8, and adult, possibly male. Found 'with a skeleton' in building a garage (Mr Humphreys) after the excavation, October 1961. Bone report mentions two individuals.

1. *Spearhead*. Leaf-shaped with a groove on the left side of each face, split socket; ash remains, *Fraxinus* sp, in socket. L. 20.5cm.
2. a. *Shield boss* fragments. Rim with two disc-headed, tinned bronze rivets. Diameter c15cm.

b. Two strip fragments from long shield *grip*, L 10cm and 7cm. Shield wood remains maple; possibly leather between rim and wood.

3. *Knife*. Both edges curve, cutting edge welded on, probably horn on tang. L 12.2cm.

UNASSOCIATED OBJECTS (Fig 38)

Pre-excavation and loose finds, which are prefixed 'U' when referred to in the text.

ANGLO-SAXON

1. *Spearhead*. Leaf-shaped blade, tip missing, split socket; ash wood remains, *Fraxinus* sp, in socket. L 21.5cm.

2. *Knife*. Angled back, deficient tip and tang, probably horn remains on tang, L 11.4cm.

3. *Bronze disc brooch*. Diameter 3.5cm. In private possession.

4. *Bronze disc brooch*. Pair with 3, diameter 3.5cm. In private possession.

5. Half biconical amber *bead*.

6. *Rolled bronze tube*. Traces of textile, L 3.7cm. Found in blank space surrounded by cremations 26, 41, 42, 22-4, 7, 27, 39 and graves 17 and 19.

7. Fragment of *bronze disc brooch*. Decorated with double border of simple punch marks, remains of perforated lug on back. Diameter c3.4cm.

8. Thin *iron sheet* ?disc fragment. Rivet in centre and ?another perforation near the edge, L 1.6cm.

9. *Bronze strip*. Middle rectangle faceted at corners, each end ribbed transversely. 2cm x 0.4cm.

7, 8 and 9 topsoil finds in east garden.

10. *Sherd*. Decoration of horizontal lines with diagonal bar stamps. Fabric 2. In topsoil, southeast corner of 'Cortina' garden.

11. Two *sherds*. Oval boss with line decoration and one other similar sherd. Fabric 3. Near west end of grave 25.

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12. *Bronze coin*, diameter 1.6cm. Lost, illustrated from index card sketch.

13. *Brass neck of flask*. Everted rim, tubular neck with scored line decoration. L 3.8cm, diameter 2.9cm.

14. *Lead weight*. Fragmentary disc with nick in edge. Diameter 1.9cm. Illustrated from index card sketch.

15. *Iron dome-headed rivet*. L 1.7cm.

Cremations

CREMATION 1 (Fig 39). Adult female. Depth in chalk c2in (5cm).

1. Black *pot*. Rim with hollow neck, upper part decorated with double scored triangles and rows of deep dots, indication of bosses between, remains of one small boss with possible ring-and-dot decoration. Flat base decorated with cross. Fabric 3. Diameter base 10cm.

2. *Bronze saucer brooch* (plate Ic). Five spirals each with short spur meeting the border; an outer, faintly beaded border; burnt and rim damaged; remains of pin catch and holder at back. Diameter c4cm.

3. *Bronze saucer brooch*. Pair to 2, warped with heat. Lost, not illustrated.

4. *Iron ring* fragments. Traces of silver, probably from another object in the cremation. Diameter 4cm.

5. Dark blue translucent glass disc *bead*.

6. *Iron pin* fragment. L 1.2cm.

Lump of iron slag, charcoal.

CREMATION 2 (Figs 39 and 43). Adult, probably female.

Shallow, oval pit varying in depth from 2in (5cm) on west to 4in (10.2cm) on east, full of black earth, charcoal fragments and burnt bone.

1. *Bronze tube fragment*. L 2.3cm, rectangular in section, 1.5cm x 1.1cm. Wood traces on outside.

2. *Fragment of bronze strap end*. Trapezoidal, one edge serrated, split end broken off at back, two rivet holes, decorated with parallel mouldings, 2.9cm x 2.7cm, and other *bronze fragments* (not illustrated).

3. *Bronze nail*. Disc head, L 1.4cm.

Three small *sherds*, charcoal.

CREMATION 3. Female or youth. Shallow, circular pit, diameter 10in (25.4cm), containing burnt bones.

CREMATION 4 (Fig 39, plate IV). Adult male in prime of life.

oval pit 1ft 8in x 1ft 5in (22.8cm), vertical sides, with charcoal inside bones in lower part.

1. a. *Hollow-necked*, rim at neck with three ribs below, shoulder below centre and rosette of triangles on a pointed oval border stamps, and a vertical rectangular stamps on the fabric 1. Height 24.5-4cm; diameter mouth 13cm.

b. *Sherds*. Everted rim, fabric 4.

2. *Iron nail*. L 2.5cm.

CREMATION 5 (Fig 39). Slight hollow in chalk cremation 7, probably

1. *Flat pot base*, thick

CREMATION 6. Adult. Base of black pot in

1. *Pot base*. Fabric 1. High in situ. Not illustrated.

CREMATION 7 (Figs 39 and 43). Calcined fragments of cremation in southwest, but not certain centre pit described juvenile (32, above).

Circular pit, vertical rim (43.2cm), depth 9in (22.8cm), full of grey earth and some charcoal in the pit, sherds of charcoal on top. A rectangular pit, 8-10in (20.3-25.4cm) deep, on north side and a circular posthole in the middle (22.8-35.5cm) deep.

1. *Fragment of bronze strap end*. 1ft 6in (45.7cm) long, smooth-based and 10in (25.4cm) wide, few inches shallower than cremation 5 was found in chalk, and may have

1. a. *Flat pot base*. 1.5cm. There are three sherds (i) ii) and iii), but none of the same shape, that is, possibly from a different pot and on chalk surface with gulleys, south

b. A second set of flat-topped rim and

Oval pit 1ft 8in × 1ft 5in × 9in (50.8cm × 43.2cm × 22.8cm), vertical sides, flat bottom. Black greasy earth with charcoal inside and outside the pot, burnt bones in lower part.

1. a. *Hollow-necked, wide-bodied pot*. Slashed cord at neck with three horizontal lines above and two below, shoulder bosses, each with a dimpled centre and rosette of triangular stamps, surrounded by a pointed oval border containing a row of circular stamps, and a vertical panel containing a row of triangular stamps on the lower side of the boss. Fabric 1. Height 24.6cm; maximum diameter 26.4cm; diameter mouth 15.4cm; diameter base 13cm.

b. *Sherds*. Everted rim, carination and other sherds, fabric 4.

2. *Iron nail*. L 2.5cm.

CREMATION 5 (Figs 40 and 49).

Slight hollow in chalk at edge of west ditch of cremation 7, probably cut by it.

1. *Flat pot base*, thick, fabric 1. Diameter 5.8cm.

CREMATION 6. Adult.

Base of black pot *in situ*, containing bones.

1. *Pot base*. Fabric 1, c15.2cm diameter and 5cm high *in situ*. Not illustrated.

CREMATION 7 (Figs 40 and 49, plate Va). Female. Calcined fragments of bone in centre pit, unburnt fragments in southwest posthole and topsoil. Possibly, but not certainly human. Some bones above centre pit described as ?middle-aged adult and ?juvenile (32, above).

Circular pit, vertical sides, maximum diameter 1ft 5in (43.2cm), depth 9in (22.8cm); filled with black, greasy earth and some burnt bone. Cremated material in the pit, sherds with iron fragments and charcoal on top. A rectangular gully surrounded this pit, 8-10in (20.3-25.4cm) wide, 10in (25.4cm) deep on north side and 3in (7.6cm) deep on east side, a circular posthole in each corner, from 9-14 in (22.8-35.5cm) deep. A deeper slot in middle of east side, 1ft 6in (45.7cm) long, the west or inner part smooth-based and 10in (25.4cm) deep, the east half a few inches shallower and roughly cut. The pot base of cremation 5 was found earlier just outside the west ditch, and may have been cut by the gully.

1. a. *Flat pot base fragments*. Fabric 3, diameter 7.8cm. There are three rim fragments in the same fabric (i) ii) and iii), but each is a slightly different shape, that is, possibly more than one pot. Inside the pit and on chalk surface beside it; north, west and south gulleys, southeast posthole.

b. A second set of a few matching *sherds*. Flat-topped rim and decoration of two parallel lines

and one slanting. Fabric 2. In the mid-south gully and southeast posthole. Could be spread from cremations 22, 23 and 24. Other small sherds are each single examples of a ware type.

2. *Iron fragment*. Pin on a ring, L 1.9cm.

3. *Thin iron sheet fragments*. 3.7cm × 2.5cm, 1.3cm × 1.1cm.

4. *Iron disc-headed nail*. L 1.5cm.

1-4 in central pit.

5. *Lumps of melted iron* containing bronze. Radiograph shows no object forms. L 14.5, 7.3, 4.7, 4.7, 3.5, 2.8cm. Not illustrated.

6. *Bronze buckle loop*. Oval and shelving, chip-carved ?animal ornament, width 2.2cm. Folded rectangular bronze plate fastened by iron rivet.

5 and 6 in southwest posthole, c3in (c7.6cm) deep.

7. *Beads*:

Amber a. fragments (lost, not illustrated)

Faience b. 1 melon, light green-blue

8. *Flat bronze fragment*. L 1.1cm.

7 c5in (c12.7cm) deep, 8 c2in (c5cm) deep, both in north gully.

9. *Octagonal bronze plate*, bearing stamped numeral XVI. 1.3cm × 1.1cm. In the south gully.

10. *Glass beads* melted together. Dark blue, brown, green translucent, white trail and opaque red patch.

11. *Iron strip*. Flat one side, convex the other, L 4.3cm. Other iron fragments.

12. *Flat bronze fragment* with perforation. ?Coin. L 1.4cm. Illustrated from index card sketch.

13. a. *Silver fragment* decorated with chip-carved ornament. Two raised borders, one straight and one curved, contain running scroll ornament with a billeted area beside it and an ear-shaped projection on the outer rim. L 2cm.

b. *Silver fragment* with remains of chip-carving. L 1.2cm.

Exact positions of 10-13 not known, but on the chalk in topsoil over the square.

14. *Flat bronze fragment*. L 1.3cm. On top of the chalk in topsoil just outside the southwest part of the square.

15. Bronze *tweezer fragment*, L 2.5cm. In topsoil above west gully.

CREMATION 8. ?Adult.
Pit 1ft 4in (40.6cm) diameter, 7in (17.8cm) deep. Containing black and greasy earth, some bone.

CREMATION 9 (Fig 40). Burnt bone fragments, ?human.

1. Fragments of base of *small black pot*. Fabric 1, diameter 5.4cm. *In situ* in hollow 0.5in (1.3cm) deep.

CREMATION 10 (Figs 40 and 44). Female.
An arch-shaped pit 1ft 6in × 1ft 8in (45.7cm × 50.8cm); floor roughly cut, maximum depth 6in (15.2cm). Contained some burnt human bone, unidentifiable.

1. Two dark blue, translucent, glass disc *beads*.

Another fragment of burnt bone nearby.

CREMATION 11 (Figs 40 and 44). Bone fragment, unidentifiable.

Circular pit, maximum depth 7in (17.8cm); near and south of grave 14, contained sherds and charcoal.

1. a. Thin *rim* and *sherd*. Fabric 1.
- b. Two small *sherds*. Fabric 2 (not illustrated).

CREMATION 12 (Fig 40). Middle-aged adult.
Slight hollow in chalk.

1. Large *pot*. Narrow, hollow neck, conical top, spherical lower half, nine hollow bosses on carination. Row of trellis-in-circle stamps at neck and below in irregular in-filled shield shapes. One trellis-in-triangle stamp. Fabric 3. Height 19.2cm; maximum diameter 22.2cm; diameter mouth c10.4cm; diameter base c9cm. Contained bones.

CREMATION 13 (Fig 40). Female, bone unidentifiable.

Circular pit, diameter 1ft 1in (33cm), depth 7in (17.8cm), vertical sides, flat bottom. Greasy fill with burnt bone, charcoal.

1. Dark blue, translucent, glass annular *bead*.

CREMATION 14 (Fig 40). Adult ?male.
Pit diameter c6in (15.2cm), depth c2.8in (7.2cm). Burnt bones inside and outside pot.

1. Biconical *pot*. Hollow neck, convex lower half, fabric 1. Height 13cm; maximum diameter 14.5cm; diameter mouth 9.2cm; diameter base 7.2cm.

CREMATION 15 (Fig 41). Unidentifiable, but possibly juvenile.

Pit 1ft 2in × 1ft × depth 1ft 1in (35cm × 30.5cm × 33cm).
Contained bone, charcoal, greasy earth, one large animal tooth (lost).

1. One *sherd*. Fabric 3 (not illustrated).
2. *Iron slag* (not illustrated).
3. *Sherds*. Fabrics 1 and 2 (not illustrated) and rim fabric 3.
4. *Bronze strip*. Copper-tin alloy containing lead. 2.9cm × 1.1cm.
5. Melted *lump of silver*, containing copper and small amounts of zinc, lead and tin. The gold detected was probably in the base metal, but might possibly represent the remains of gilding. L 1.8cm.

3, 4 and 5 were nearby.

CREMATION 16 (Fig 41). Bones unidentifiable.
Oval pit 1ft × 10in (30.5cm × 25.4cm), depth 6in (15.2cm). Burnt bones and charcoal inside pot.

1. Ovoid *pot*. Hollow neck, wide mouth, slightly concave base, fabric 1. Height 21.7cm; maximum diameter 22.3cm; diameter mouth 17.4cm; diameter base 11.5cm.

CREMATION 17. Bones unidentifiable.
Pit 2ft × 1ft 1in deep (61cm × 33cm deep). Some bone and charcoal, one small *tile* fragment and small *sherd*.

CREMATION 18. Bone unidentifiable.
Pit 1ft 3in × 1ft 2in deep (38.1cm × 35.5cm deep). One fragment burnt bone and charcoal.

CREMATION 19 (Fig 41). Bone unidentifiable.
Sherds, bone on chalk surface.

1. Two *stamped sherds*. Three-ring circle, fabric 1.

CREMATION 20 (Fig 41). Juvenile or senile.

1. *Wide-mouthed bowl*, fabric 1. Height 9.6cm, maximum diameter 15.3cm. Contained bones.

CREMATION 21 (Fig 41). Bone unidentifiable.
Sherds and burnt bone on chalk surface under cement foundation of brick wall.

1. *Sherds* of flat pot base, fabric 1.

Small burnt *spherical object*, diameter 1.2cm, nearby.

CREMATION 22 (Fig 41). Bones ?human.
Pit diameter 1ft 10in (55.9cm), depth 1ft 2in (35.5cm). Contained light brown soil, charcoal, sherds, burnt bone.

1. Two *sherds*. De
vertical lines, fabric
CREMATION 23 (Fig 1ft 10in (55.9cm) by cremation 24. O
chalk lumps, inner
and some sherds.
1. Flat base *pot* fra
fragment found in
diagonal lines and
above. Fabric 2.
CREMATION 24 (female.
Partly overlies crem
contained cremated
2, 3 and 4 lying u
1. *Decorated pot*. N
Two horizontal line
lines below with t
panels by six sets of
a row of circular tre
rows of cross-in-cir
meter mouth 14.6c
2. Oval bone com
3. *Bronze needle*,
4. *Bronze pin*. Fac
below. L 4.7cm.
Fused lump of ash
From area of crem
metal fragments:
1. *Fragment of cop*
tainly, tin with sm
Decorated with thre
nicked and an inn
ribbed. L 1.8cm.
2. *Fragment of sil*
per and also contain
Traces of chip-carv
CREMATION 25.
Burnt bone only in
CREMATION 26 (likely youth.
Small pit, diameter 6
Containing burnt bo
1. *Sherds*. Side of
decoration and roset
CREMATION 27 (light hollow with o

- Two *sherds*. Decoration four parallel lines and vertical lines, fabric 2.

CREMATION 23 (Figs 41 and 48). No bones. Pit 1ft 10in (55.9cm), depth 1ft 1in (33cm). Overlaid by cremation 24. Outer fill of light brown soil and chalk lumps, inner part of greasy soil with charcoal and some sherds.

- Flat *base pot fragment*. One matching decorated fragment found in cremation 24; carination with diagonal lines and a slashed diagonal long boss above. Fabric 2.

CREMATION 24 (Figs 41 and 48). Probably adult, female.

Partly overlies cremation 23. In a slight hollow. Pot contained cremated bones at the bottom, with items 2, 3 and 4 lying unburnt on top of the bones.

- Decorated pot*. Narrow, hollow neck, wide body. Two horizontal lines below neck and four horizontal lines below with the space between divided into panels by six sets of vertical lines. Panels containing a row of circular trellis stamps at top and one or two rows of cross-in-circle stamps below. Fabric 2. Diameter mouth 14.6cm.

- Oval *bone comb* with perforation. L 4.7cm.

- Bronze needle*, eye broken. L 3.4cm.

- Bronze pin*. Facetted cube head with moulding below. L 4.7cm.

Fused lump of *ash slag*. L 2.1cm.

From area of cremations 22, 23 and 24, two gilt metal fragments:

- Fragment of copper alloy* containing, almost certainly, tin with small amounts of zinc and lead. Decorated with three parallel ridges, the outer ones nicked and an inner ridge alternately plain and ribbed. L 1.8cm.

- Fragment of silver*. Probably debased with copper and also containing traces of zinc, lead and gold. Traces of chip-carved decoration. L 1.5cm.

CREMATION 25. Bone unidentifiable. Burnt bone only in slight hollow.

CREMATION 26 (Fig 42). Elderly person or possibly youth. Small pit, diameter 6in (15.2cm), depth 3in (7.6cm). Containing burnt bone.

- Sherds*. Side of a pot and base *in situ*, line decoration and rosette stamp. Fabric 1.

CREMATION 27 (Figs 42 and 45). Adult. Slight hollow with one side of pot *in situ* at edge of

grave 19, with bones and iron fragments. Cut by grave 19.

- Sherds*. Fabric 3. Matching sherds in fill of grave 19; near-vertical rim with spherical body.

- Iron *miniature toilet set*. Iron ring, diameter 2.5cm; hook L 2.2cm; spatula L 3.7cm; and tweezers L 2.7cm.

CREMATION 28. Bone unidentifiable.

Pit diameter 1ft 1in (33cm), depth 10in (25.4cm). One *sherd*, fabric 1; charcoal, bone fragment.

CREMATION 29 (Fig 45). Adult. Slight hollow.

- Pot*. Fabric 1. Height 7.6cm remaining, diameter 17.8cm, containing bone. Not illustrated.

CREMATION 30. Probably elderly person or youth.

Pit 2ft × 1ft 6in × 10in (60.9cm × 45.7cm × 25.4cm). Centre dark grey with chalk fragments surrounded by light brown silt. Fragment Roman *tile* and small *sherds*.

CREMATION 31 (Figs 42 and 45). Elderly adult, female.

Pot found in 6in (15.2cm) of topsoil near hedge, full of bones. On top of head end of grave 20. A rectangular hollow cut 4in (10.2cm) into the chalk at the head of grave 20 contained this cremation.

- Pot*. Thin-walled concave base, beaded rim, shouldered, globular body, fabric 1. Maximum diameter 16.5cm; diameter base 8cm.

- Small, *square-headed brooch*. Burnt and bent, chip-carved decoration, one claw in head panel, diamond-shaped foot, L 5.2cm. Lost, illustrated from index card sketch.

- Iron slag* (not illustrated).

Nearby: iron *slag*, *pyrites* and fragment of *leather* with perforation.

CREMATION 32 (Figs 42 and 45). Adult, probably male, *old*.

At the south, head end of grave 23, a hollow with pot containing burnt bones lying on the surface of the chalk. It was cut in half when the grave was dug, and some of the sherds were in the grave fill.

- Large *decorated pot*. Narrow neck, slashed collar, alternate diagonal and vertical slashed long bosses, fabric 1.

Few odd *sherds*, charcoal.

- Nearby *bronze fragment*, 5.6cm × 2.8cm. Unidentifiable, but iron oxide and zinc detected.

CREMATION 33 (Figs 42 and 50; plate Vb). Bones unidentifiable, female.

A hollow 7in (17.8cm) deep and surviving to a width of 10in (25.4cm) was cut through by the northwest corner of the rectangular structure, cremation 45. Sherds, charcoal and burnt bone at chalk level in greasy earth over a hard-packed layer of silt with small chalk lumps.

1. Sherds, including a thin, everted rim, fabric 1. Some also in north and west gulleys of cremation 45.

2. Two fragments of iron ?slag (not illustrated).

3. Dark blue, translucent, glass disc bead. Half melted, with opaque red glass, remains of another bead, stuck to one side.

4. One animal tooth. Lower incisor of sheep or goat, *Ovis* or *Capra* sp.

3 and 4 in southwest corner of the gully of cremation 45.

CREMATION 34

Oval pit with vertical sides and flat bottom 2ft × 1ft 9in (60.9cm × 53.3cm). Contained burnt bone and one Roman sherd.

CREMATION 35

Roughly oval pit, 1ft 9in × 1ft 3in × 6in (53.3cm × 38.1cm × 15.2cm) which contained burnt bone (unidentifiable), charcoal and one sherd, fabric 1.

CREMATION 36.

Circular pit, diameter 9in (22.8cm), depth 3in (7.6cm); no contents.

CREMATION 37.

Circular pit, diameter 11in (27.9cm), depth 5in (12.7cm). One sherd at top, fabric 3.

CREMATION 38 (Fig 44).

Circular pit, diameter 10in (25.4cm), depth 1ft 2in (35.5cm), at foot of grave 15 and subsequent to it. No contents.

CREMATION 39.

Circular pit, diameter 1ft 3in (38.1cm), depth 9in (22.8cm); flat bottom, vertical sides. No contents.

CREMATION 40.

Circular pit, flat bottom, vertical sides. Diameter 1ft 10in (55.9cm), depth 10in (25.4cm). Modern shallow ditch on top. Two small sherds, fabric 1.

CREMATION 41.

Oval pit, vertical sides, 1ft 3in × 10in × 5in (38.1cm × 25.4cm × 12.7cm). No contents.

CREMATION 42.

Oval pit, vertical sides, 1ft 1in × 9in × 6in (33cm × 22.8cm × 15.2cm). One fragment charcoal.

CREMATION 43 (Fig 42). Bones probably human. Sherds and burnt bone on floor and in fill of grave 40, probably disturbed when grave dug.

1. Rim and sherds. Fabric 1.

CREMATION 44 (Fig 42).

In fill of grave 2.

1. Roman wheel-thrown cooking pot. Shouldered form with everted rim, zone of trellis decoration, black-burnished surface. Height 15.7cm; diameter mouth 12.7cm; diameter base 5.1cm. In private possession.

CREMATION 45 (Fig 42, plate Vb).

A rectangular, flat-bottomed gully, external measurements c7ft × 5ft (2.13m × 1.52m), width c1ft (30.5cm), depth varying from 8in (20.3cm) on north side to 2in (5cm) on south side. Light brown earth with small chalk lumps at bottom, covered with fine, packed earth. The northwest corner cut through cremation 33. Four round stakeholes 2in (5cm) deep, diameter c1.5in (3.8cm). As the level of the chalk dropped to the south and west the gully became narrower and shallower, and it is possible that any stakeholes which might have existed in this quadrant would not have reached the present chalk level. A few small burnt clay and charcoal fragments were found at the bottom of the east gully.

CREMATION 46 (Figs 42 and 44).

A shallow, circular hollow in the chalk near the left side of grave 16 contained sherds of the base of a pot, but no trace of bones or charcoal. Matching sherds and two fragments of burnt bone, unidentifiable, were found in the fill of grave 16, so that this must have been a disturbed cremation, deposited earlier.

1. Pot fragments of a thick base. One sherd in grave fill with rosette stamp, fabric 1.

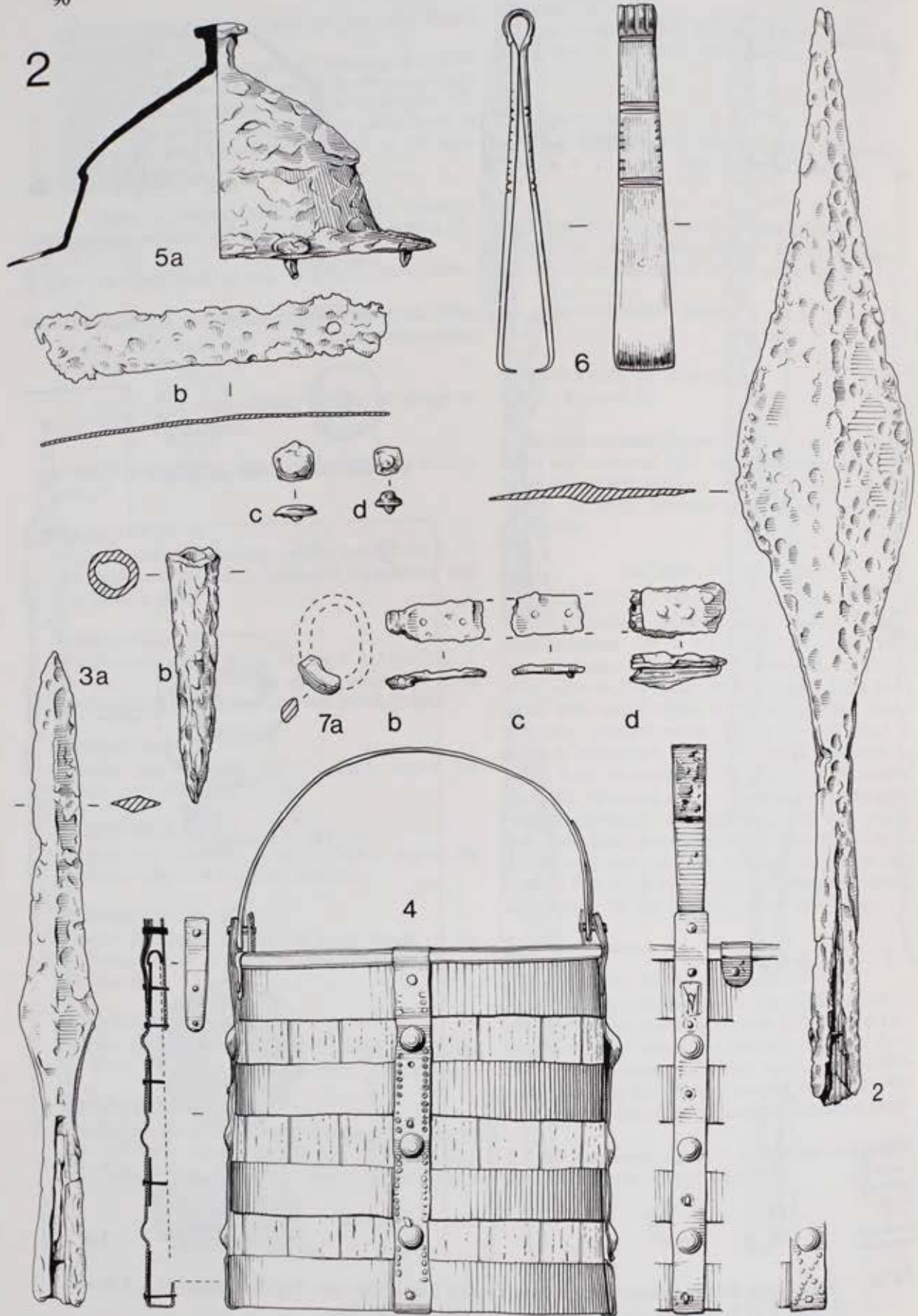


Fig 23. Alton Anglo-Saxon cemetery: finds from Grave 2 (see also Fig 22). Scales - 6 at 1:1; 2-5 and 7 at 1:2.



Fig 24. Alton Anglo-Saxon cemetery: finds from Grave 6.

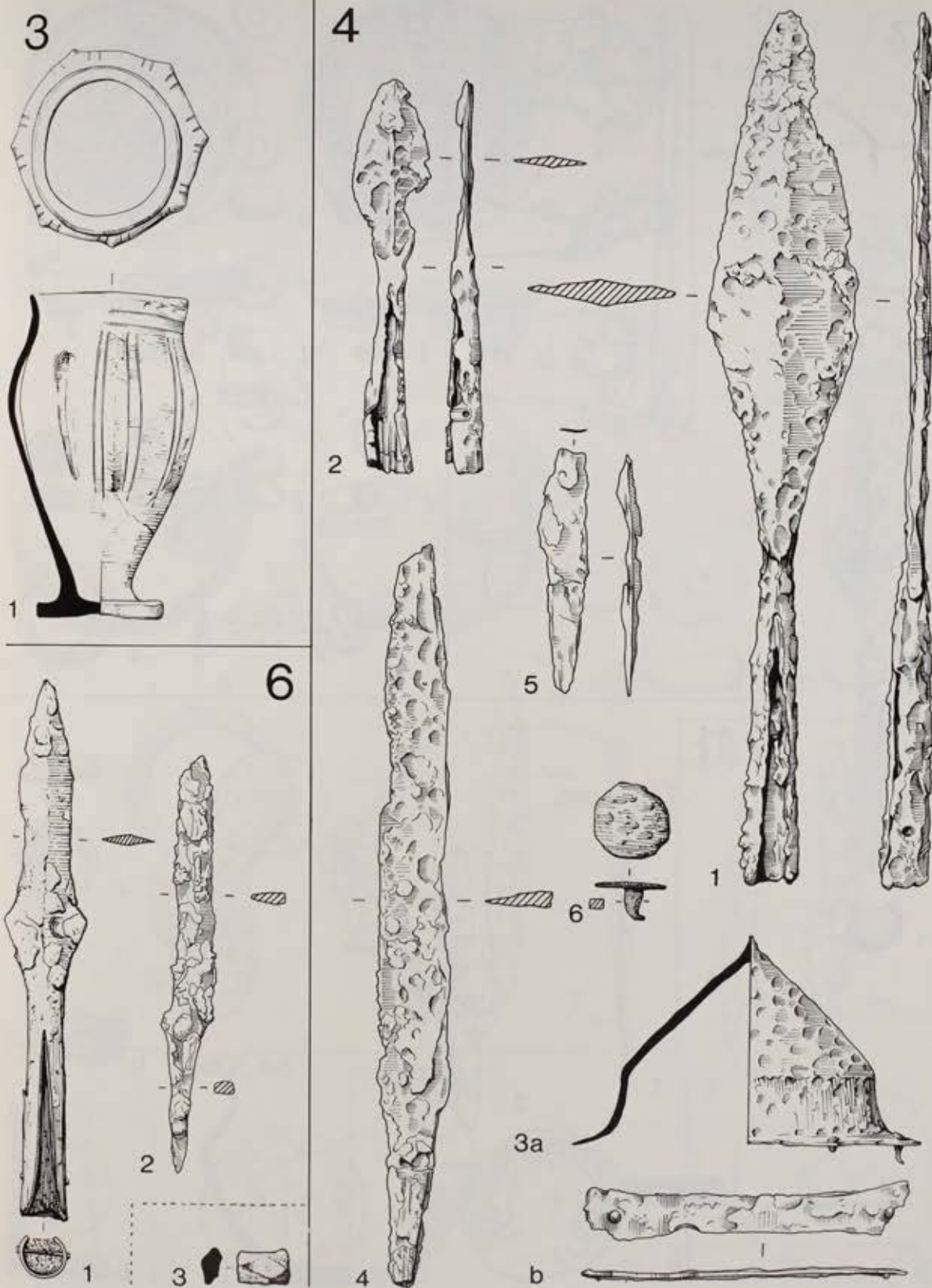


Fig 24. Alton Anglo-Saxon cemetery: finds from Graves 3, 4 and 6. Scales - 4.1-6, 6.1 and 6.2 at 1:2; 3.1 and 6.3 at 1:3.

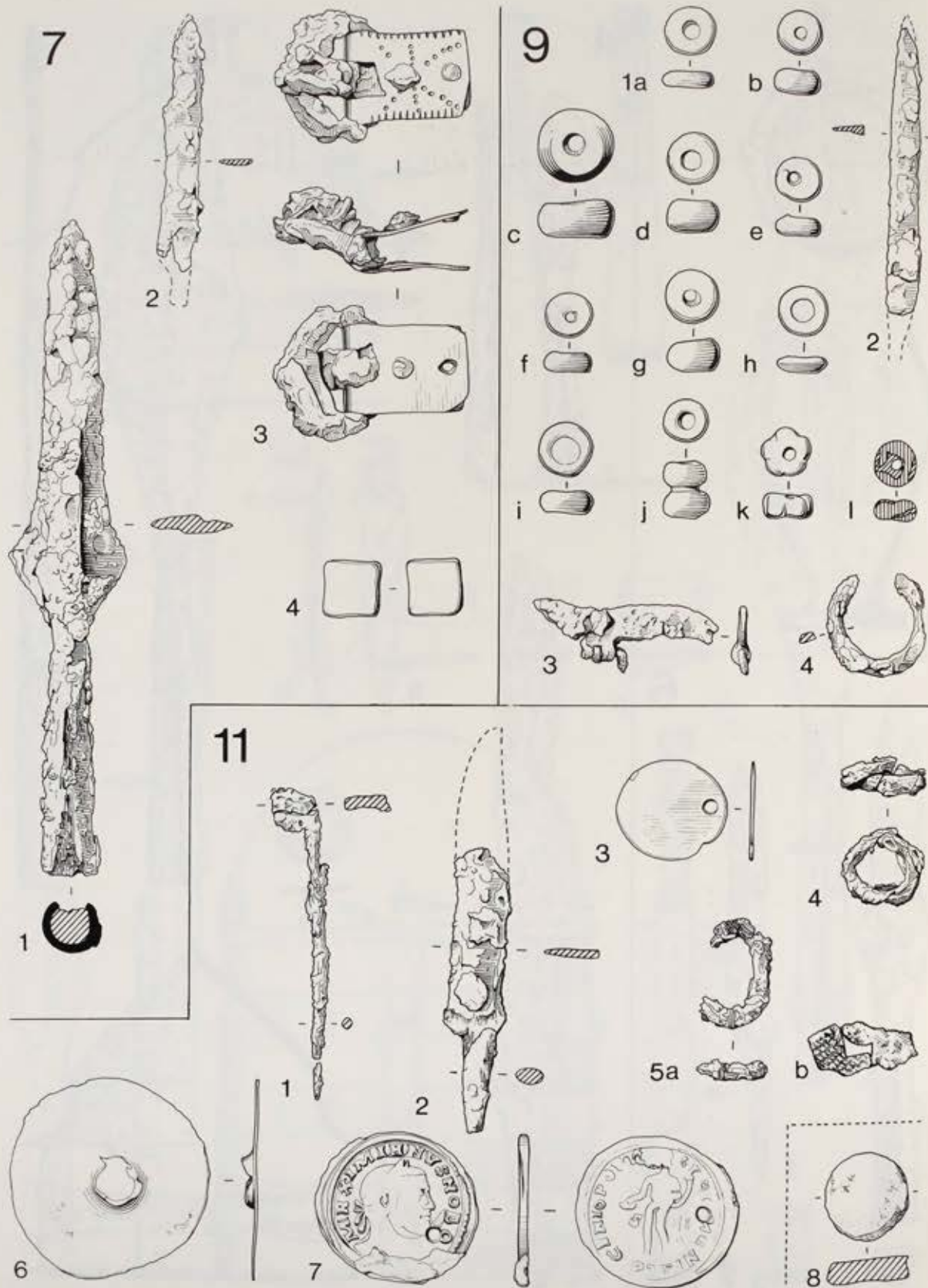


Fig 25. Alton Anglo-Saxon cemetery: finds from Graves 7, 9 and 11. Scales - 7.3-4, 9.1, 11.3, 11.6 and 11.7 at 1:1; 7.1-2, 9.2-4, 11.1-2, 11.4-5 and 11.8 at 1:2.



Alton Anglo-Saxon cemetery
11.4 at 1:1; 12.5-7, 1

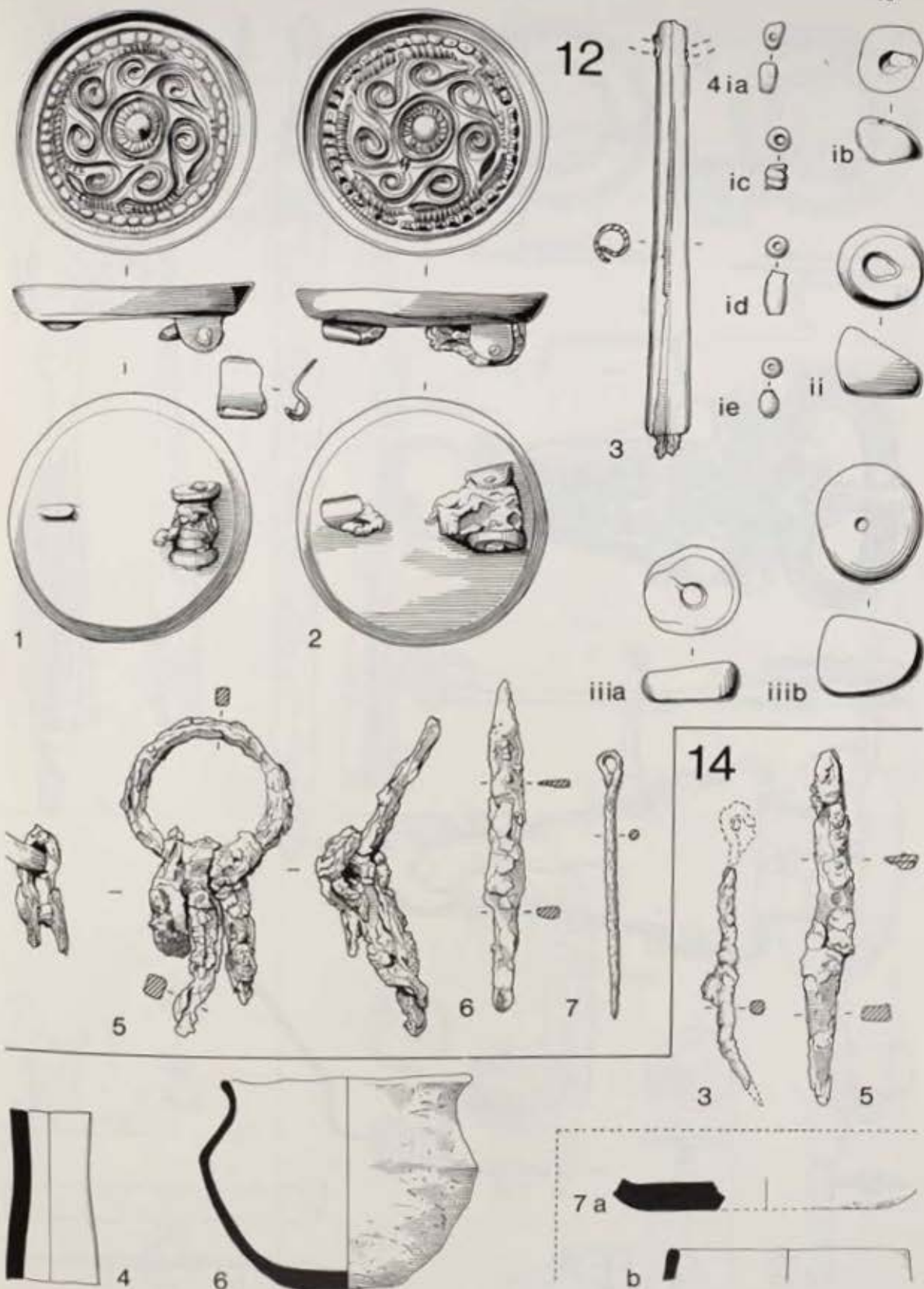


Fig 26. Alton Anglo-Saxon cemetery: finds from Graves 12 and 14 (see also Fig 27). Scales - 12.1-4 and 14.4 at 1:1; 12.5-7, 14.3 and 14.5 at 1:2; 14.6-7 at 1:3.

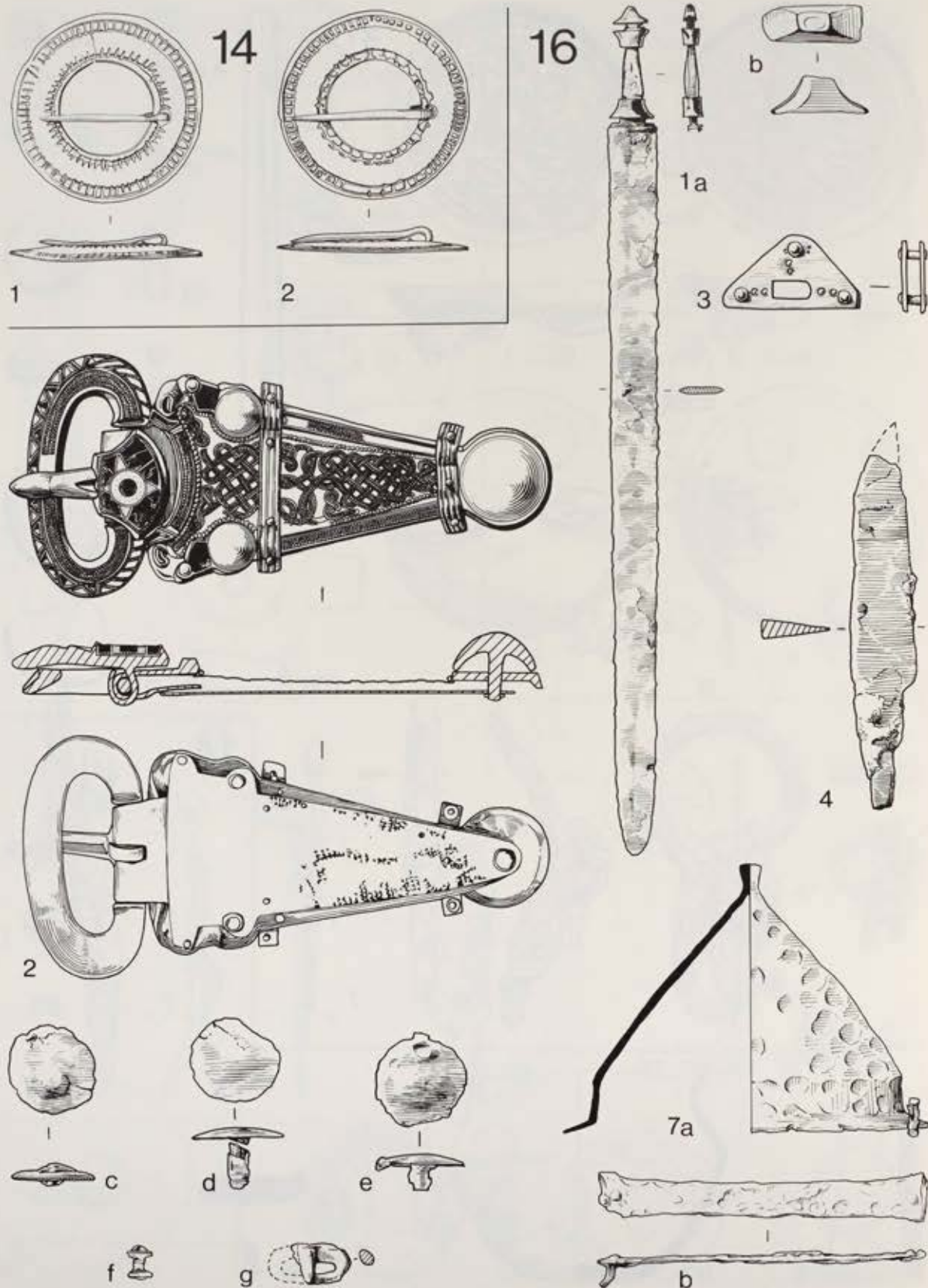


Fig 27. Alton Anglo-Saxon cemetery: finds from Graves 14 (see also Fig 26) and 16 (see also Fig 28). Scales - 14.1-2, 16.2 and 16.3 at 1:1; 16.1b, 16.4 and 16.7 at 1:2; 16.1a at 1:6.

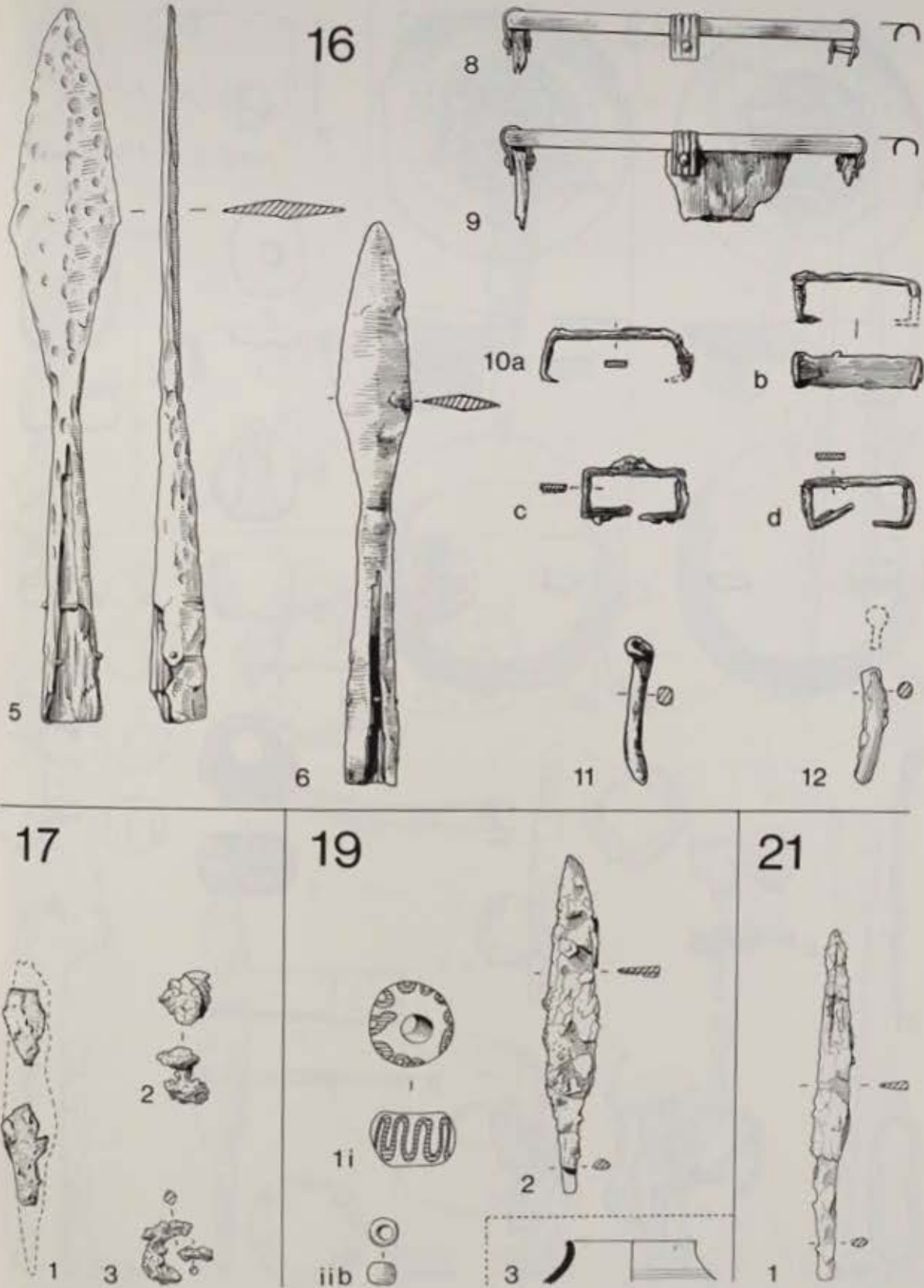


Fig 28. Alton Anglo-Saxon cemetery: finds from Graves 16 (see also Fig 27), 17, 19 and 21. Scales - 16.8-9 and 19.1 at 1:1; 16.5-6, 16.10-12, 17.1-3, 19.2 and 21.1 at 1:2; 19.3 at 1:3.

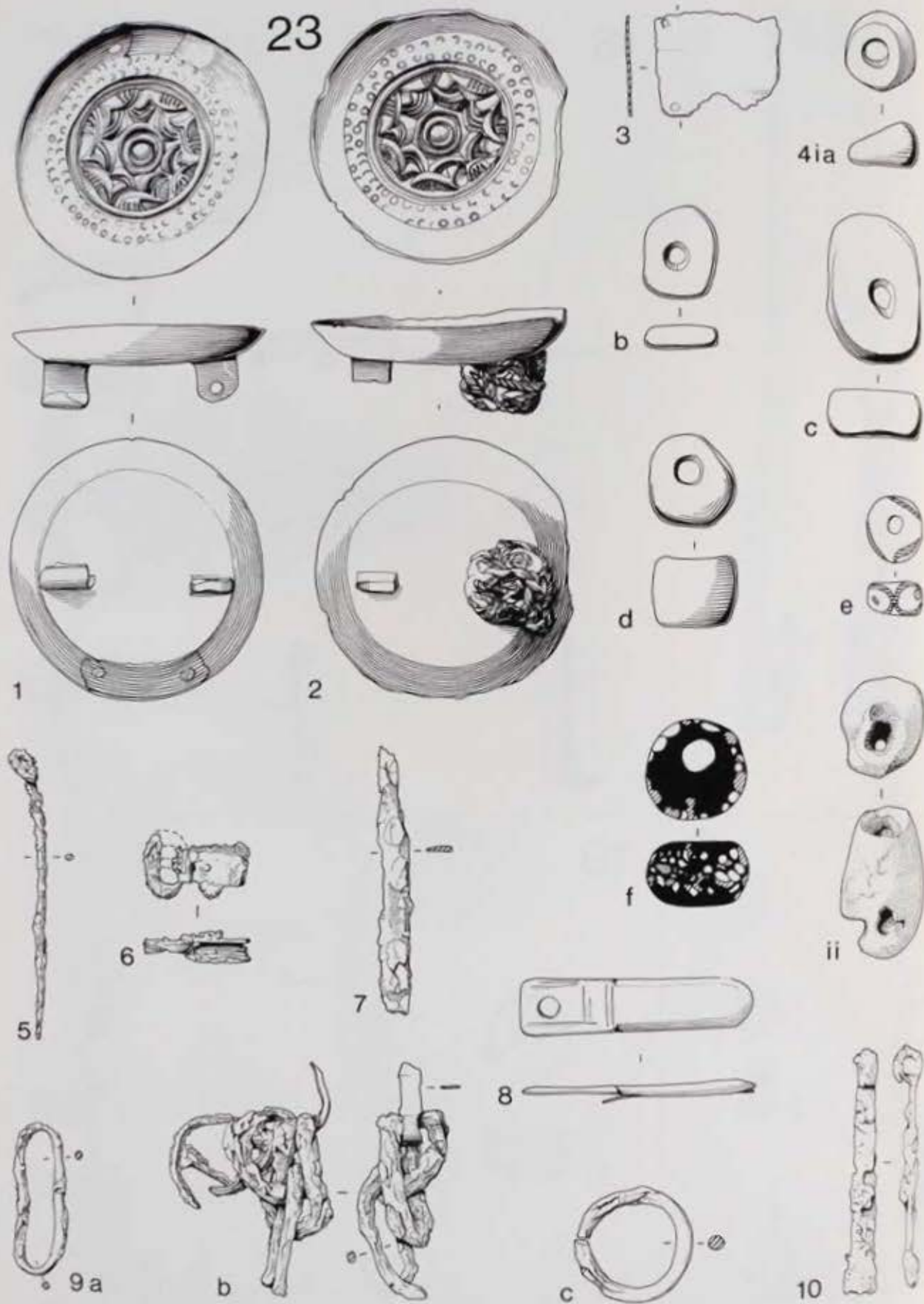


Fig 29. Alton Anglo-Saxon cemetery: finds from Grave 23. Scales - 1-4 and 8 at 1:1; 5-7, 9 and 10 at 1:2.

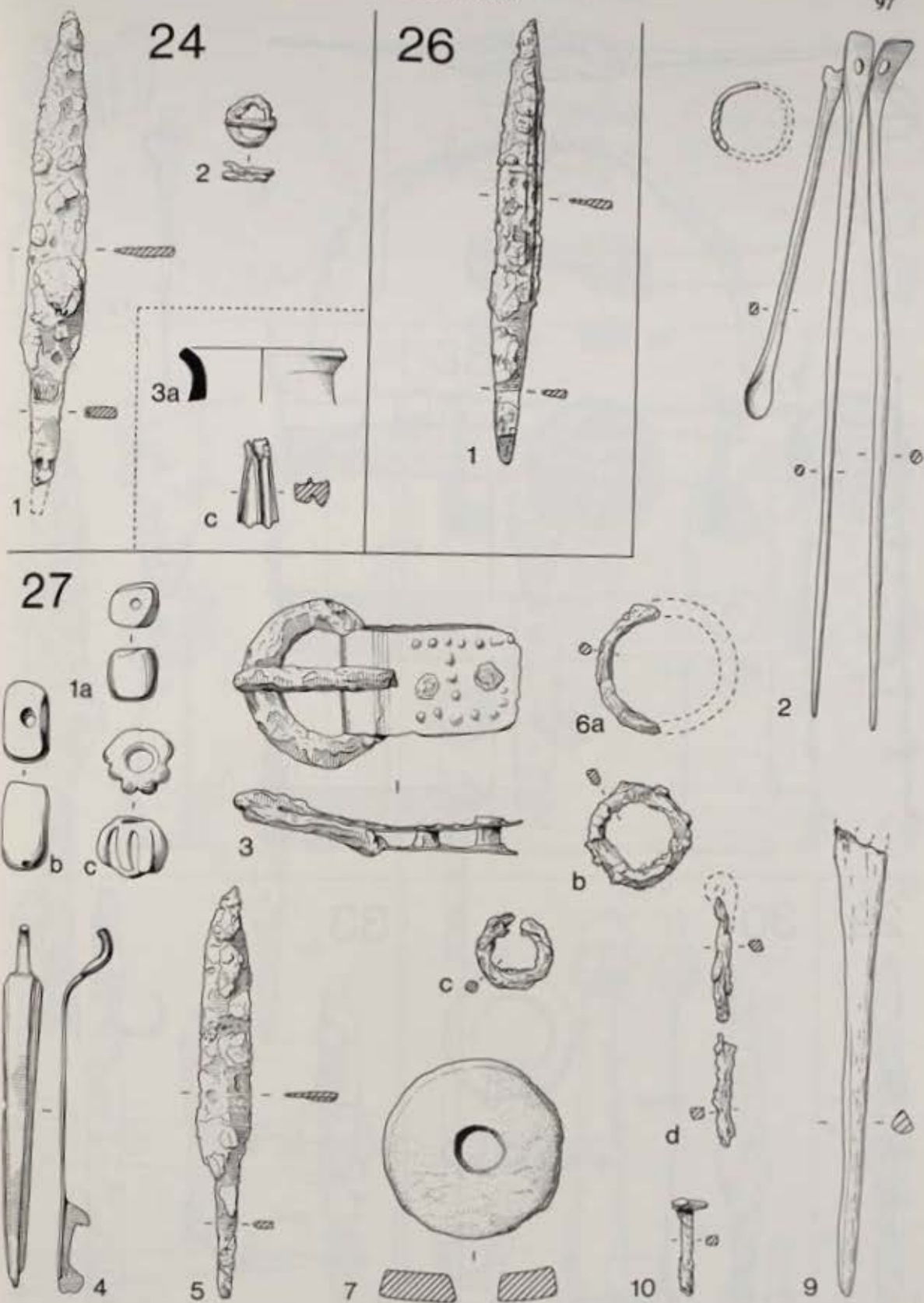


Fig 30. Alton Anglo-Saxon cemetery: finds from Graves 24, 26 and 27 (see also Fig 31). Scales - 27.1-4, 27.7 and 27.9 at 1:1; 24.1-2, 24.3c, 26.1, 27.5-6 and 27.10 at 1:2; 24.3a at 1:3.

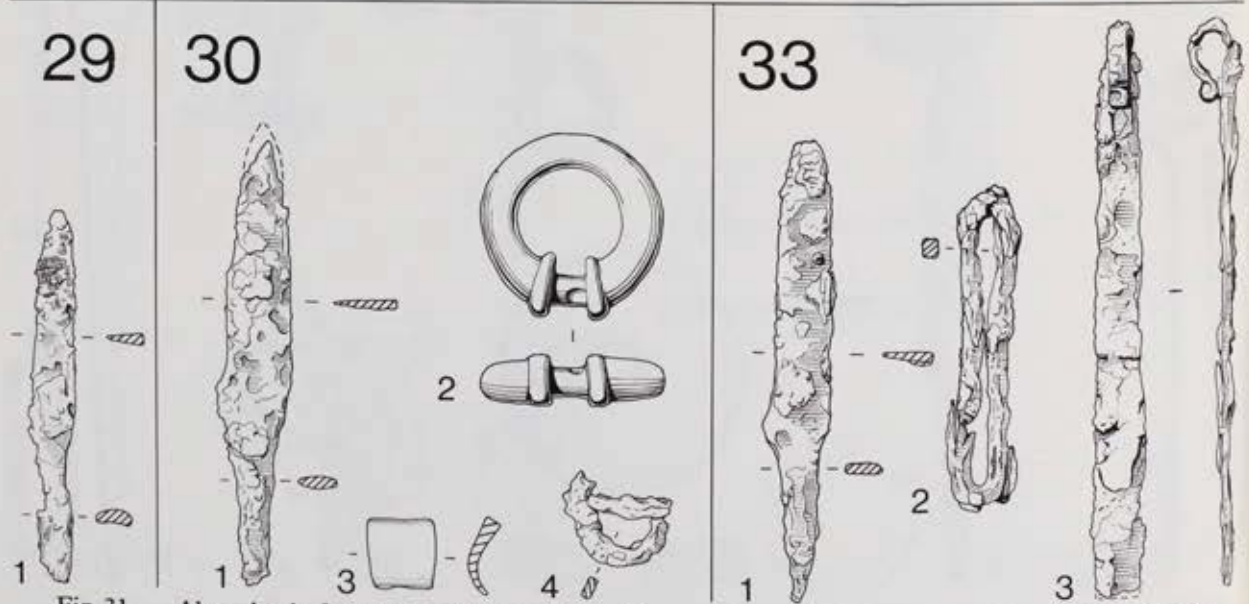
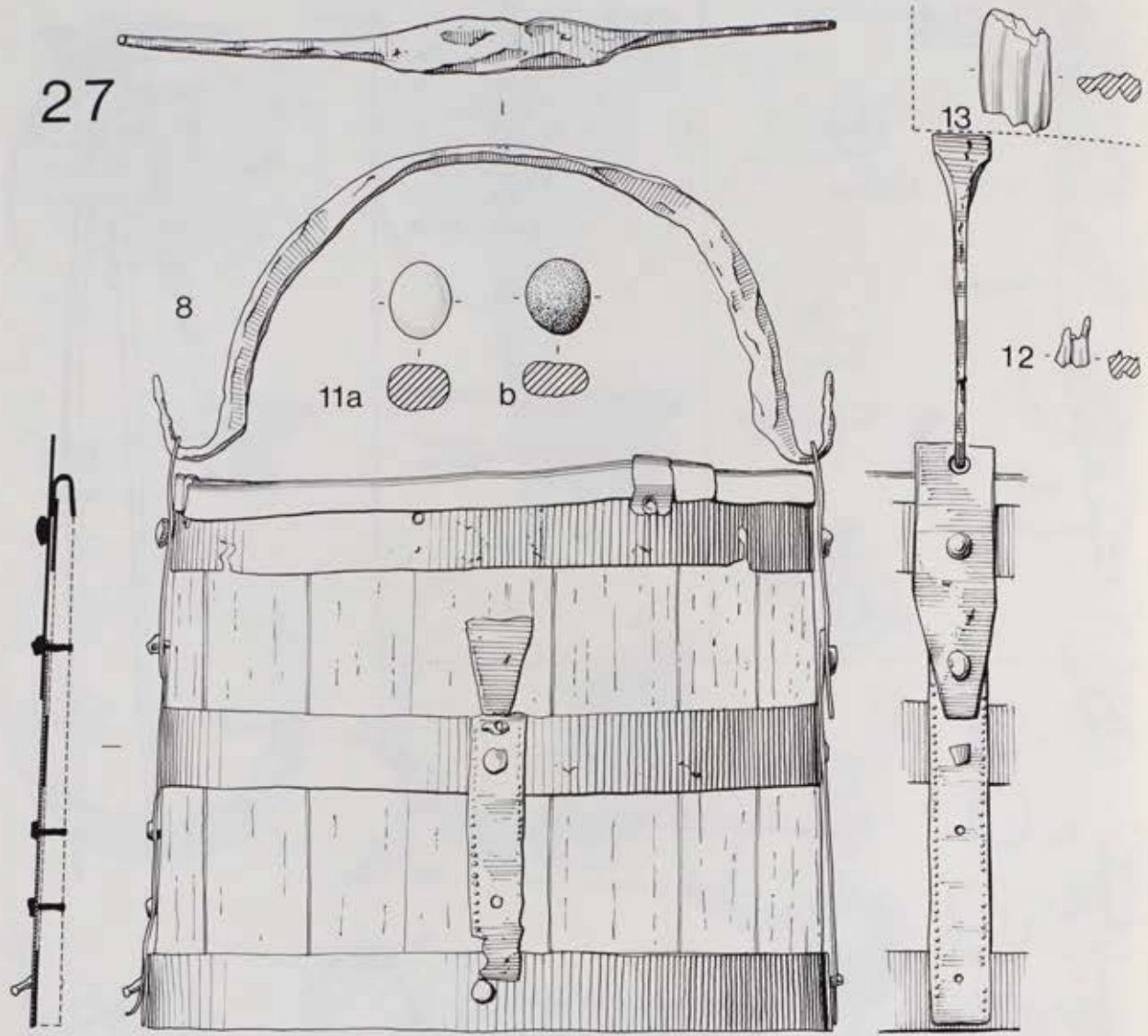
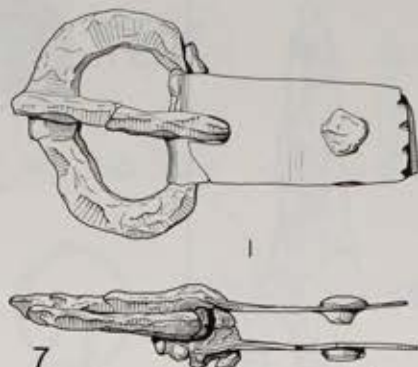
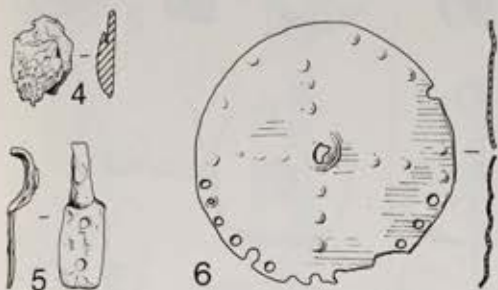


Fig 31.

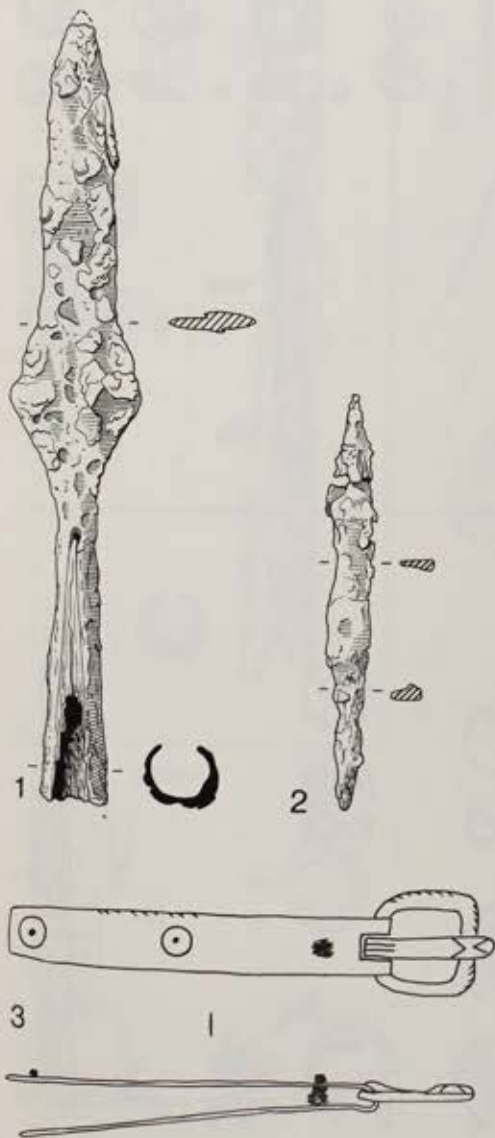
Alton Anglo-Saxon cemetery: finds from Graves 27 (see also Fig 30), 29, 30 and 33 (see also Fig 32). Scales - 30.2 and 30.3 at 1:1; 27.8, 27.11-13, 29.1, 30.1, 30.4 and 33.1-3 at 1:2.

Alton Anglo-Saxon
34.3 and 35.1-5

33



34



35

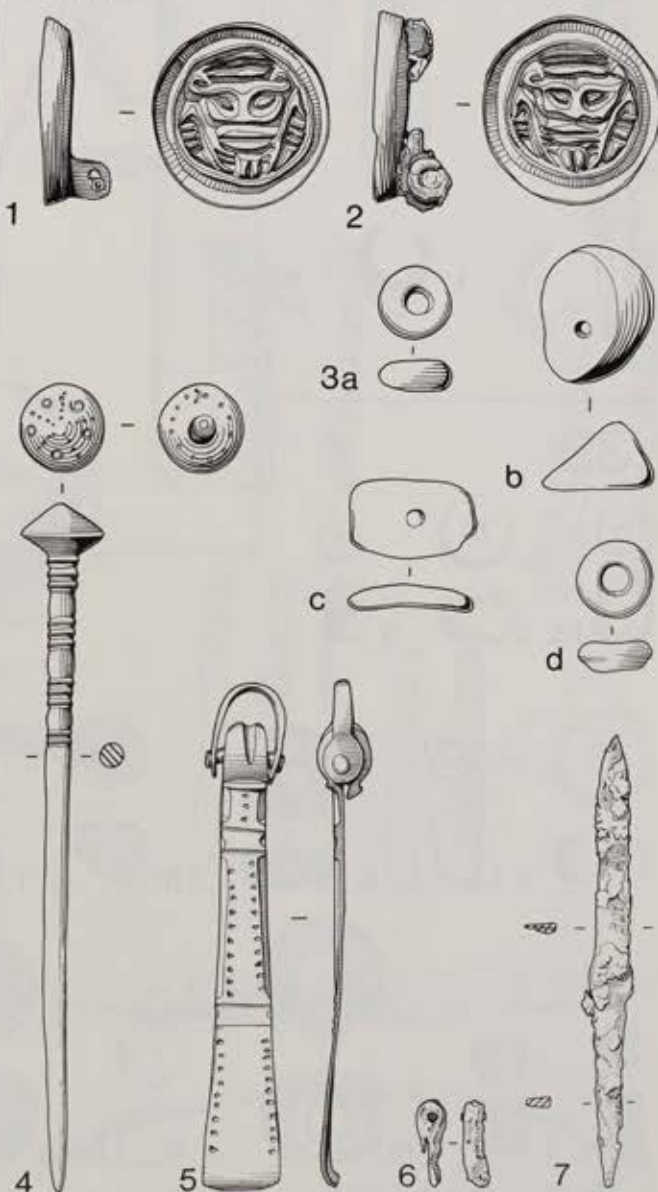


Fig. 32. Alton Anglo-Saxon cemetery: finds from Graves 33 (see also Fig 31), 34 and 35. Scales - 33.6-8, 34.3 and 35.1-5 at 1:1; 33.4-5, 34.1-2 and 35.6-7 at 1:2.

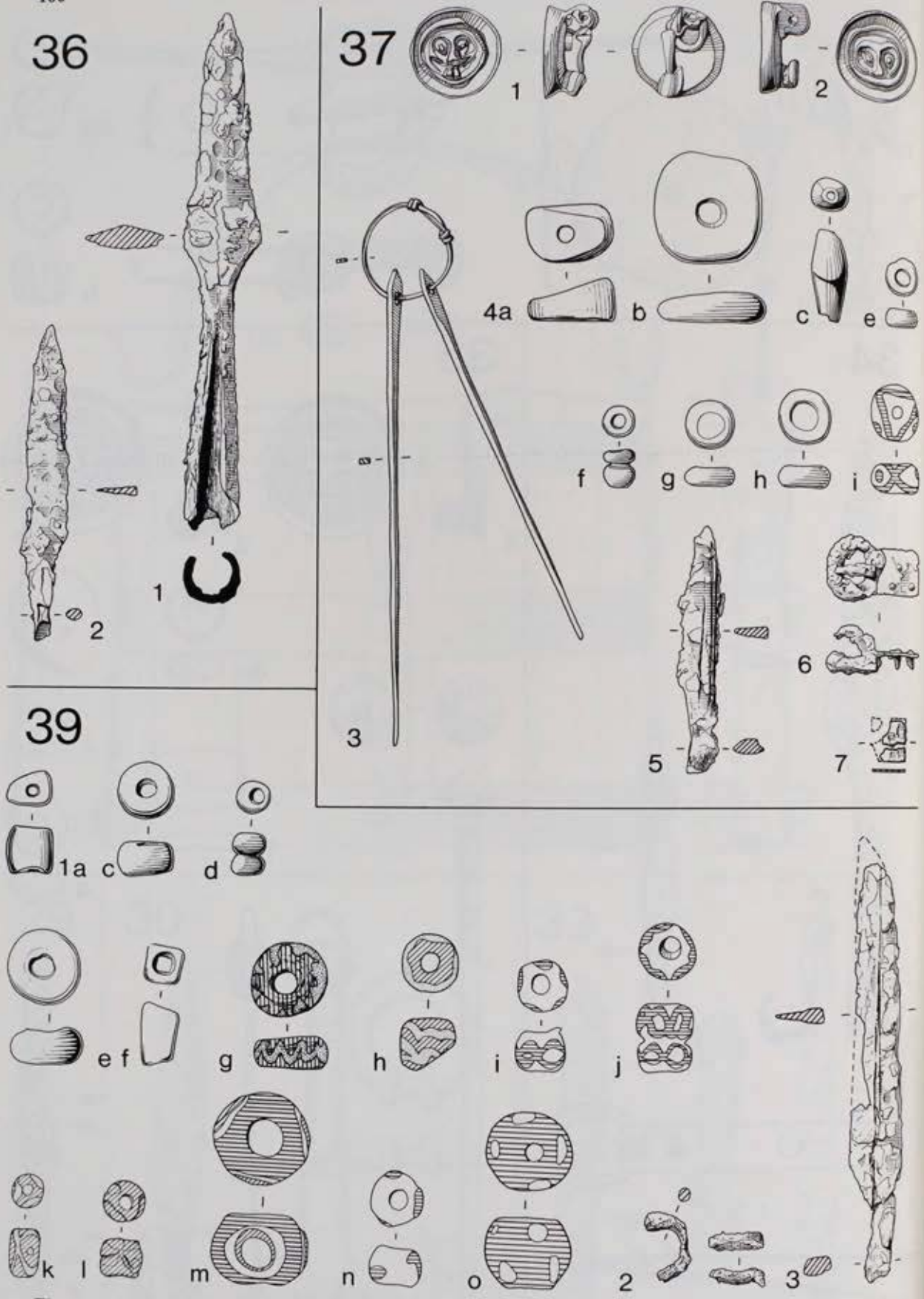


Fig 33. Alton Anglo-Saxon cemetery: finds from Graves 36, 37 and 39. Scales - 37.1-4 and 39.1 at 1:1; 36.1-2, 37.5-7 and 39.2-3 at 1:2.



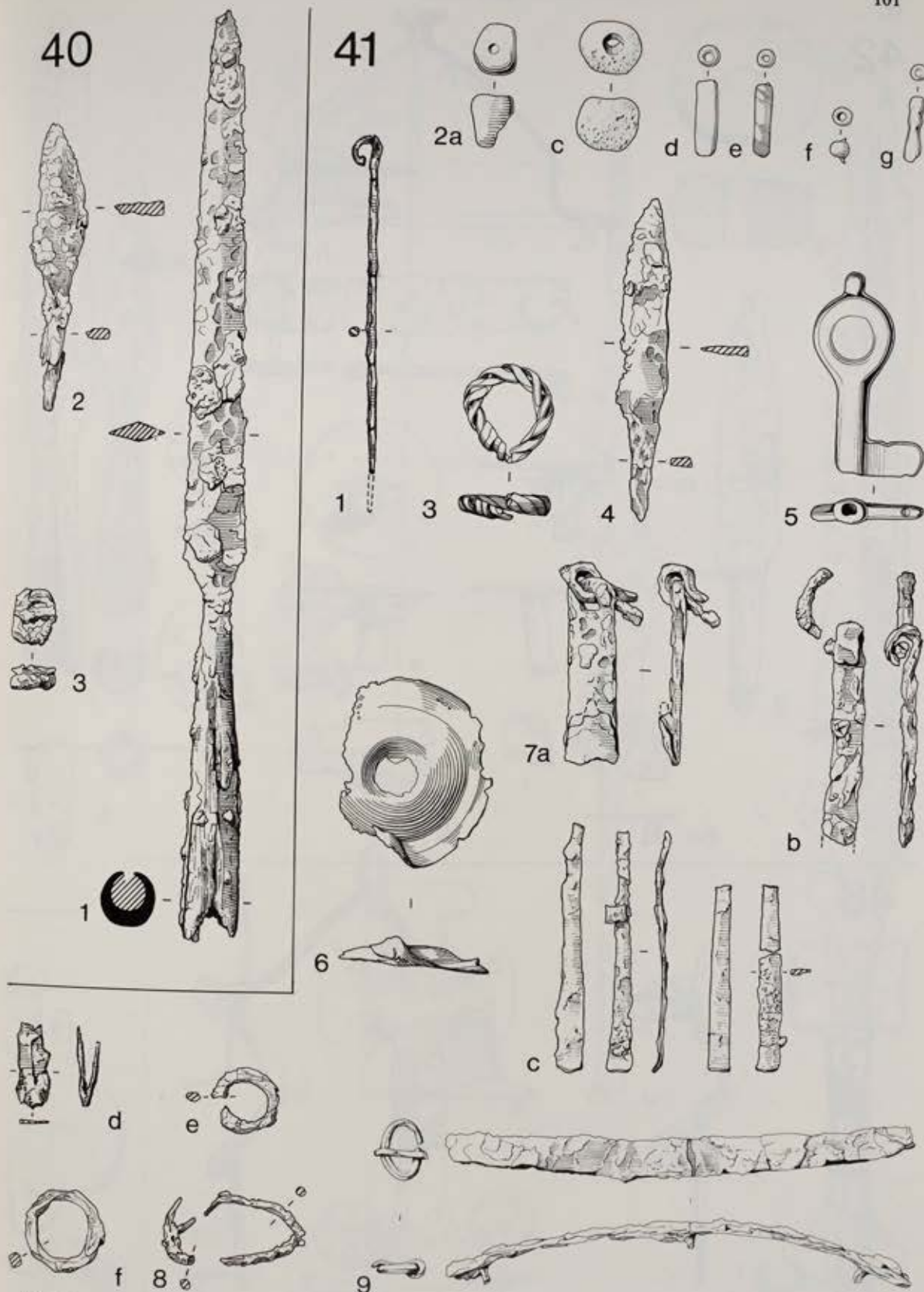
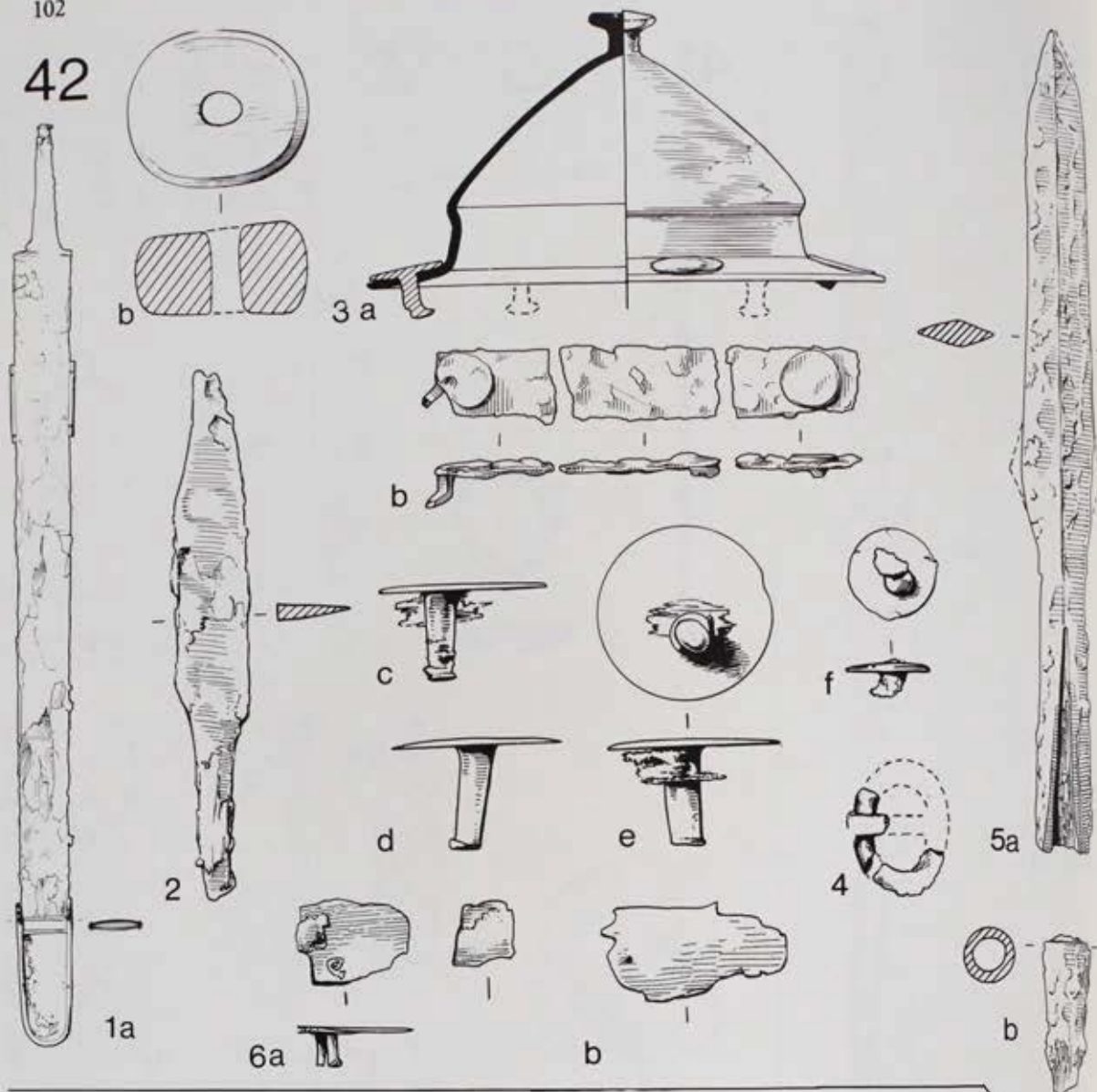


Fig 34. Alton Anglo-Saxon cemetery: finds from Graves 40 and 41. Scales - 41.2-3 and 41.5-6 at 1:1; 40.1-3, 41.1, 41.4 and 41.7-9 at 1:2.

42



43

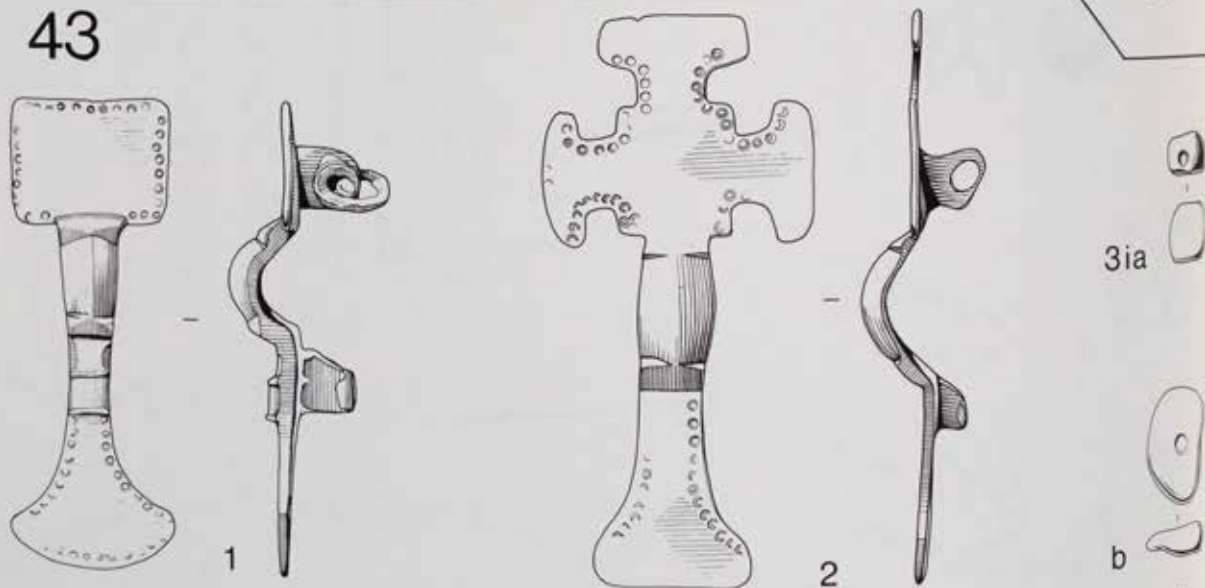


Fig 35. Alton Anglo-Saxon cemetery: finds from Graves 42 and 43. Scales - 42.1b, 42.3c-e, 42.6 and 43.1-3 at 1:1; 42.2, 42.3a-b, 42.3f and 42.4-5 at 1:2; 42.1a at 1:6.

44

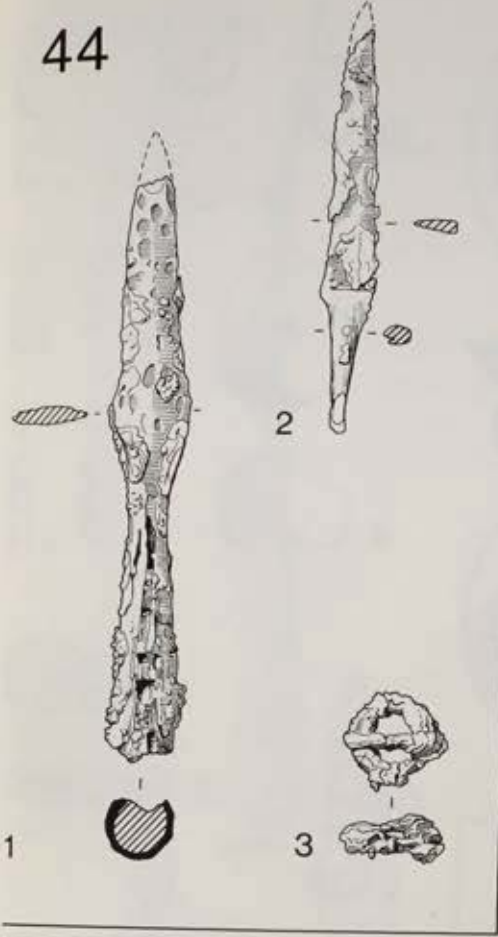


46

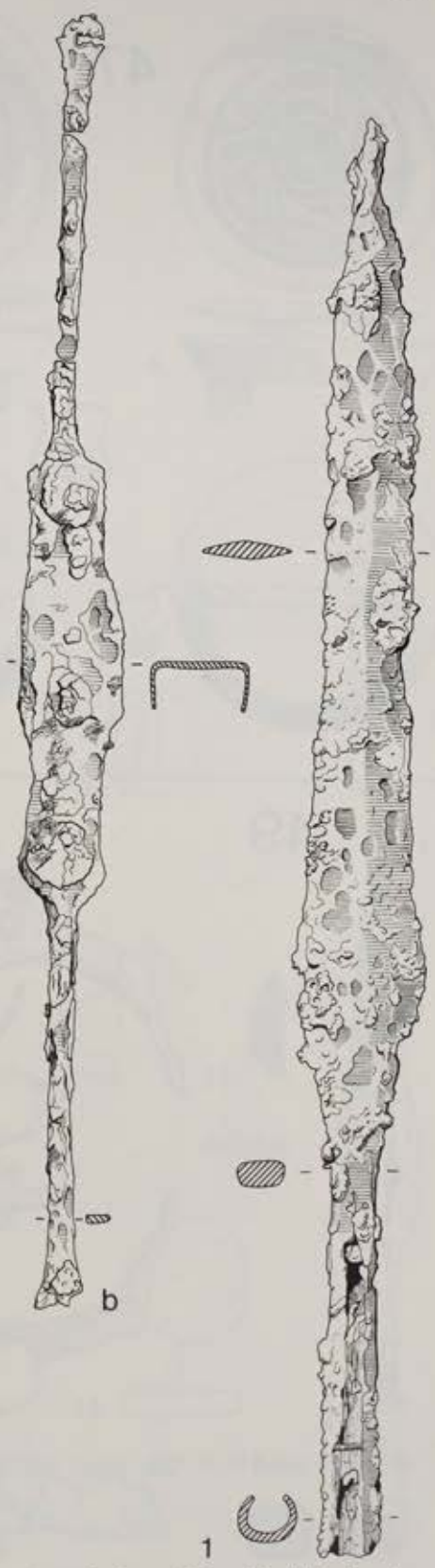


Fig 36. Alton Anglo-Saxon cemetery: finds from Grave 46.

44



45



46

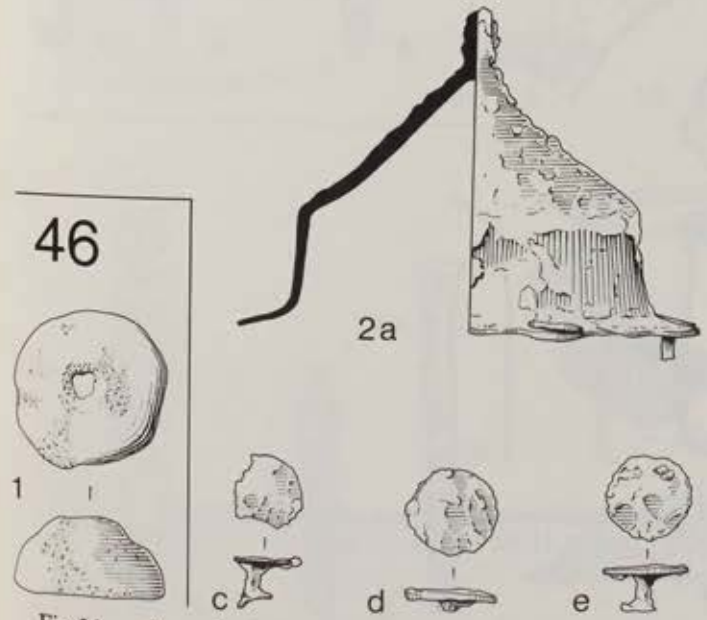


Fig 36. Alton Anglo-Saxon cemetery: finds from Graves 44, 45 and 46. Scales - 46.1 at 1:1; 44.1-3 and 45.1-2 at 1:2.

Scales - 42.1b, 42.3-c, 42.4a
1a at 1:6.

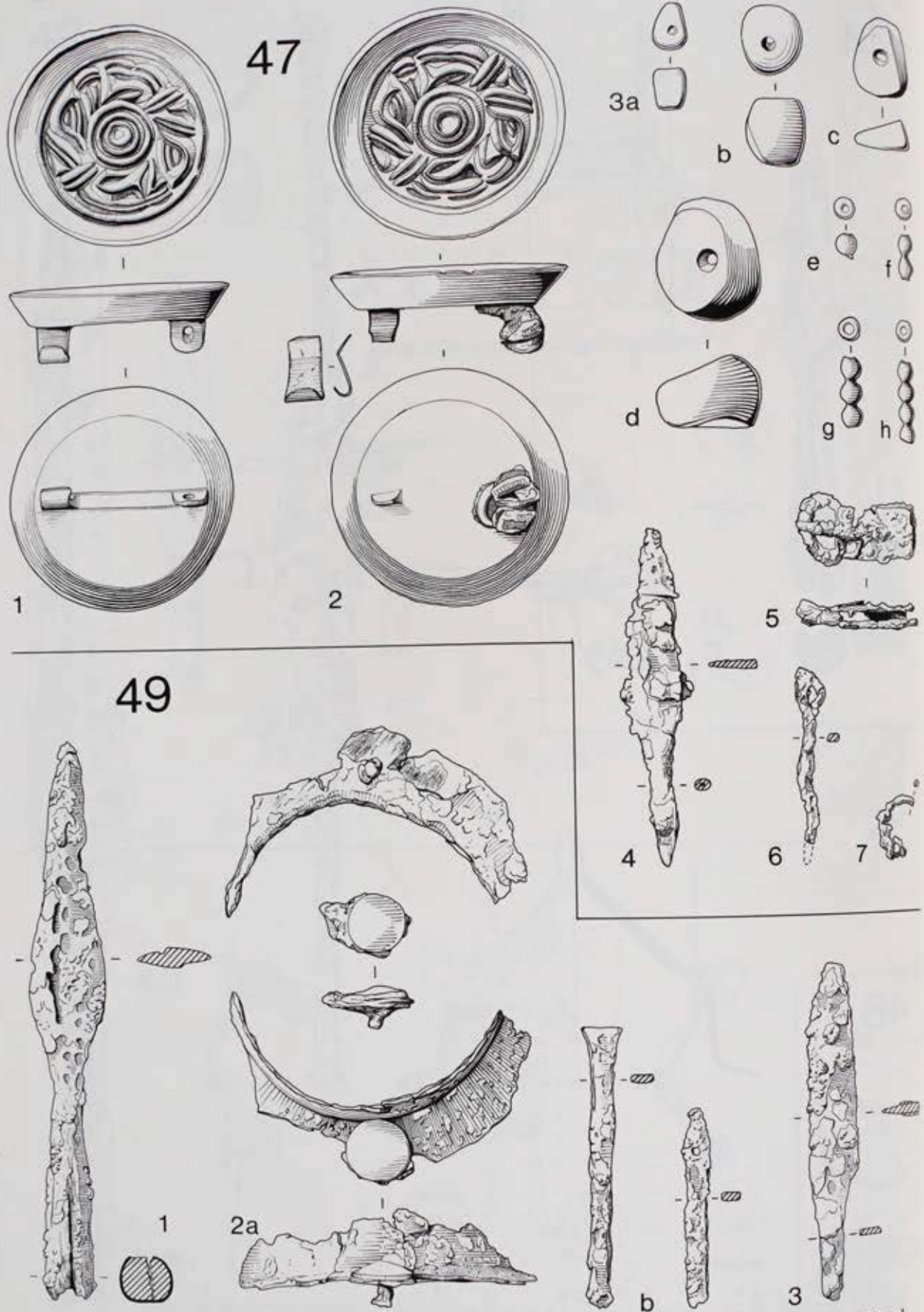


Fig 37. Alton Anglo-Saxon cemetery: finds from Graves 47 and 49. Scales - 47.1-3 at 1:1; 47.4-7 and 49.1-3 at 1:2.



Fig 38. Alton Anglo-Saxon cemetery: finds from Grave 12.

Unassociated



Fig 38. Alton Anglo-Saxon cemetery: unassociated objects U1-U15. Scales - 3-7, 9, 10 stamp and 12-14 at 1:1; 1-2, 8 and 15 at 1:2; 10-11 at 1:3.

and 49. Scales - 47.1-3 at 1:1

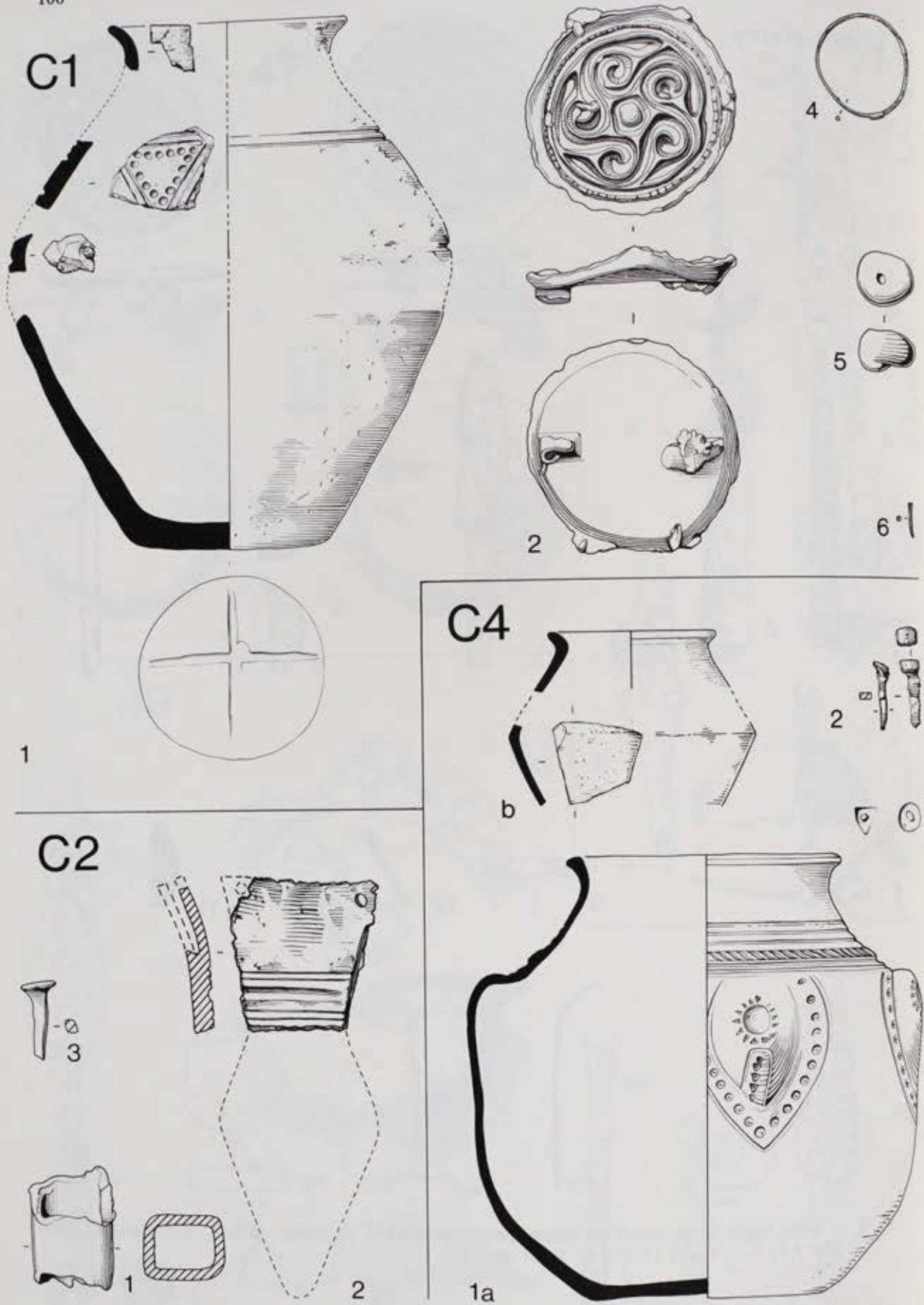
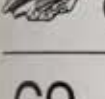
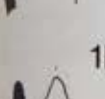


Fig 39. Alton Anglo-Saxon cemetery: finds from Cremations 1, 2 and 4. Scales - C1.2, C1.5, C2.1-3 and C4.1a stamps at 1:1; C1.4, C1.6 and C4.2 at 1:2; C1.1 and C4.1 at 1:3.

C5



C9



C12



Fig 40. Alton Anglo-Saxon cemetery: finds from Cremations 1, 2 and 4.

C7.1
C5.1

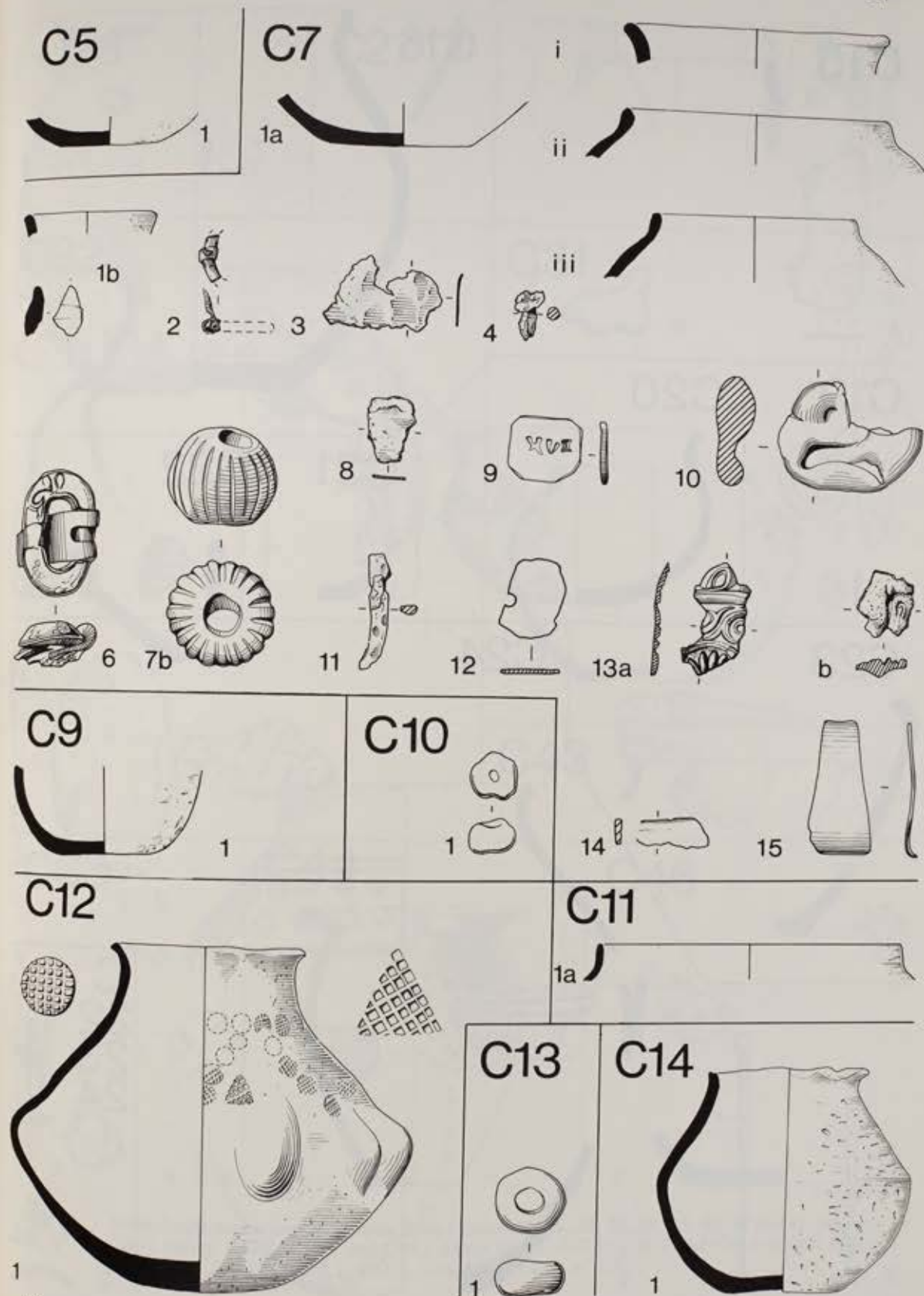
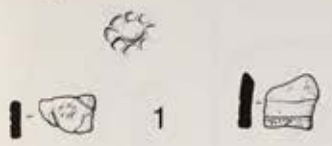


Fig 40. Alton Anglo-Saxon cemetery: finds from Cremations 5, 7, 9, 10, 11, 12, 13 and 14. Scales - C7.6, C7.7b, C7.8-10, C7.12-15, C10.1, C12.1 stamps and C13.1 at 1:1; C7.2-4 and C7.11 at 1:2; C5.1, C7.1, C9.1, C11.1a, C12.1 and C14.1 at 1:3.

2 and 4. Scales - C1.2, C1.3, C1.4
1 and C4.1 at 1:3.

CREMATION FINDS

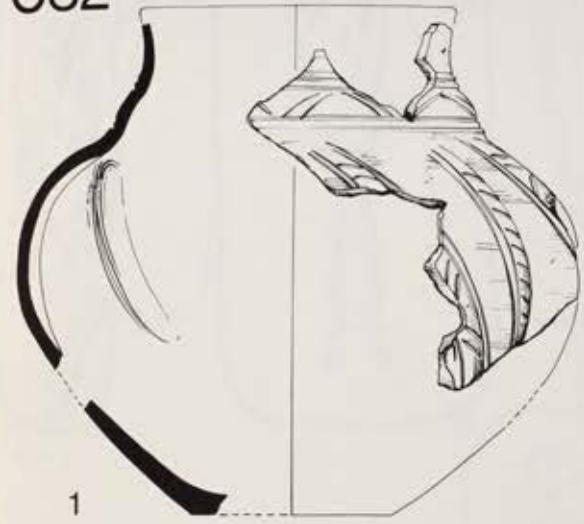
C26



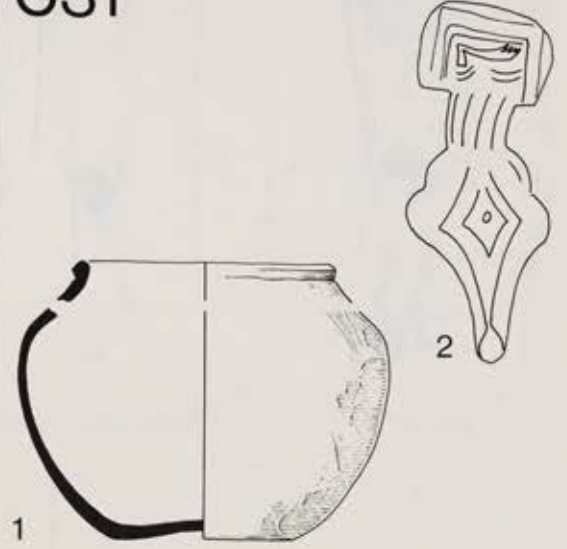
C27



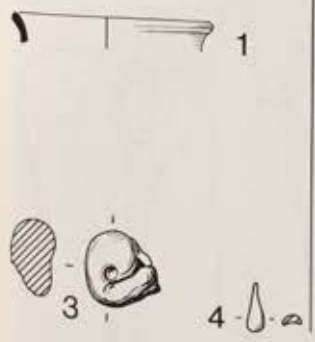
C32



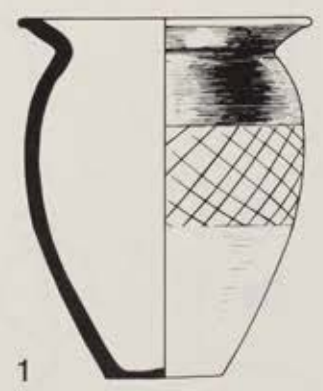
C31



C33



C44



C46

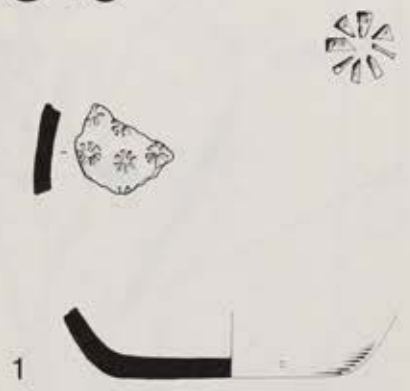


Fig 42. Alton Anglo-Saxon cemetery: finds from Cremations 26, 27, 31, 32, 33, 43, 44 and 46. Scales - C26.1 stamp, C31.2, C33.3 and C46.1 stamp at 1:1; C27.2, C32.2 and C33.4 at 1:2; C26.1, C27.1, C31.1, C32.1, C33.1, C43.1, C44.1 and C46.1 at 1:3.

16, 19, 20, 21, 22, 23 and 26...
19.1 stamp, C24.1 stamps, C24.2...
C22.1, C23.1 and C24.1 at 1:3

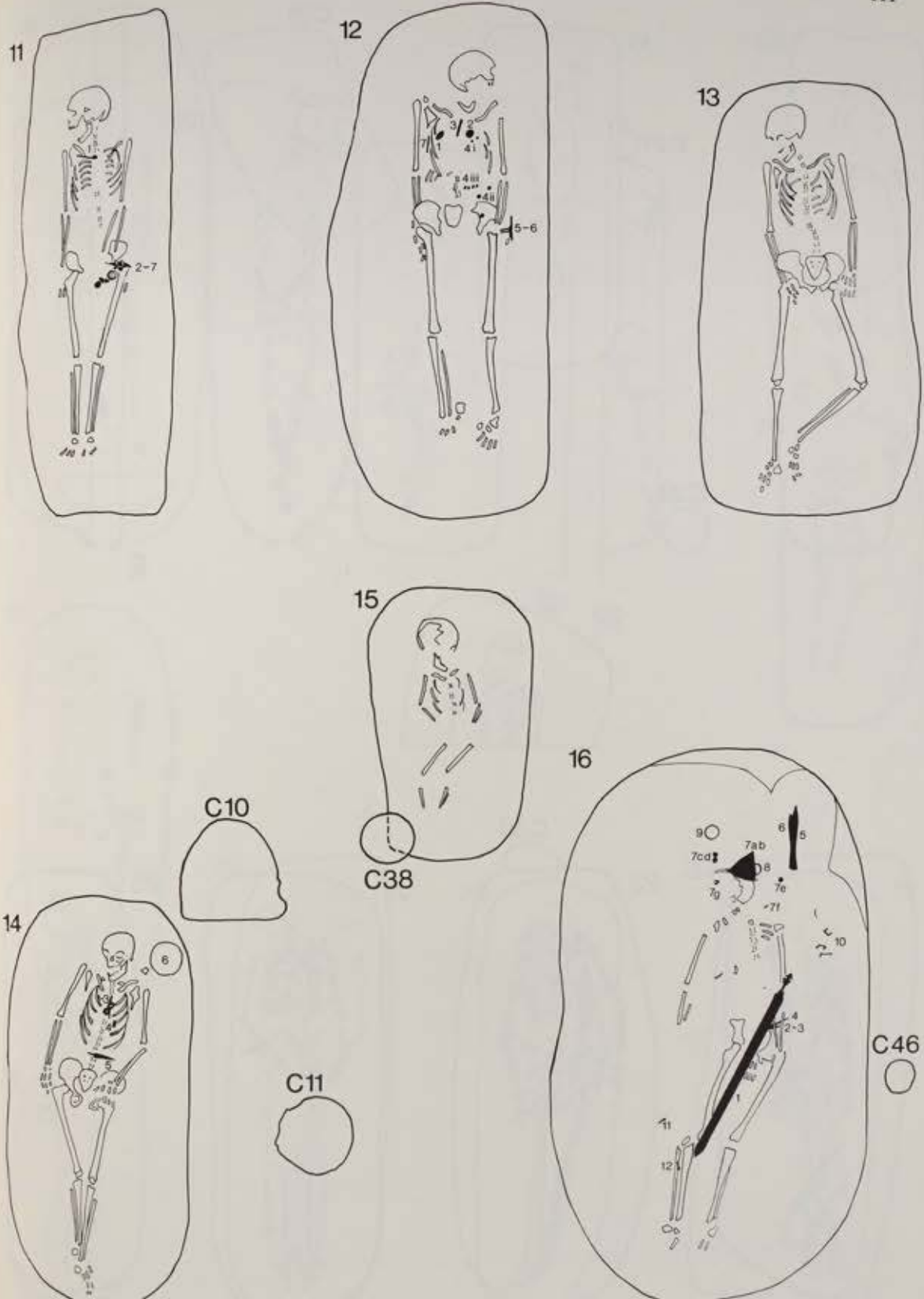


Fig 44. Alton Anglo-Saxon cemetery: plans of Graves 11, 12, 13, 14 with Cremations 10 and 11, 15 with Cremation 38, 16 with Cremation 46. Scale 1:24.

6, 7, 8 with 9 and Cremation 10

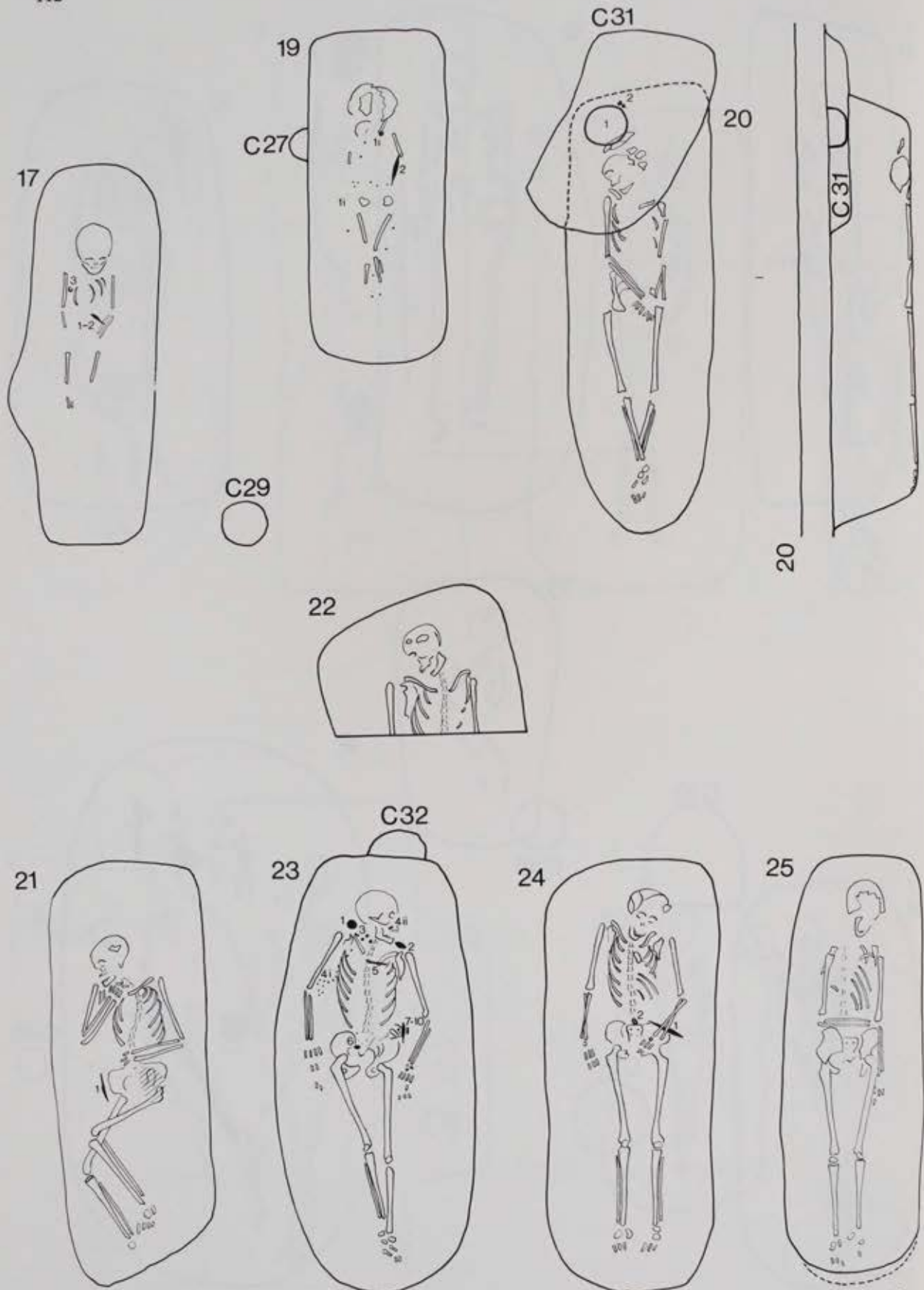


Fig 45. Alton Anglo-Saxon cemetery: plans of Graves 17, 19 with Cremations 27 and 29, 20 with Cremation 31 and section, 21, 22, 23 with Cremation 32, 24, 25. Scale 1:24.

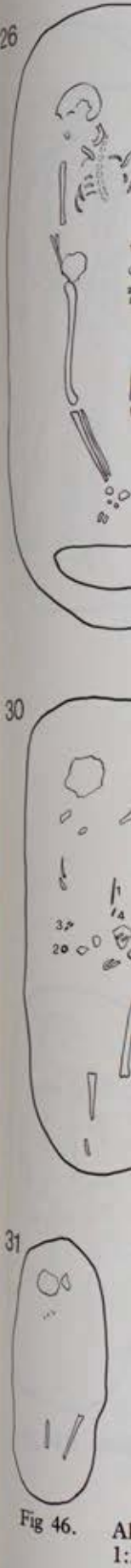


Fig 46. Alton Anglo-Saxon cemetery: plans of Graves 26, 30, 31. Scale 1:24.



GRAVE PLANS AND SECTION

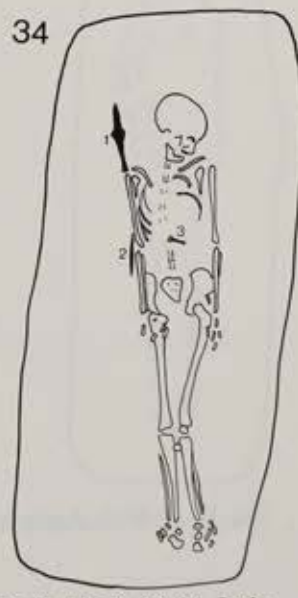
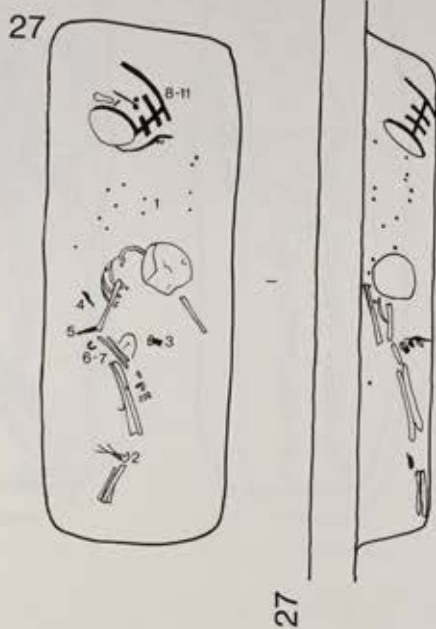
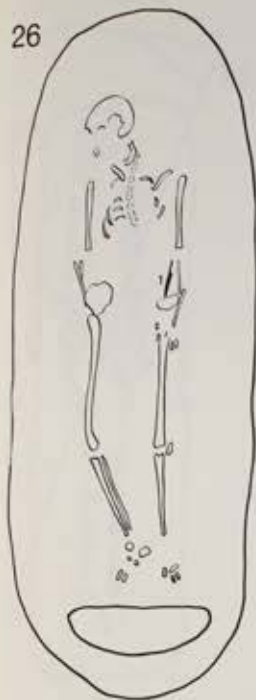


Fig 46. Alton Anglo-Saxon cemetery: plans of Graves 26, 27 with section, 28, 29, 30, 31, 32, 33, 34. Scale 1:24.

with Cremations 27 and 28, 29, 30, 31, 32, 33, 34. Scale 1:24.

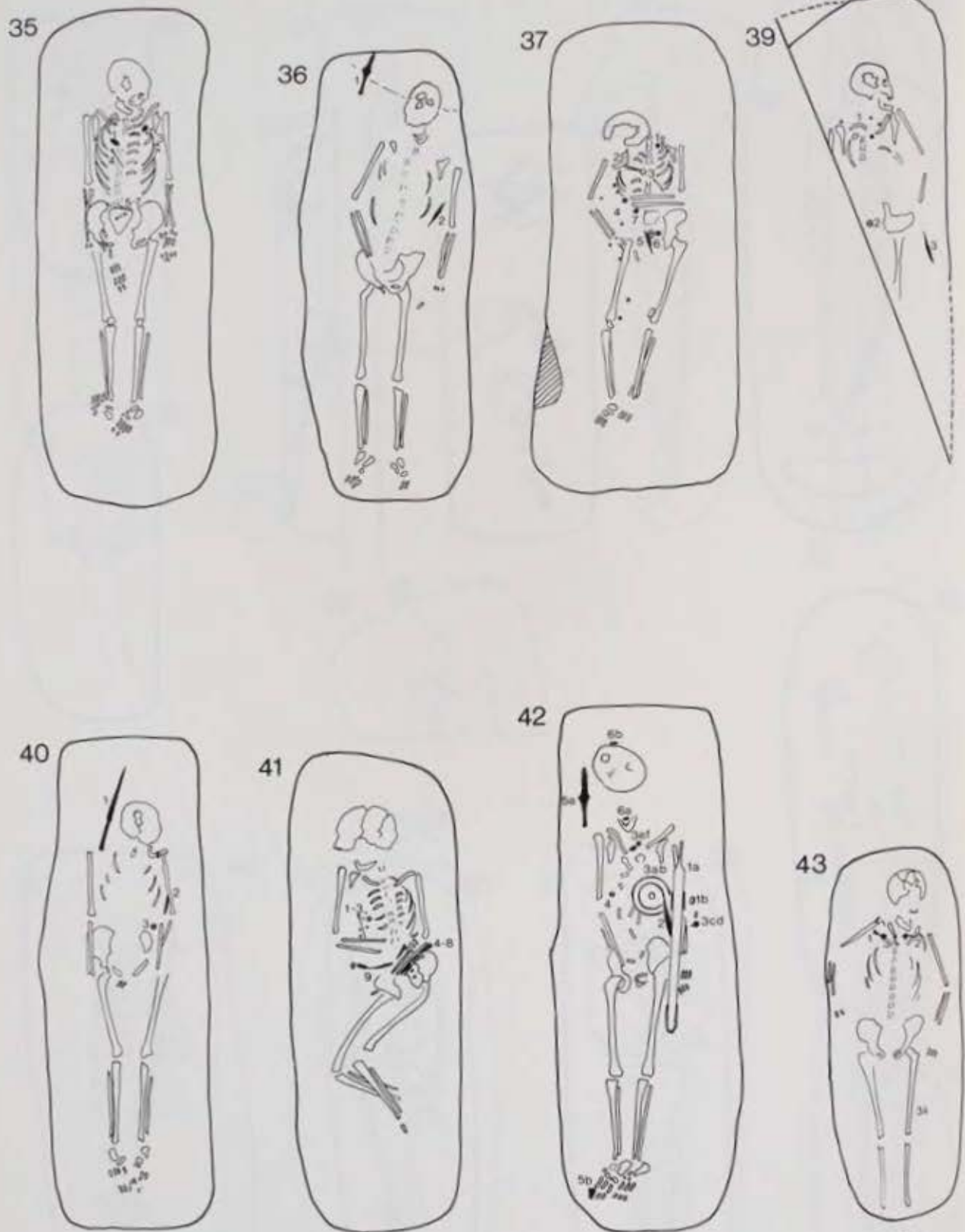
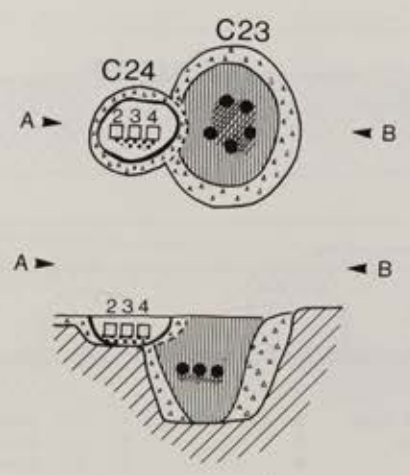
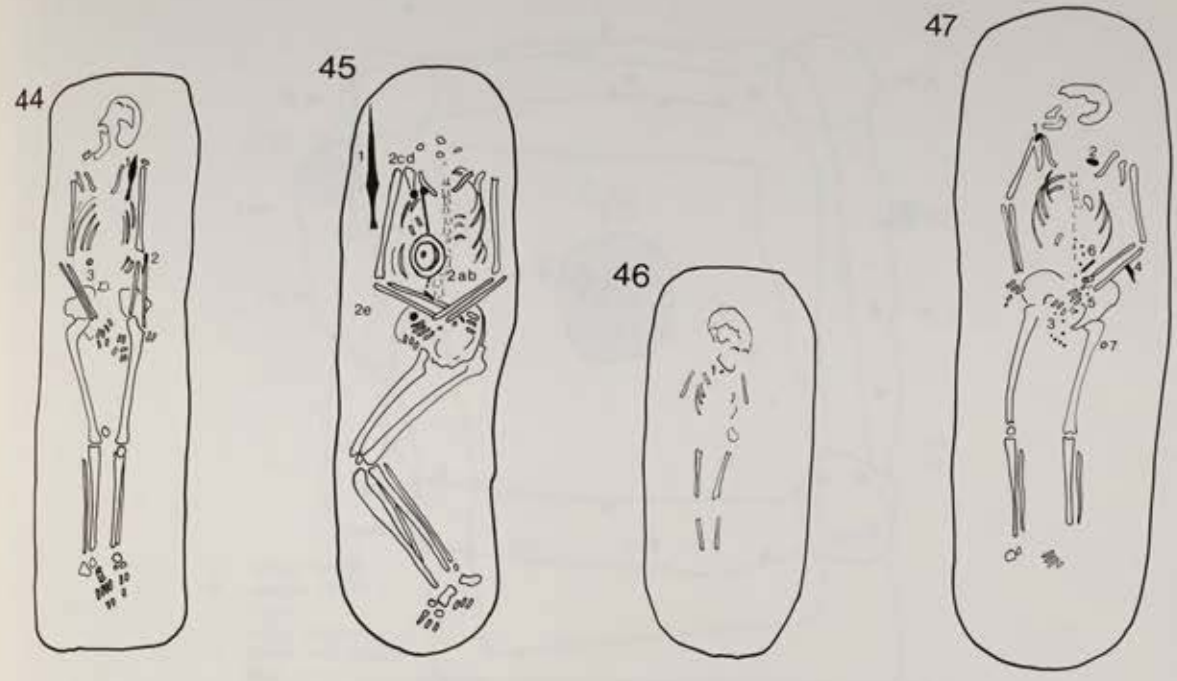


Fig 47. Alton Anglo-Saxon cemetery: plans of Graves 35, 36, 37, 39, 40, 41, 42, 43. Scale 1:24.



Fig 48.



- small finds
- ⊕ bones
- sherds fabric 2
- ⊖ charcoal
- ⋅ silt + chalk
- /// chalk
- |||| black and greasy fill

0 1ft.
0 30cm.

Fig 48. Alton Anglo-Saxon cemetery: plans of Graves 44, 45, 46, 47; and plan and sections of Cremations 23, 24. Scale 1:24.

39, 40, 41, 42, 43. Scale 1:24

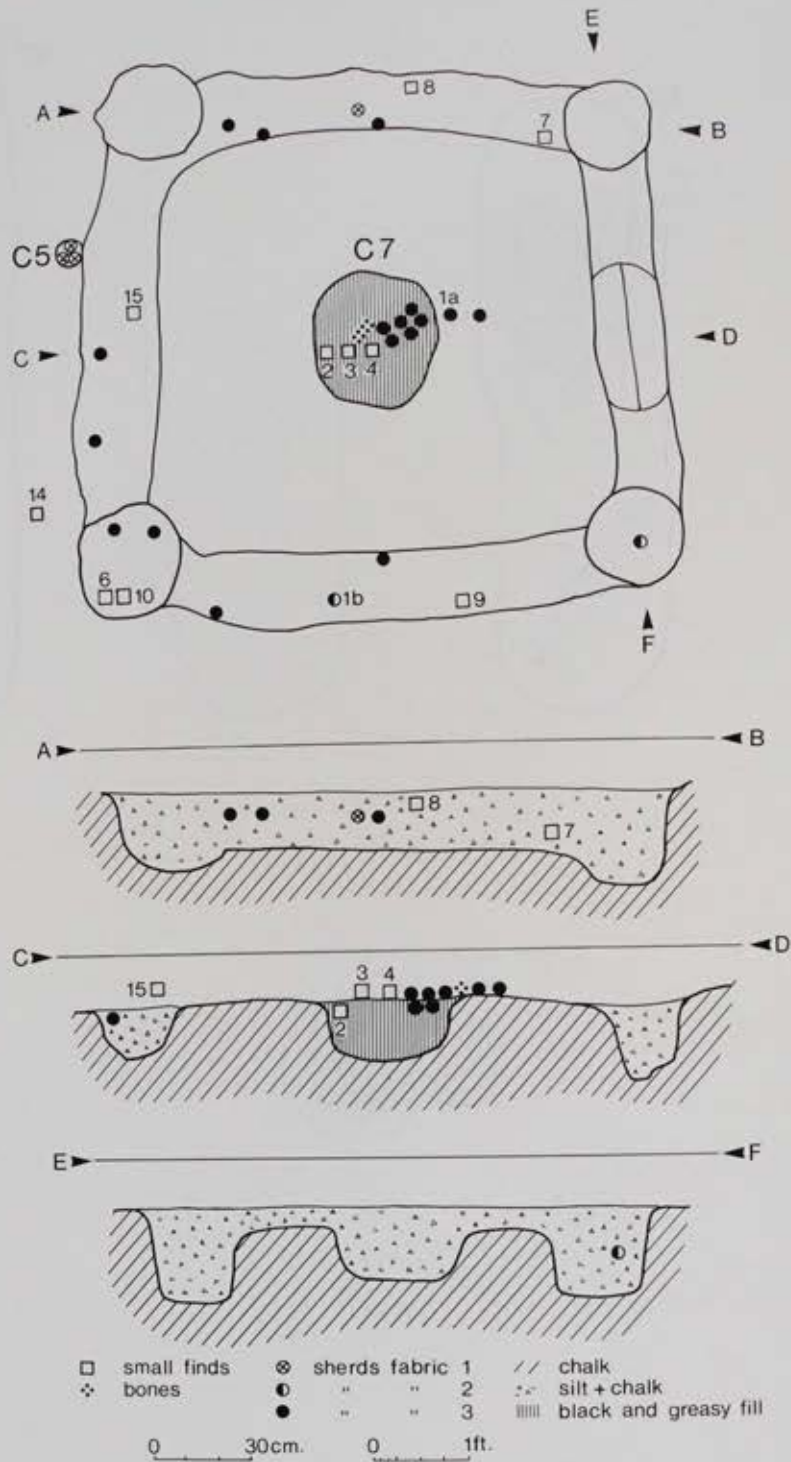


Fig 49. Alton Anglo-Saxon cemetery: plan and sections of Cremations 5, 7. Scale 1:24.

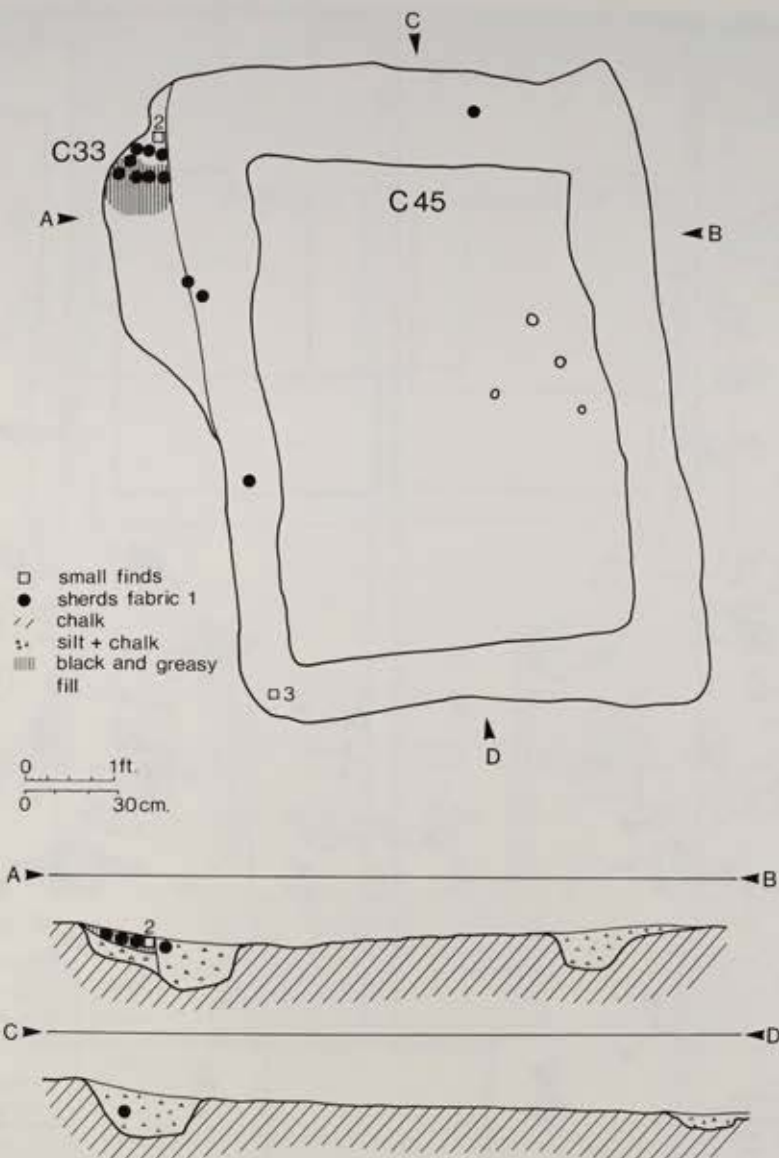


Fig 50. Alton Anglo-Saxon cemetery: plan and sections of Cremations 33, 45. Scale 1:24.

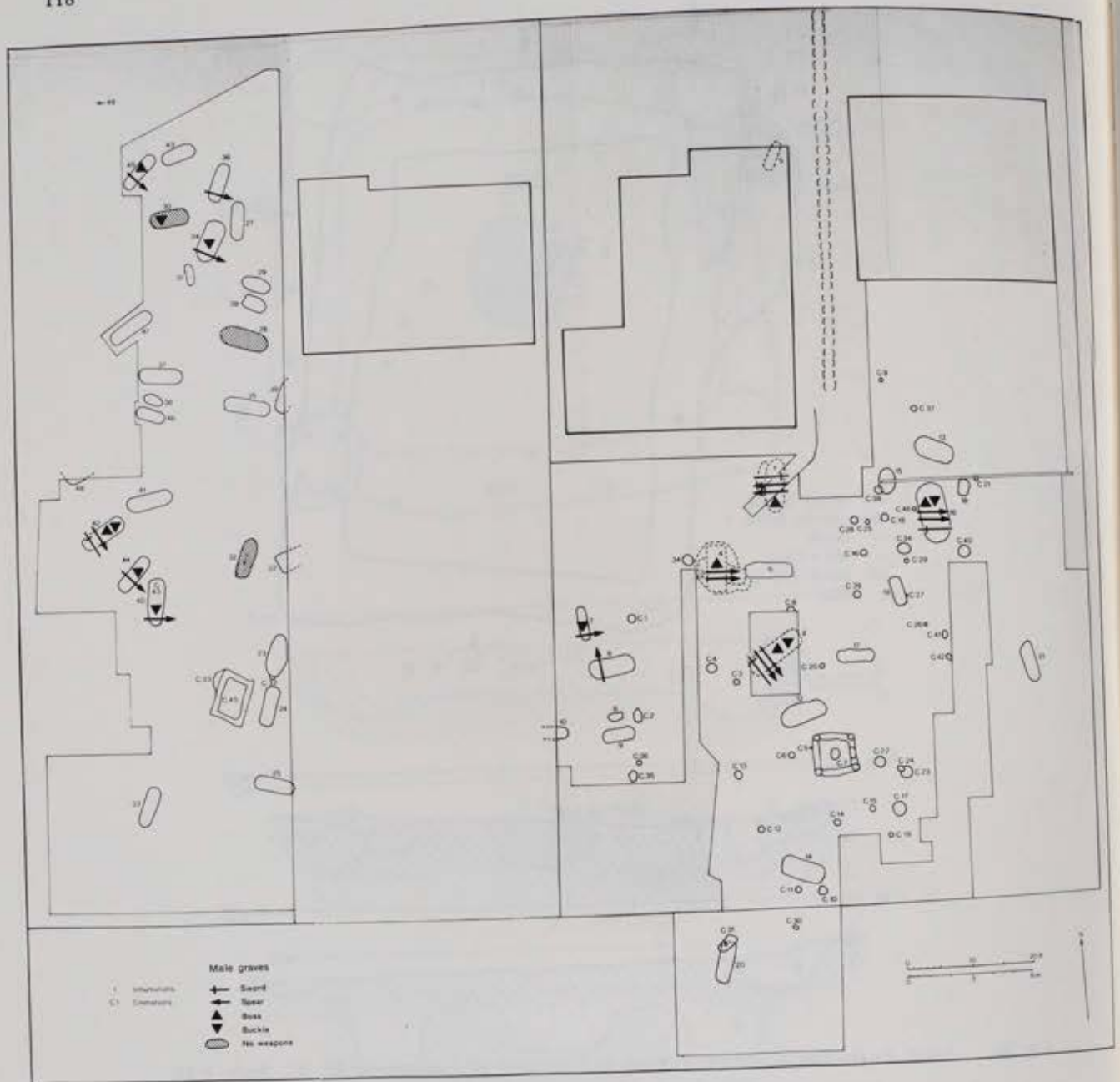


Fig 51. Alton Anglo-Saxon cemetery: distribution of graves with male grave contents.

Fig 5

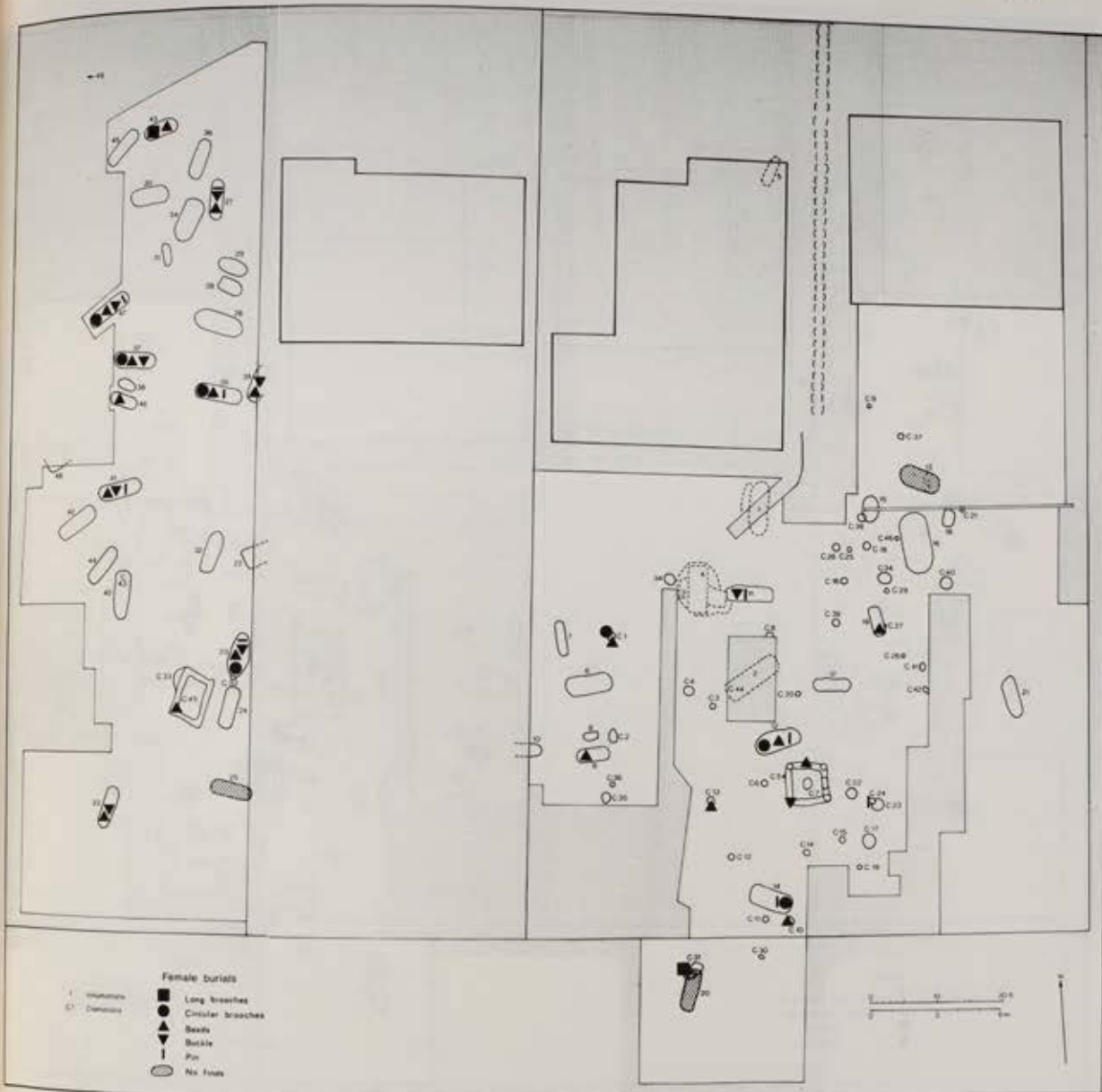


Fig 52. Alton Anglo-Saxon cemetery: distribution of graves with female grave contents.

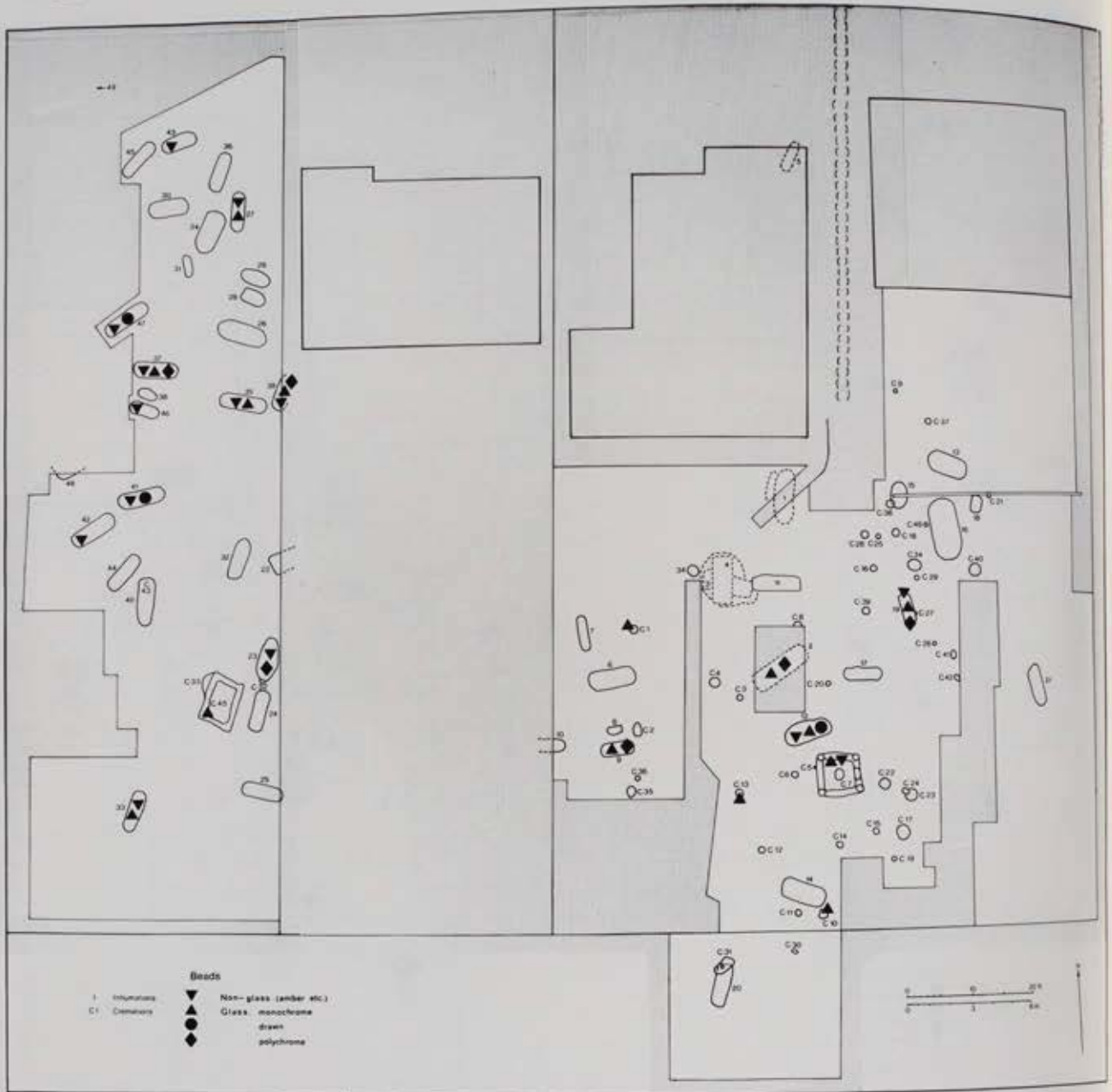


Fig 53. Alton Anglo-Saxon cemetery: distribution of graves with beads.

Fig 5

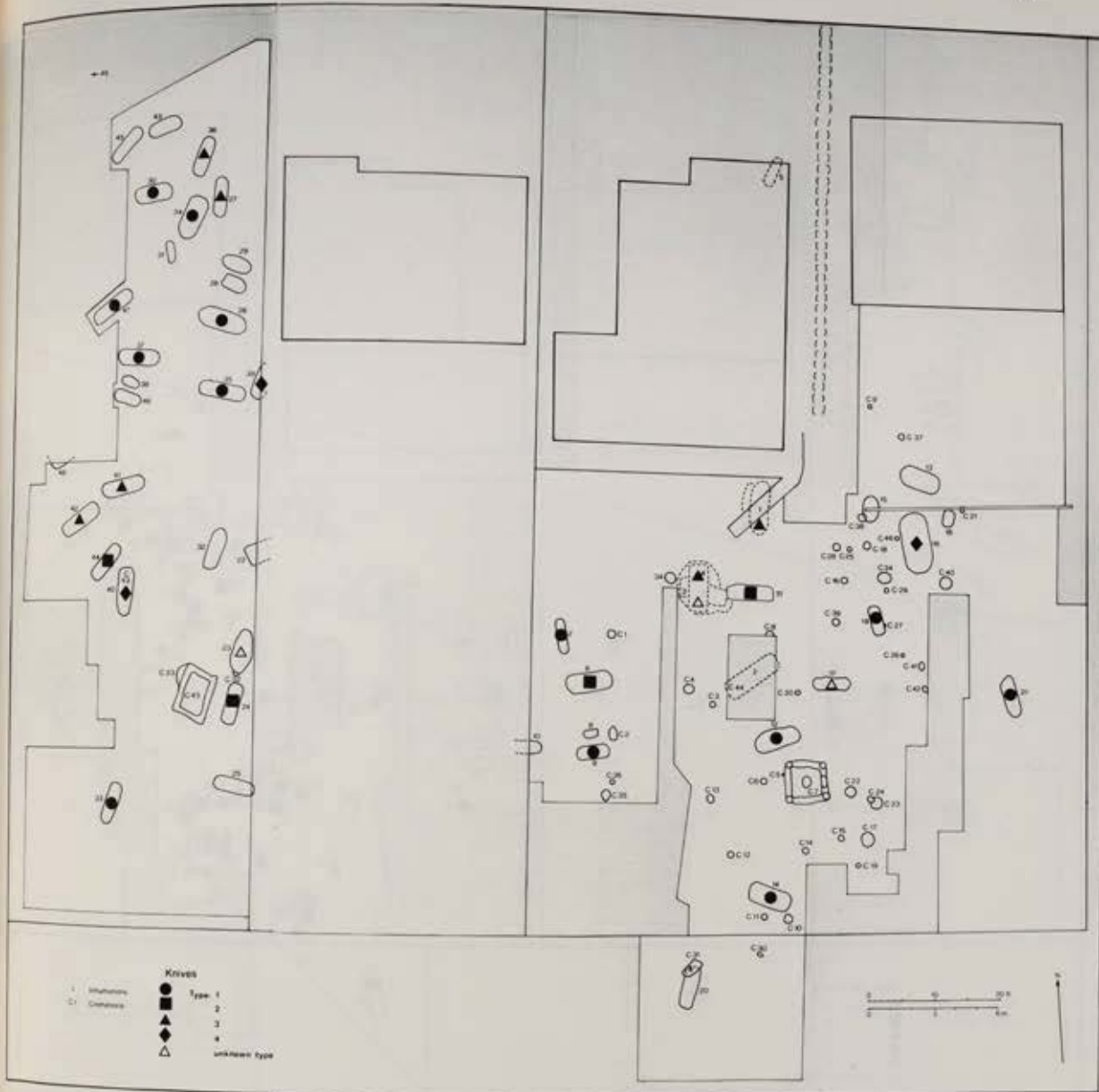


Fig 54. Alton Anglo-Saxon cemetery: distribution of graves with knives.



Fig 56. Alton Anglo-Saxon cemetery: distribution of graves by sex of burial.

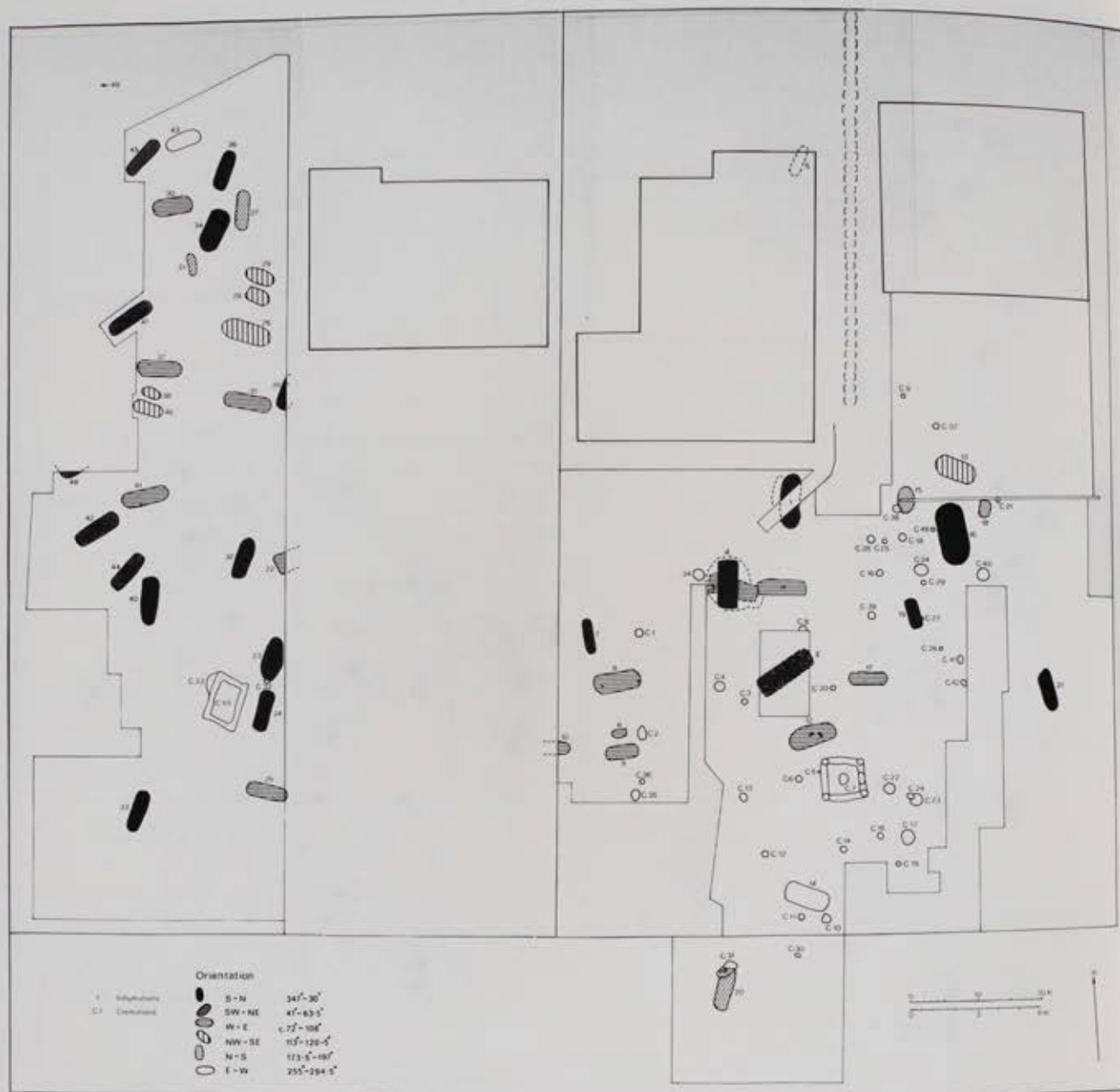


Fig 57. Alton Anglo-Saxon cemetery: orientation of graves by groups.



Fig 58.

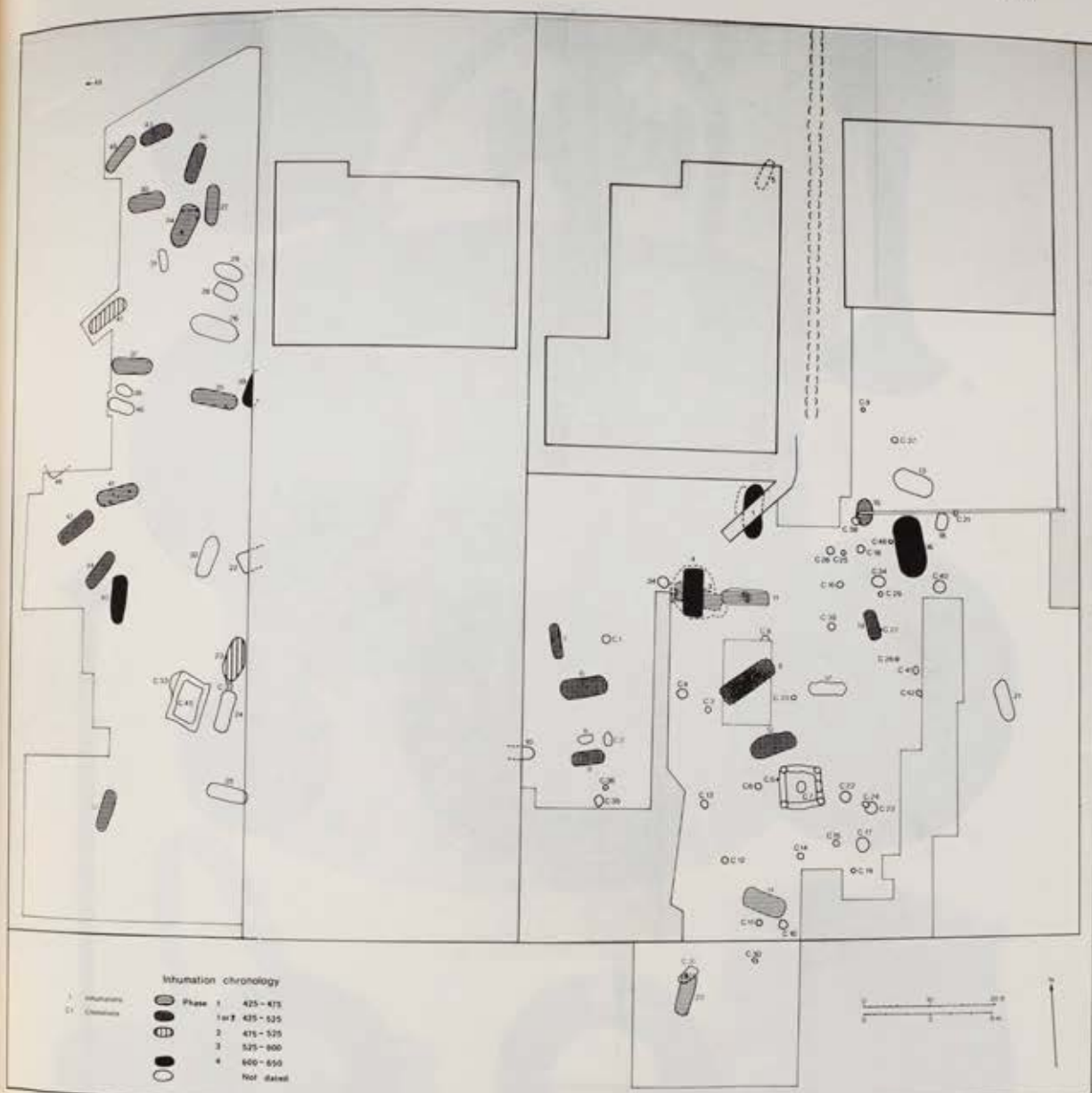


Fig 58. Alton Anglo-Saxon cemetery: chronology of the inhumation graves.

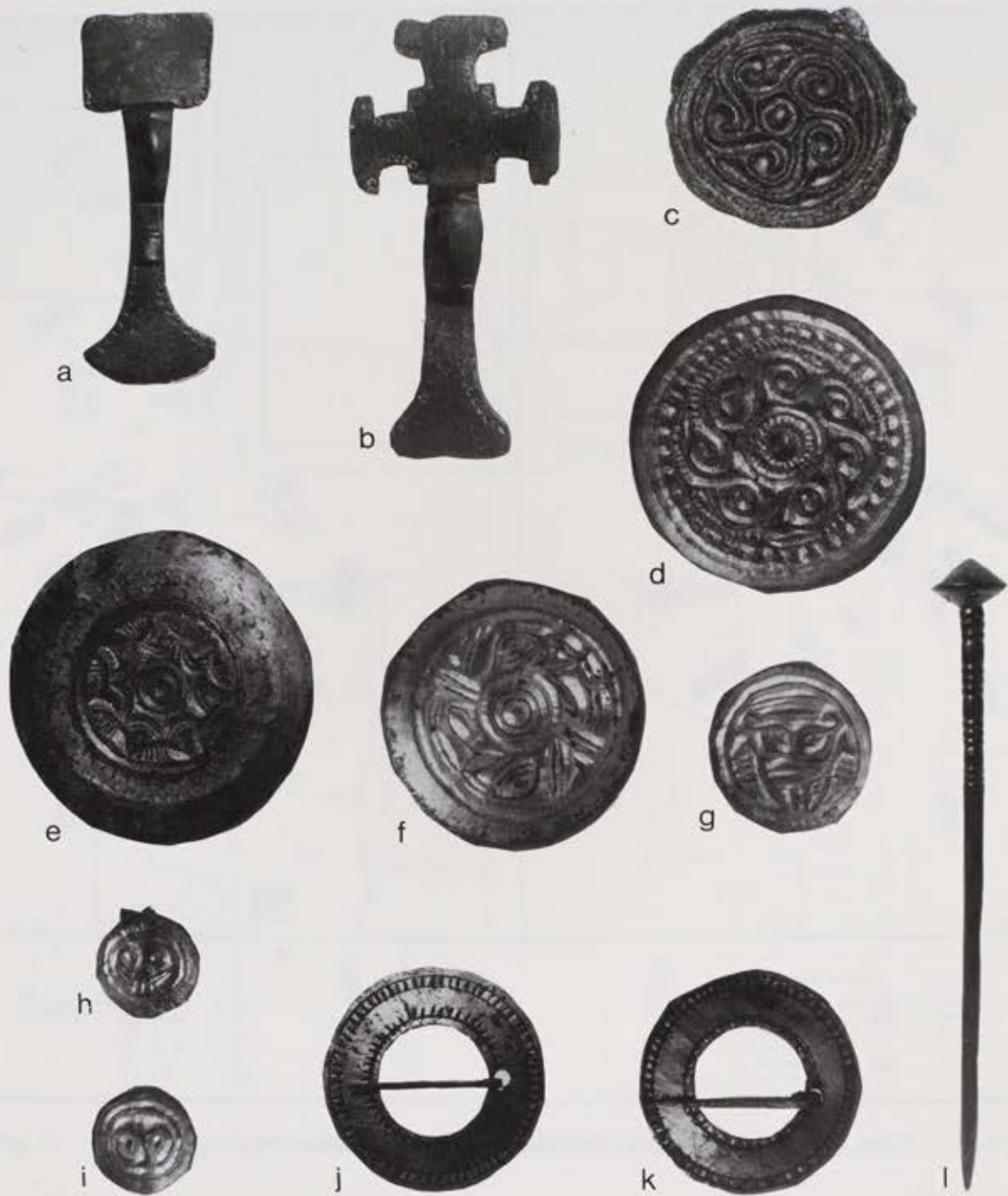


Plate I. Alton Anglo-Saxon cemetery: photographs of eleven brooches and a pin (l). a) 43.1 b) 43.2 c) C1.2 d) 12.1 e) 23.1 f) 47.1 g) 35.1 h) 37.1 i) 37.2 j) 14.1 k) 14.2 l) 35.4. Scale 1:1.

b

Plate II.
b) 2.4 c)



a



b



c

Plate II. Alton Anglo-Saxon cemetery: photographs of reconstructions of two buckets and a pot (c). a) 27.8
b) 2.4 c) 3.1. Scale 1:2.



Plate III. Alton Anglo-Saxon cemetery: photograph of Grave 16.

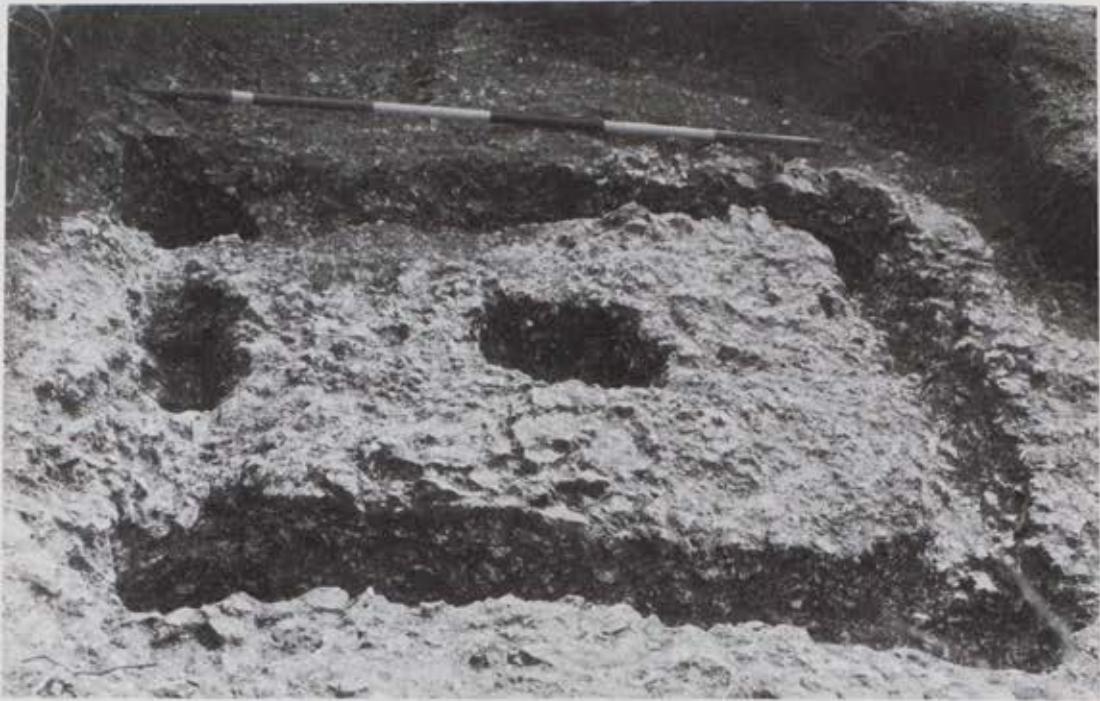


a

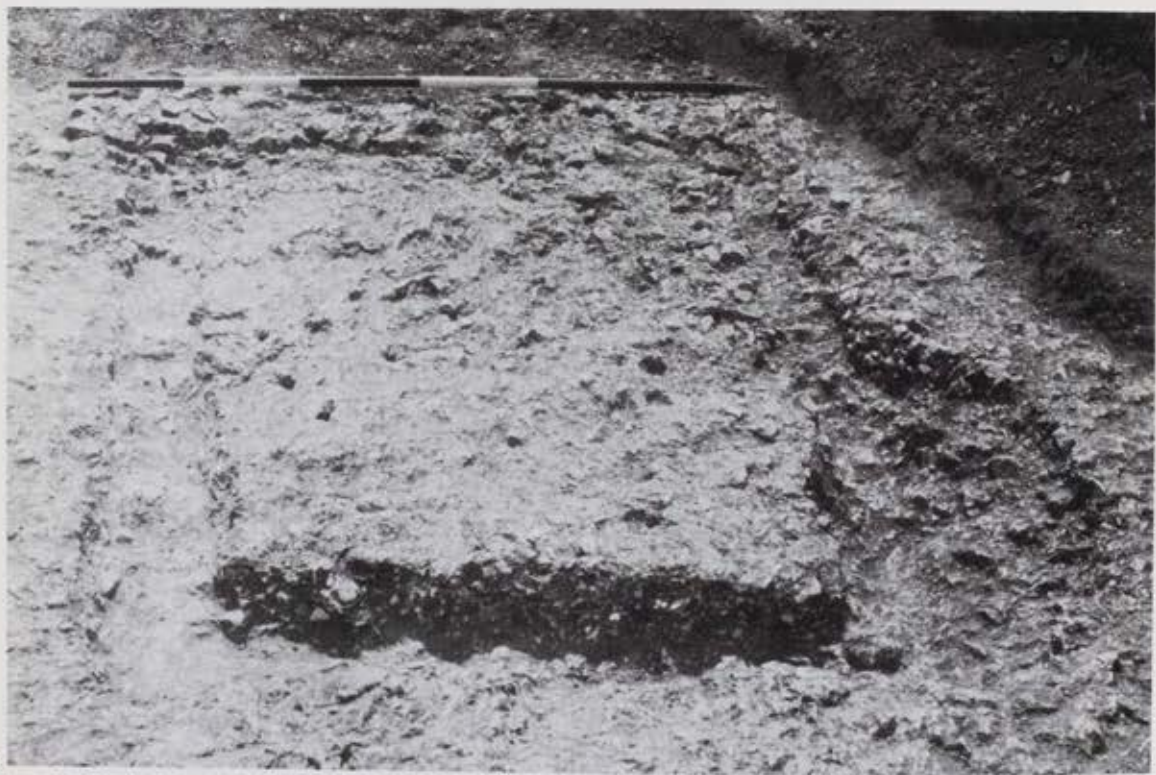


b

Plate IV. Alton Anglo-Saxon cemetery: photographs of a) Grave 27, b) Cremation 4.



a



b

Plate V. Alton Anglo-Saxon cemetery: photographs of a) Cremation 7, b) Cremations 33 and 45.

Addyman

Addyman

Akerman,

Aldsworth

Andrew,

Arnold, C

Avent, R

Azaroff, I

Barfoot, J

Bayley, J

Bayley, J

Bidder, H

Biddle, M

Bingley, V

Böhme, H

Böhner, K

Boon, G C

Brent, J 18

Brown, G

Bruce-Mit

Bullinger,

Bushe-Fox

Campbell,

Carver, M

Clark, G 19

Collins, A

Collins, A

Colyer, T V

Cook, A M

Corney A,

Cosack, E 1

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