Chapter 4: Discussion of the finds

WEAPON BURIALS AND KNIVES

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Summary

Weapons or parts of weapons were found to be associated with 25 of the 100 graves (Table 5). Weapon types consisted of shields, spears, and an arrow. At first sight, Berinsfield does not appear to be a fascinating sample for weapon studies, lacking as it does swords, axes, and other more conspicuous arms. However, closer analysis proves this cemetery to be an interesting case in its own right, both for the technical data it supplies and its information on the weapon burial rite. For instance it can be concluded that spear shafts tapered from the spearhead socket to the butt, and that most shields were between 0.40–0.50 m in diameter, with the boards being between 6–7 mm thick. A considerable number of shields had been deposited on their own, without the offensive weapons needed to make up a functional fighting-kit. The weapon burial rite shows correlations with skeletal data, in particular age and epigenetic traits. The latter suggests that burial with weapons was practised by some families, but not others. Another interesting observation is that men and women were buried with different types of knives.

Weapon types and dating

(Graves 1, 6, 11, 20, 24, 26, 28, 29, 30, 34, 43/1, 43/2 47, 51, 52, 53, 61, 69, 72, 82, 110, 121, 128, 141/1, 150/1, 161)

Spears

Spearheads may be classified on the basis of Swanton's typology (Swanton 1973; 1974) although there are a small number of problematic cases. The spearhead 20/1 (Fig. 55) is classified as B2 because of its welded socket and heavy midrib, but it shows an unusual, exaggerated ogival (concave-sided) profile more commonly found with type J. The blade 141/1/1 (Fig. 80) is a transitional case between the types C2 and D1. The long spearhead 28/1 (Fig. 57) has a socket of an E3 type and a blade of an E4 type. Apart from these, there are no unusual cases in terms of occurrence, frequency or date (Table 6).

The most frequent spearheads are small to medium-sized, ogival blades (H1 and H2), followed by leaf-shaped (C) and angular (E) blades. The Berinsfield spears are concentrated in size group 1 (overall length up to 210 mm): 9 of 18 classifiable spearheads belong to this group which is the smallest in Swanton's typology. This preponderance of small spearheads is somewhat unusual in the Upper Thames valley and Wessex.

All three iron spear ferrules (30/1/3, 34/2, 141/1/2: Figs 58, 59 and 80) are of the standard, conical pointed variety.

Table 6 Spear types

Type	Number	Graves
B2	1	20
C1	2	24, 47
C2/D1	1	141/1
C4	1	28
D1	1	110
E1	2	61, 128
E3/4	1	28
E4	1	52
H1	3	34, 53, 72
H2	3	26, 69, 161
K1	1	51
K2	1	unstratified

Arrowhead

The iron point 150/1/5 (Fig. 81) is one of the rare Anglo-Saxon arrowheads. It is asymmetrical in section, a feature characteristic of Böhner's (1958) type C which in the Trier region is dated to the 7th/8th century. However, such dates cannot always be transferred to England, and the leaf-shaped blade (similar to Böhner's type A) may indicate an earlier date.

Shield fittings

The shield bosses represent a wide variety of types (Table 7) in terms of Dickinson's computer classification of Upper Thames shield bosses (Dickinson 1976; Dickinson and Härke 1992).

The group 1.2 boss 69/2 (Fig. 68) shows features of the early group 4, such as the narrow flange and the narrow, tall profile. The boss 110/3 (Fig. 77) looks like a transitional case between groups 3 and 6. The early group 4 (*Stachelbuckel* derivative,

Table 7 Shield boss types

Group	Number	Graves
1.1	4	6, 51, 121, 141/1
1.2	1	69
2	2	29, 82
3	5	24, ?34, 43, 53
3/6	1	110
4	1	1
6	2	28, 52
uncertain	1	11

Table 8 Weapon combinations

Weapon combination	Number
spear (+ knife)	8
shield (+ knife)	7
shield + spear (+knife)	8
shield + 2 spears + 2 knives	1
arrow (+ knife?)	1

The disturbed grave 30 with iron ferrule and knife has been included in the group of 'spear (+ knife)' burials.

mainly of 5th-century date) is represented only once (1/1, Fig. 52), while the most popular, as in all of the Upper Thames valley, are the low carinated types of groups 1 and 2, of intermediate date (second half of 5th to mid 6th century). However, for an Upper Thames site, the number of later boss types, groups 3 ('Merovingian' type, early 6th to early 7th century) and 6 ('low curved cone', after Evison 1963; late 6th to mid-7th century) is surprising.

All shield grips, with one exception (short flanged grip, type Ib, 43/1) are of the short flat variety (type Ia; Dickinson and Härke 1992). The group 6 bosses are associated with the characteristic narrow, strap-like grips (type Ia2) found in the late cemeteries of Holborough and Snell's Corner (Evison 1956; Knocker 1956).

Chronology

The overall date range of the Berinsfield weapon burials spans from the mid 5th to the early 7th century. Probably the earliest burial with weapons on the site is grave 20 (with a B2 spear: 20/1, Fig. 55), closely followed by grave 1 (with a group 4 boss: 1/1, Fig. 52). Grave 6 is later than the early 5th-century broken Dorchester-type belt fitting (6/5, Fig. 54) suggests, its true date being indicated by the group 1.1 boss. The two latest inhumations are graves 28 and 52 (Figs 57 and 63), with group 6 bosses and spearheads of types C4 and E3/4.

The weapon burial rite at Berinsfield

Weapon frequencies and combinations

The proportion of weapon burials at Berinsfield is slightly higher than in other early cemeteries in the Upper Thames region and Wessex: 23% of all inhumations (including secondary burials but excluding probable charnel deposits), and 71% of all identifiable male adults, had been buried with weapons. This compares with 18% and 45%, respectively, at Abingdon I (Leeds and Harden 1936); 17% and 56% at Andover (Cook and Dacre 1985); and 20% and 59% at Petersfinger (Leeds and Shortt 1953), to give several examples from published cemeteries of similar size and date.

The weapon combinations at Berinsfield (Table 8) are largely typical and present a rather uniform picture. The total absence of swords and the high proportion of shield burials are perhaps most conspicuous. Other Upper Thames burial sites of similar size (eg Abingdon I) have produced swords, but comparable cemeteries without swords have been uncovered in Wessex (eg Andover and Harnham Hill; Akerman 1855a). The lack of swords at Berinsfield is compensated for by a large number of shields: 16 of the 20 male adult weapon burials (or 80%) were equipped with shields, while at Abingdon I, the proportion was 50%. Wessex sites with comparable shield burial frequencies are Petersfinger (60%) and Pewsey (80%; unpublished: excavation K Annable), but these differ from Berinsfield in having produced swords. Even more conspicuous is the proportion of Berinsfield graves containing only a shield (and knife): 7 of 16 shield burials (including the adolescent in grave 29), although three of these graves (11, 43, 121) had been disturbed. These burials are less frequent at most other sites in the Upper Thames region and Wessex: four in the larger cemetery of Long Wittenham I (Akerman 1860; 1861), and one each in Abingdon I, Droxford (Aldsworth 1979), Harnham Hill, Pewsey and Worthy Park (unpublished: excavation S C Hawkes). This type of incomplete military equipment is one of the arguments for a symbolic meaning of the weapon burial rite (Härke 1990).

Grave 28 produced two large spearheads, in addition to a shield and two knives. The deposition of two spearheads in one grave is not uncommon in the Upper Thames region: Dickinson (1976, Table 9) lists 15 cases among 165 burials with spears. Most of these spear combinations were associated with a shield.

Deposition of weapons

Spears had been deposited in almost equal proportions on the right (7 cases) and the left side (8 cases) of the individuals they were buried with (unknown deposition: 3 cases). This ratio, although not unique in Anglo-Saxon cemeteries, is uncommon in the Upper Thames region where spear deposition on the right-hand side is most frequent and the right:left ratio is around 3:1 (Abingdon I) or even 4:1 (Long Wittenham I). The reason for the variations from cemetery to cemetery is not quite clear. Overall, spear deposition appears to be correlated to handedness, with most spears deposited on the side of the strong hand. However, the only case at Berinsfield where this can be tested does not support this proposition: in grave 128, the spear was deposited on the left side of the body, but the buckle was found with its tongue to the right, ie for right-handed use.

Most shields at Berinsfield had been deposited horizontally on chest/shoulder (six cases) or stomach (five cases), few on head or legs (one case each; unknown deposition: three cases). The deposition pattern is very similar in other Upper Thames and Wessex cemeteries, with most shields covering chest, stomach or upper legs (Dickinson and Härke 1992, Table 17). The case of grave 69 where the shield had covered the head of the deceased is somewhat unusual in Saxon regions, and is much more typical of Anglian cemeteries.

Correlations of weapon burial: wealth, age and descent

There does not appear to be any correlation between the depth and outline of the grave (as indicators of the labour investment into the funeral) and the absence or presence of weapons in adult male burials at Berinsfield. Some weapon graves had been cut carelessly, whereas some male burials without weapons had been dug carefully to rectangular shape. Also, grave structures were not confined to weapon graves: stone lining was found in grave 76 (male without weapons) as well as in weapon burials.

Only grave orientation and burial wealth seem to show some correlation with weapon burial. Weapon burials are over-represented in the cluster with head to W; male burials without weapons are concentrated in the cluster with head to S; and male burials with unusual orientations did not produce any weapons.

As to burial wealth, adult male weapon burials contained, on average, 2.2 objects (excluding their weapons from the calculation: 3.8 objects including weapons), but male adults without weapons had an average of only 1.1 objects each. In this respect, Berinsfield conforms to a wider pattern in early Anglo-Saxon cemeteries.

The skeletal data provide more information on the background of the weapon burial rite[1]. Age at death does not show a simple correlation with the absence or presence of weapons, but the evidence suggests that the likelihood of being buried with weapons decreased with age. All male adults between 20–30 years of age had been buried with weapons; and all male adults without weapons were aged 30 years or over (excluding the problematic cases of graves 37 and 104). Weapon types are also correlated with age at death: small spears (Swanton's size group 1, ie spearheads shorter than 210 mm: graves 47, 61 and 128) and an arrow (grave 150) had been deposited in the graves of children and adolescents. By contrast, most shields were associated with adults; the youngest individual with a shield was about 16 years old (grave 29). Again, this pattern is in agreement with the general age pattern of Anglo-Saxon weapon burial.

The correlation of stature with weapon burial is less clear at Berinsfield. There was no difference in average stature between those males with and those without weapons, in contrast to sites like Abingdon I where men with weapons were, on average, *c* 0.04 m (1½ in) taller than men without weapons (unpublished report by M Harman; D Brown pers. comm.). Such a stature difference is a widespread phenomenon in the 5th/6th century in England, and may be explained in terms of ethnic differences (Germanic immigrants buried with weapons, native Britons without; Härke 1990). The only feature which points to a comparable difference at Berinsfield is the stature variation (difference between the smallest and largest value): it is significantly smaller in the group with weapons (1.68-1.79 m, or 0.11 m) than in the group without (1.61-1.85 m, or 0.24 m). This difference in variation is, again, typical of early Anglo-Saxon cemeteries, and suggests that the men buried with weapons were a more homogeneous group than those buried without weapons.

However, it is the pattern of non-metric, or 'epigenetic', traits which makes Berinsfield a key site for our understanding of the Anglo-Saxon weapon burial rite. The cemetery consisted of several distinct plots (which are discussed in more detail in chapter 5 below). It was notable, however, that a relationship emerged between the horizontal stratigraphy of a group in the SE of the cemetery, and the occurrence of epigenetic traits and weapon burials (Fig.12). The horizontal stratigraphy indicates the extent of the group, from graves 21/28 in the N, through grave 67 in the E and grave 53 in the W. The southern limit of the group has probably been lost by modern quarrying activity, although graves 161 and 164 appear to fit into the horizontal stratigraphy and may, therefore, indicate the southern extent of the group's plot. Epigenetic traits are thought to be genetically determined, and it is therefore likely that individuals who share certain traits belong to the same descent group.

Figure 12 shows the relationship between traits and combinations of traits in this sector, and the resence or absence of weapons; arrows indicate the

Table 9 Epigenetic traits and weapon burial

Burials	Epigenetic traits				Remarks
	MS	WB	SA	6LV	
With Weapons					
24				X	
26				X	
28				X	
43/1					disturbed double burial
43/2			X		
53			X		
61			X		juvenile
69			X		
Without weapons					
67	X	X			
76		X			
101		X			Figure 6
164		X			Figure 6

Key:

MS = metopic suture SA = septal aperture

WB = wormian bones 6LV = sixth lumber vertebra

horizontal stratigraphy within the sector (that is to say the progression from grave 20, the earliest male burial, to grave 28, the latest). In this sector, the pattern of traits suggests that individuals from different descent groups were buried here at the same time, indicating that they belonged to one social unit; and the incidence of weapon burial suggests that the division between weapon-burying and non-weapon burying descent groups ran within the social unit. Therefore the SE sector was not a 'family plot', but (to judge from its size) a household plot, and as such comprised individuals of different descent and different status (wealthy and poor, free and unfree).

However, as stated above, a large number of graves may have been lost to quarrying in this area, and this hypothesis can rely on positive evidence alone.

Technical observations

Spears

In the absence of undisturbed associations of ferrules and spearheads, the lengths of the wooden spear shafts could not be inferred directly. However, the distance between the spearhead and the foot end of the grave (or occasionally the side of the grave, depending on the position and direction of the spearhead) gives the maximum possible length of the shaft (badly disturbed graves omitted

Table 10 Length of spears

Grave	Max. shaft length (in m)	Max. total spear length (in m)	Remarks
20	0.93	1.18	
24	1.46	1.65	
26	1.73	1.98	
28	1.20	1.96	spearhead C4
	1.20	1.73	spearhead E3/4
34	1.59	1.85	
51	1.67	1.94	
52	1.55	2.01	
61	1.19	1.32	child burial
69	1.72	1.95	
72	?1.35	?1.56	exact position not recorded
110	0.35	0.62	from in situ position allowing for post-depositional displacement
	1.20	1.47	
128	1.25	1.43	child burial

from Table 10). The figures suggest shaft lengths between 1.20–1.70 m, and total lengths (including the iron point and ferrule) between 1.40–2.00 m. There may be several size groups within this range, but the quality of the evidence does not allow a more detailed evaluation. It is interesting to note that the child in grave 61 had a short spear, with a shaft at the lower end of the observed size range.

There were not enough wood remains to take direct measurements of the thickness of spear shafts, but the socket diameters of spearheads and ferrules provide some information, and their size relations indicate that the wooden shaft tapered towards the butt. This observation is supported by evidence from other Anglo-Saxon cemeteries (eg Westgarth Gardens, Suffolk; cf. West 1988, 13).

The iron strip 34/7 (Fig. 59) with rectangular outline and semi-circular section appears to be a spear-shaft fitting. It lay in the line of the shaft as suggested by the position of the spearhead; its measurements fit exactly the size of the spearhead

Table 11 Diameters of spear shafts

Grave	Spearhead socket (diam. in mm)	Shaft fitting (size in mm)	Ferrule (diam. in mm)
30	not extant		external 18.0
			internal 12.0
34	external 20.8	external 21.0	external 17.0 x 14.5
	internal 14.0	internal c15.0	internal ?
141	external 23.1		external 20.3
	internal 17.0		internal 15.5

socket (Table 11); and it bears remains of wood with a longitudinal grain direction. A very similar fitting was found at Finglesham, Kent (unpublished: excavation S C Hawkes), and a further parallel may be the bronze spear-shaft fitting of lozengiform shape which was found in grave 24 at Harnham Hill (Akerman 1855, 261, pl. XI:6). It is not easy to decide whether the Berinsfield fitting was decorative or functional. If it held a leather sling for throwing the spear or for tying the shaft to the hand in combat, one would have expected the fitting further down the shaft, further away from the spearhead. A leather sling at elbow height, where the fitting was found, would be useful primarily with the spear in upright ('parade' or rest) position. On the other hand, the associated spearhead (type H1) is of the small size probably used for throwing spears for which a sling would have been useful.

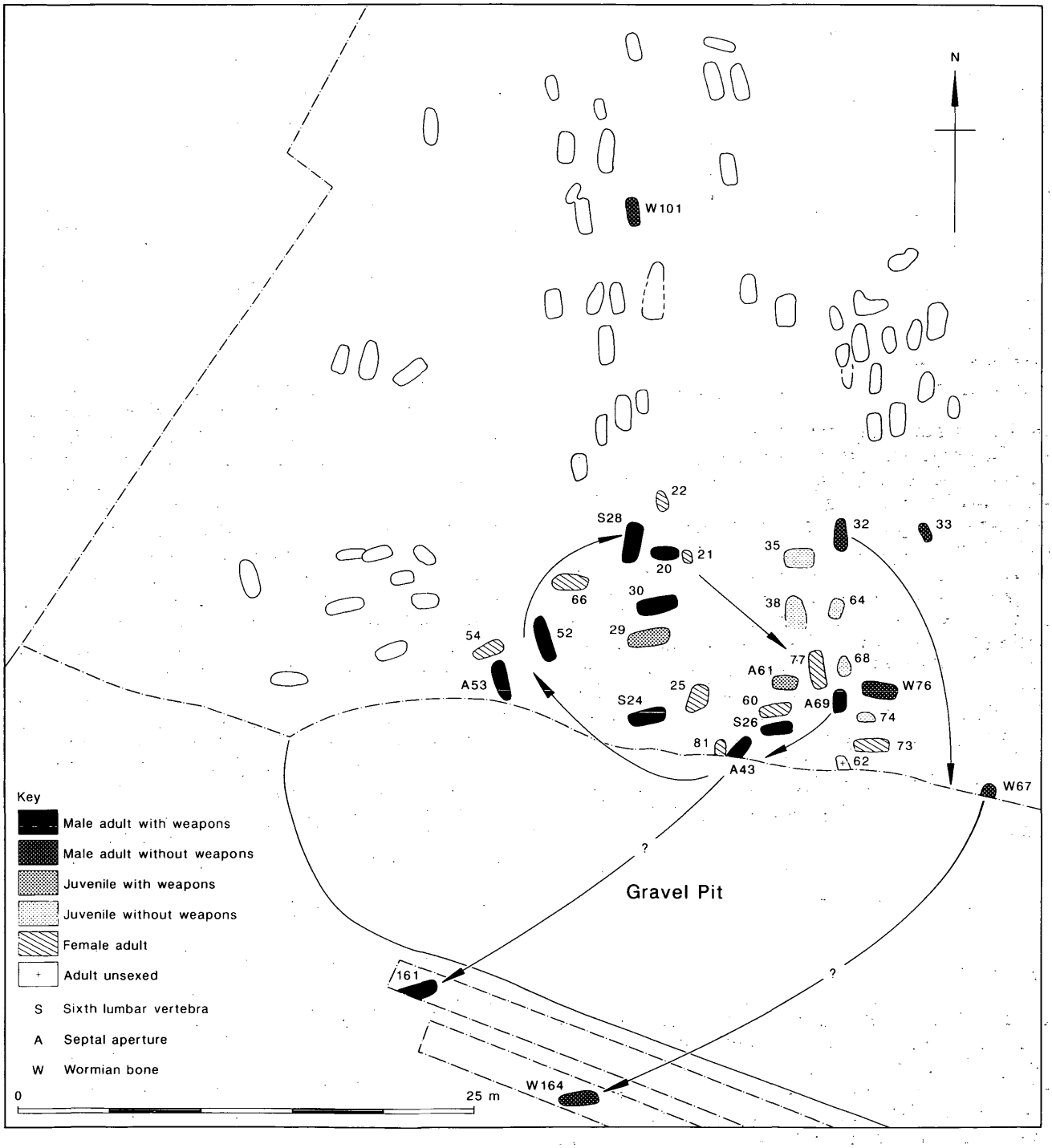

Figure 12 Weapon burials and epigenetic traits. The arrows indicate the proposed horizontal stratigraphy of male burials (for dating see Tables 5 and 33)

Shields

The inspection of bosses and their X-rays showed up some interesting details. The boss 51/2 (Fig. 62) weighs 568 g which is significantly above the average of group 1.1 bosses (*c* 400 g). The weight of other Berinsfield bosses conforms much more closely to expectations, and clearly demonstrates the development over time: a slight increase in weight from the early group 4 (392 g) to group 1 (365–485 g), followed by a steady decline in weight to group 2 (302–374 g), group 3 (295–340 g), and finally to the late, lightweight bosses of group 6 (224–241 g). The boss 110/3 (Fig. 77) which shows typological features of groups 3 and 6 also has a weight (270 g) which places it between the two groups. This decrease seems to have been the result of increasing technical skill in ironworking and boss manufacture, and it is interesting to see this improvement reflected so clearly in a local sample. However, in one respect the Berinsfield sample is slightly unusual: the proportion of bosses with inserted apex construction (shown up by an iron blob on the inside; cf. Härke and Salter 1984) is almost double the Anglo-Saxon average (Table 12). Even one of the group 6 bosses (28/3, Fig. 57) was found to have an inserted apex which is exceedingly rare in this group.

Table 12 Boss apex constructions

Construction	Graves
integral apex	1, 24, 51, 52, 53, 110, 121, 141/1
inserted apex	6(?), 28, 29, 69, 82(?)
unknown	11, 34, 43

In two cases (29/1 and 82/1, Figs 58 and 70), the iron grip was found to span the back of the boss in a central position. Such a construction is rare, and the more common off-centre position of the grip is demonstrated by the shield remains from graves 24 and 28 (Figs 56 and 57). Grips were attached to the board by two rivets, separate from the boss. The wooden handle constructions supplementing the iron grips could not be inferred because of graphite treatment.

Iron board-studs of the usual, circular type were associated with most shields. In fact, only two shields appear to have been without such studs, both from disturbed contexts (121 and 141/1). In two other cases, the rivets found may or may not have been attached to the shield board (graves 28 and 51), and two shield burials were severely disturbed (graves 11 and 43) so that the absence of board studs there is not significant. This gives Berinsfield one of the highest proportions of decorated shields, almost double the Anglo-Saxon average. The usual arrangement of iron board-studs is in two pairs on either side of the boss (graves 1 and 52; grave 53 unclear, grave 34 possible but disturbed). Some shields seem to have had fewer rivets and/or asymmetrical arrangements of studs (graves 6, 29, 69; grave 110 unclear) which is often an indication of board repairs. The absence of more elaborate board fittings (lozenges, figural appliqués, or similar) is not surprising in an Upper Thames cemetery.

In the absence of direct evidence, shield board diameters have to be inferred from the positions of board studs *in situ* (giving the minimum diameter), and from the position of the boss in relation to the edges of the grave pit (giving the maximum diameter). Taken together, the measurements suggest a range of 0.40–0.50 m (or just over) for the diameters of most shield boards at Berinsfield (Table 13). This agrees very well with figures obtained at other early Anglo-Saxon burial sites (Dickinson and Härke 1992, Table 12).

Table 13 Diameters of shield boards

Grave	Minimum diameter (in m) from board studs	Maximum diameter (in m)from grave dimensions
1	0.24	0.50
6	0.42?	0.88
28	0.68?	0.78
29	0.38?	1.02
34	0.44	0.84
51	0.59?	0.50
52	0.41	0.90
53	0.40	0.55
69	0.41	0.60
82	0.38	0.52
110	0.43	0.63

The construction of the shield boards (solid planks or laminated wood) could not be inferred clearly because of the graphite cover over most objects. Wood remains on two rivets (grip rivet 110/4, and a boss rivet from grave 141/1) seem to show single-layer wood, and there is no evidence suggesting a laminated construction.

The thickness of the board is indicated by the free shank-length of the boss rivets. These show that Berinsfield shields were mostly between 6–7 mm thick; few reliable measurements indicate a thickness outside of that range. But Table 14 also shows that the shanks of associated board studs are longer, and in some cases to a considerable extent, than those of the boss rivets. It is unlikely, for structural and practical reasons, that this means an increase in board thickness towards the edges. More likely, this is the effect of the studs holding an additional layer of organic material, either for decoration or as additional board cover or edge binding.

Table 14 Thickness of shield boards

Grave	Free shank-length (in mm)	
	Boss rivets	Board studs
1	6.1	8.4-9.0
6	≥5.6	8.0?
28	7.0	11.0?
29	6.3	7.1-8.2
51	?	≥5.4
52	?	10.0-11.0
53	≥6.8	10.2-11.0
69	6.0	7.5
82	≥3.8	7.8
110	6.7	9.7
141	8.4	-

Damages and repairs

With two exceptions, most of the observable damage can be explained as a result of corrosion and post-depositional damage. On the shield boss 121/1, all three rivet holes in the extant portions of the flange are clear, without any traces of the iron rivets that fixed the boss to the wooden board. This suggests that the boss had been taken off the board, either for repair of the old board or for re-use on a new board. The absence of board studs in this grave may support this interpretation although the head end of the grave was disturbed. There are, at least, two parallel cases: the bosses from Worthy Park grave 33 (all holes clear; S C Hawkes pers. comm.) and Abingdon I grave B69 (two holes extant, both clear; Ashmolean Museum, Oxford).

The boss 69/2 (Fig. 68) represents a less ambiguous case of repair: a small iron strip (*c* 43 x 17 mm) had been riveted against the underside of the flange next to one of the boss rivets; the repair strip had been secured by a rivet at each end. There are a number of parallel cases from Anglo- Saxon contexts, including the bosses from Bidford-on-Avon grave 207 (iron strip riveted to the inside of the boss; not mentioned or illustrated in the site publication, Humphreys *et al.* 1925), and Alfriston graves 34 and 69 (iron strips welded to the inside and the flange, respectively; Griffith and Salzmann 1914, 37, 47).

Table 15 Types of knives at Berinsfield

Type	Number	Graves
A	17	1, 2?, 6, 10/1, 11, 15, 26, 28 (2x), 51, 52,54, 56, 60?, 61, 110, 150/2
B	24	8, 24, 30, 32, 34, 42, 43?, 48, 50, 55, 57, 63, 72, 77, 86?, 91, 102, 104, 107, 122?, 125, 134, 136?, 141/1
C	4	3, 20?, 22, 133
uncertain	6	5, 47, 53, 121, 128, 130
not seen, lost	2	82, 161

Knives

(Graves 1, 2, 3, 5, 6, 8, 10, 11, 15, 20, 22, 24, 26, 28, 30, 32, 34, 42, 43, 47, 48, 50, 51, 52, 53, 54, 55, 56, 57, 60, 61, 63, 72, 77, 82, 86, 91, 102, 104, 107, 110, 121, 122, 125, 128, 130, 133, 134, 136, 141, 150 and 161)

Typology and dating

Böhner's typology of Frankish knives in the Trier area (Böhner 1958, 214-215) has long been applied to Anglo-Saxon knives, primarily because of the absence of a classification system based on English evidence. This has recently been rectified by Evison's typological scheme for the knives from Dover (Evison 1987, 113). However, the Dover typology has its shortcomings, particularly when it is used with small samples such as that from Berinsfield (53 knives) where it often proves to be too detailed. It uses the same criteria as Böhner did (mainly the shape of the point), and its six types (1-6) can easily be reduced to Böhner's four (A-D). More importantly, it ignores the massive size differences within each type, which is critical as these differences reflect differences of function, and have chronological and social significance (Härke 1989). For these reasons, Böhner's typology is applied here, but for the analysis of correlations it is supplemented by a consideration of sizes.

Three of Böhner's types occur at Berinsfield: A (edge and back both curving to the point in the median line of the blade), B (straight back, edge curving up to the point) and C (straight edge, back curving down to the point).

The most frequent type is B, closely followed by A (Table 15); both have a broad date range. The predominantly late type C (mostly 7th–8th century) is only represented by 4 instances. The majority of knives (38 out of 53) belong to size group 1 (blade length up to 99 mm), five to group 2 (100–129 mm), and only two to group 3 (130–170 mm; eight knives uncertain or not seen). The preponderance of small knives also reflects the early date of the cemetery as the proportion of larger knives (groups 2 and 3) increased during the 7th century.

Knives, gender and age at death

Several observations can be made in connection with the distribution of knife types at Berinsfield (Table 16). Böhner's type A is most frequent among males (including juveniles with weapons), whereas type B dominates in female and juvenile burials.

Table 16 Knives in relation to gender and age

Type	A			B			C			?
Size group	1	2	3	1	2	3	1	2	3	
male adults	7	2	1	4	2	1	2			4
female adults	2	1		10			1			2
unsexed adults							1			
juveniles with weapons	2									2
other juveniles	1			7						
sex and age unknown	1									

Gender-specific preferences of knife types may be unusual, but the lack of published studies makes comparisons difficult. In the Upper Thames cemetery of Lechlade (Boyle *et al.* forthcoming), male adults were equipped predominantly with type C knives, female adults predominantly with type A; the pattern in juvenile burials was inconclusive. While the different male preferences at Berinsfield and Lechlade may be explained in terms of chronology (Lechlade continuing throughout the 7th century when type C was more frequent), the different preferences in female burials (straight-backed type B at Berinsfield, curved-back-and-edge type A at Lechlade) are difficult to interpret. They can hardly be due to chronological differences (both types being roughly contemporaneous), nor are they likely to be the consequence of differences in function (assuming that the women in both locations used knives for similar purposes). The different patterns may, therefore, suggest that preferences in knife types varied locally, and may not always have had functional significance.

The sizes of knives (or, to be more precise, their blade lengths) are also differentiated by gender and age, and they show a pattern which is paralleled in other Anglo-Saxon cemeteries. Juveniles at Berinsfield were buried with knives only of size group 1; female adults with knives of groups 1 and 2 (the latter rare, but many knives in group 1 being close to the upper size limit for this category); and only male adults with group 3 knives as well as shorter ones. The 'large knives' of group 3, with a blade length of 130 mm and over, are restricted to burials of male adults and date mostly to the 7th century (Härke 1989). However, at least one of the two Berinsfield cases is earlier: the one in grave 6 was associated with a group 1.1 shield boss (late 5th/early 6th century), while the date range of grave 30 is broad and may well encompass the (early?) 7th century.

Table 17 Location of knives

	Male adults	Female adults	Juveniles with weapons	Other juveniles
head area			1	
chest		1	1	2
stomach	3	4		
left waist/arm	11	9		3
right waist/arm	4	1		4
legs/feet area	2	2	1	
under body	2		1	

Locations of knives in the graves

From the positions in which knives have been found, it is clear that some had probably been worn on the body (stomach and waist area), while others had been deposited separately (head and leg areas). For the knives found on the chest and under the body, the mode of deposition (worn or separate) cannot be decided.

The differentiation by gender and age is less marked than for other aspects, but some preferences can be inferred (Table 17; uncertain and disturbed cases omitted). About half of all knives in male and female adult burials were found at the left hip or waist, many of them inside the left arm and pointing to the head end of the grave. Just under half of the knives in juvenile burials were located at the right hip or waist, but the left hip/waist position was almost equally frequent. The lack of published interest in this aspect makes comparisons difficult. The preferred knife position at Berinsfield is certainly the most frequent in Anglo-Saxon graves: in a sample of over 600 juvenile and male adult burials, 46% of knives were located at the left hip, waist and/or inside the left arm (Härke 1992, Fig. 22). It may well be that this deposition pattern is the result of the preferred mode of carrying the knife in a sheath suspended from the belt at the left waist.

Technical observations

Traces of organic material from sheaths and grips could not be observed because of the graphite cover. The X-rays do not suggest any unambiguous cases of composite blades, but they show up two cases of knives with rivets. The knife 52/5 (Fig. 63) has a rivet head(?) on one side of the blade near the shoulder, quite possibly from the sheath, and the knife 53/4 (Fig. 64) has a rivet through the tang, probably to fix the wooden or horn grip to the iron tang.

THE BROOCHES
by Anne Dodd

(Graves 5, 8, 18, 22, 35, 42, 49, 54, 58, 59, 60, 63, 64, 66, 73, 77, 83, 91, 102, 104, 107, 125, 130 and 150)

Fifty brooches were found at Berinsfield, 48 of which came from 24 graves while two were unstratified. The unstratified brooches are considered in a separate note at the end of this section and are not included in the general analysis.

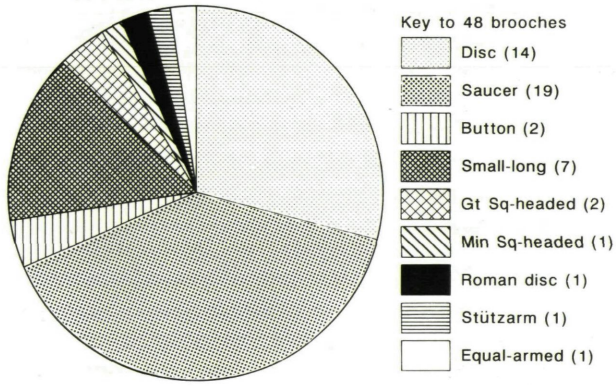

Figure 13 Pie-chart of the numbers and proportions of brooch types

The brooches were studied by Dr Tania Dickinson shortly after excavation, and were incorporated in her thesis (Dickinson 1976). The descriptions, classifications and dating which follow are based on her work and I am most grateful for her help with this report. Dating of brooches and assemblages, unless otherwise referenced, is taken from Dickinson 1976 Volume II, Catalogue number 55, Dorchester VI Berinsfield Oxon. Dr John Hines has contributed a separate report on the square-headed brooches from graves 77, 102 and 107 (see below).

The brooch assemblage is dominated by disc and saucer brooches, which is typical for the Upper Thames region, and together with the two button brooches these account for 73% of the total. Figure 13 shows the types and proportions of brooches found.

Just over half the skeletons identified as adult females at Berinsfield (17 out of 31) had been buried with brooches; in addition, brooches were found with 6 out of 34 burials of children (individuals aged less than 15 years). The burial in grave 104 had a non-matching pair of small-long brooches, but was identified from skeletal data, with reservations, as a male (Harman, this volume).

The position of the brooches, and the evidence from textile remains found on some of them, generally supports the view that brooches were used to fasten a tubular, untailored 'peplos-type' garment at the shoulders (Owen-Crocker 1986, 38–9; Cook and Dacre 1985, 73). Brooches occurred at or very near the shoulders in 17 of the 24 brooch burials. Grave 77 had a saucer brooch and a disc brooch at the shoulders and a third, a miniature square-headed brooch, at the waist — perhaps attached to a belt or pouch. In grave 64, the burial of an infant of 1–1.5 years, a *Stützarmfibel* was found on the upper chest, associated with a copper alloy chain, beads, spangles and a perforated Roman coin which may have formed a necklace (see Boyle 'The beads', this volume). The apparently anomalous brooch positions in several graves probably resulted from disturbance (grave 59) or from the position of the skeleton, propped against the sides of the grave (grave 35) or crouched (grave 83).

In some graves the position of brooches and pins, and the preservation of textile, may make a more detailed reconstruction of dress possible. Textile remains were found on 27 brooches and textiles are discussed in more detail below (Crowfoot, this volume). In many cases, traces of tablet-woven textile were found on the backs and pin attachments of shoulder brooches, implying that they were fastened through a decorative tablet-woven border or braid (see Table 26: graves 42, 49, 54, 66, 73, 91, 104, 107). Textile remains quite frequently occurred on the front of brooches (Table 26: graves 5, 49, 60, 64, 66, 77, 91, 102, 107), implying that the brooches had originally been covered by an outer garment.

In several cases (graves 64, 66, 77, 102) textile on the front of the brooches appeared to be tabby-woven flax fibres, which may suggest burial in a head veil. The brooches in graves 5 and 91 had traces of tabby-woven flax fibres on the front and both women also wore a ring and pin on the shoulder, which probably functioned as a fastener for a head-dress or cloak. Tabby fibres were also preserved on the pin in grave 5. A similar reconstruction may be suggested for the individual in inhumation 73, who had a small saucer brooch on her left shoulder, a pin in the corresponding position on her right shoulder, and a second small saucer brooch lower on her right chest. In this case, however, there were no textile remains on the front of the brooches, or on the pin. Grave 107 had traces of coarse twill on the front of the great square-headed brooch, perhaps the material from a cloak or shawl. The great square-headed brooch in grave 102 was found overlying the left saucer

Table 18 Brooch types and associations

Brooch type	Single	pair of same form	Pair of different form	Pair in set of three	Single in set of three
disc		12	2		1
saucer	1	14	2	2	1
button		2			
small–long		6	1		
great square–headed			1		1
other	1		2		1

brooch; both saucer brooches had traces of tabby-weave on the front while the great square-headed brooch had tabby-weave all over the back and on the pin attachment, with traces of twill and possible fringe threads on top of the tabby on the pinhead.

Most of the brooches at Berinsfield were worn as pairs (Table 18), usually of the same form with similar but not identical decoration. Only four burials had brooch pairs of different form (graves 8, 77, 83 and 107), one of these being, unusually, a great square-headed brooch (107/1) worn as a pair with a saucer brooch. It may be significant that the great square-headed brooch was probably already broken when it was buried (Hines, this volume) and was perhaps a 'second-best'. The single saucer brooch in grave 22 was probably one of a pair; a patch of copper alloy staining noted on the right clavicle implies the burial of a second brooch not recovered during excavation. Sets of three brooches are rare in the Upper Thames valley, and the Berinsfield examples are two of only seven known from the region (Dickinson 1976, 31). The only definitive example of a brooch deposited singly was the *Stützarmfibel* with the infant in grave 64.

It is worth noting that the children's brooches were generally plain or distinctive examples (graves 35, 58, 59, 64, 125 and 150) while, with the exceptions of grave 64 (aged 1–1.5 yrs) and grave 59 (aged *c* 8 yrs), the children with brooches were aged 11 years or more. The implications of this are discussed in more detail in Chapter 5. Only two, possibly three, sub-adults have been found with cast saucer brooches, which may be significant as Dickinson (forthcoming) has recently suggested the possibility of an age threshold for these brooches. At Berinsfield the youngest individuals buried with cast saucer brooches were the two women aged 15–20, who also wore great square-headed brooches (graves 102, 107).

Fourteen adult women had been buried without brooches, and they may have worn gowns sewn at the shoulders, or fastened with tapes or other unpreserved materials. However, Cook has recently suggested, in the context of the cemetery at Portway, Andover, that broochless burials may date to a period when fashion had changed and the tubular over-garment was no longer an essential part of women's dress (Cook and Dacre, 1985, 73). The absence of brooches is particularly notable at Berinsfield in the case of the individual in grave 21, who was buried with beads and two silver rings, and that in grave 134, who had amber and glass beads near her right shoulder with a bone pin, and whose grave was cut into the large oval pit, F116, an element of an early Bronze Age pond barrow (Barclay and Thomas, this volume).

In general, no pattern is discernible in the distribution of the brooches through the cemetery. There is, however, a striking lack of brooches among the cluster of graves around the three parallel ditches (Fig. 6: 16/45, 41 and 132) on the E of the cemetery. Only two brooch burials occur here, and both have unusual forms of disc brooch (grave 125 and grave 150).

Disc brooches

Disc brooches are the most common brooch form in the Upper Thames region but although they are well represented at Berinsfield, they are outnumbered at this site by saucer brooches (Fig. 13). The type is virtually exclusive to England and concentrated in areas S of the Thames, in Cambridgeshire and in the Upper Thames valley (Evison 1988, 11). Dickinson concludes that the main period in which disc brooches occurred as grave goods was between AD 450 and 550 (1979, 42), while Evison has recently argued for an early 5th-century date for some examples (1988, 11). Although no reliable classification of disc brooches has been established (Dickinson 1979, 40), the seven major groups proposed by Dickinson in her thesis have been used below (1976, 118, 123–4).

Four of the disc brooches found at Berinsfield are completely undecorated (brooch 5/2, brooch 35/1 and 2, brooch 77/2), corresponding to Dickinson group 1. Grave 35 also contained an amber and a glass bead, and is considered by Dickinson to be of late 5th-/earlier 6th-century date. Brooch 5/2 was worn in a pair with disc brooch 5/1 (Fig. 52) of Dickinson's group 7.2 which has a central bull's-eye and incised line border (originally brooch 5/1 had been incorrectly attributed to grave 77 and published in Dickinson 1979, 45). A date in the late

5th century or first half of the 6th century is suggested for these brooches by Dickinson's general date-range for the type, and by the association of this pair with 12 amber beads. The undecorated disc brooch 77/2, (originally incorrectly assigned to grave 5) was found in association with brooch 77/3, a miniature square-headed brooch, and brooch 77/1 (Fig. 69) a saucer brooch decorated with a 'weak' star and zigzag border, and was dated on this basis to the early-mid 6th century.

The popular bull's-eye decoration occurs on four further disc brooches at Berinsfield. Brooches 49/1 and 49/2 (Fig. 61) have a quincunx of bull's-eyes associated with three pairs of fine incised circles (Dickinson group 4.5). A similar design occurs on Portway 22/1 and 22/2 (Cook and Dacre 1985, 29). The brooches 60/1 and 60/2 (Fig. 66) have a central bull's-eye with borders of ten and seven bull's-eyes respectively (Dickinson group 5.1). Dickinson suggests a late 5th-/early 6th-century date for these graves. The disc brooch in grave 8 (Fig. 54: 8/1) has a border of stamped dots (Dickinson group 2.3) and was paired with an equal-armed brooch (8/2) which implies a 5th-century date, and is discussed further below.

The remaining four disc brooches are unusual examples. The pair in grave 125 (Fig. 78) belong to a class of rare composite disc/saucer brooches consisting of a flat sheet copper alloy back plate and an upper disc ornamented like a disc brooch, in this case with concentric rings (Dickinson 1976, 191). Dickinson notes that most datable examples of these brooches are from 6th-century contexts, although their connection with disc brooches makes a 5th-century date a possibility. The pair in grave 150 (Fig. 81) have a rectilinear design — a central diagonal cross in a square and ribbed border — which Dickinson suggests is comparable with a brooch from Blewburton (4) (1976, 129). She dates grave 150 to the later 5th/early 6th century.

The brooches in grave 150 were the largest disc brooches at Berinsfield with diameters of 40 mm. Upper Thames valley disc brooches are of a consistent size and all the Berinsfield examples fall within one standard deviation (4 mm) of the mean diameter of 36 mm (Dickinson 1979, 40). Traces of white metal were noted on most of the decorated brooches except the two unusual pairs, brooches 125/1 and 2 and brooches 150/1 and 2. The undecorated brooches had no visible traces of white metal.

Applied saucer brooches

Six applied saucer brooches were found at Berinsfield (brooches 59/1 and 2, brooches 66/1 and 2 and brooches 130/1 and 2). The pair in grave 59 (Fig. 66) survive only as flat sheet copper alloy back plates, with the pin-holders and catches intact, but with no trace of rim or decorative foil. The pair in grave 66 (Fig. 68) are two unusual and robust saucer-shaped back plates; they may either have been cast in this form, or have had rims hammered up from the back plate (see Dickinson 1976, 33–4). Fragments of decorative foil are preserved on brooches 130/1 and 2 (Fig. 79). These belong to Dickinson's applied saucer brooch group 3.2, 'Kempston Cross' type, of which some 40 examples are known nationally. Dickinson suggests this pair may be exports from a production source in the SE Midlands and were probably made in the middle decades of the 6th century (1976, 110–11). The rims of these brooches (which survive, detached) would originally have been soldered onto the back plate; each back plate has four rectangular retaining lugs to hold the rim in place.

Cast saucer brooches

Cast saucer brooches are the most characteristic brooch form of the Upper Thames valley. The type occurs primarily in southern and central England, with a notable cluster of find-spots along the upper reaches of the river Thames (Dickinson 1991, Fig. 5). The first systematic studies of these brooches were made by E T Leeds, who suggested some ornament groups (Leeds 1912; 1933). In 1976 Dickinson proposed a classification dividing the brooches into 18 groups; the first nine consisting of brooches with a single field or a central and dominant motif, and the remaining nine groups classifying brooches with more complex patterns according to the different numbers of fields and axes they used (1976, 35, 77–8). However, Dickinson has recently commented (forthcoming) that this classification does not clarify the typology as she would now see it. Study of the national corpus (at present *c* 578 brooches) has led her to believe that major and minor motifs were combined according to recurring principles or 'design rules'. Valid series and groups of brooches should be derived from these recurring permutations of motifs, rather than from the principal motif alone (1991, 40; Dickinson forthcoming). In general, she identifies three stylistic-chronological criteria which stand out as guidelines in ordering the typology: late Antique motifs, which occur from the 5th century onwards; motifs involving Salin's Style I, which occur probably from *c* AD 500 onwards, and motifs imitating Kentish garnet-inlaid disc brooches, which occur probably from the second quarter of the 6th century onwards.

The 13 cast saucer brooches from Berinsfield were incorporated in Dickinson's original analysis of the Upper Thames valley corpus (1976) and her classifications are given below. In the light of her recent research, however, these should now be seen as interim remarks, pending the results of the national *Corpus of Anglo-Saxon Cast Saucer Brooches* (in prep.).

Seven brooches were decorated with late Antique motifs (brooches 42/1 and 2, brooches 54/1 and 2, brooches 73/1 and 2, and brooch 77/1). The

pairs in grave 42 and grave 73 belong to a large group with a main motif of five running-spirals. This type began in England in the mid 5th century, continued to be manufactured into at least the early 6th century, and may have been buried as late as the late 6th century (Dickinson forthcoming). Brooches 42/1 and 2 (Fig. 60) have weakly-executed scrolls with a border of 'light-and-shade' and were assigned to Dickinson group 1.1.2 in 1976. Brooches 73/1 and 2 (Fig. 69) have single-coiled hooks, or running C-scrolls, rather than true running-scrolls, projecting inwards from a five-lobed outer ring; these were assigned to Dickinson group 1.1.3 in 1976. Dickinson has recently published a further study of five running-spiral brooches in which she has classified both Continental and English brooches according to the principles of motif permutations discussed above (Dickinson 1991). In this classification the grave 42 pair are assigned to the largest group, IIB. This group covers all English brooches of the Main Series with scroll tongues joined to the boundary ring or flange and outlining half of the next spiral to the right. The Berinsfield pair form a separate subgroup, IIB1, characterised by the border field of 'light-and-shade' bars and ovals and its surrounding boundary of one plain ring — features which do not occur on any other brooch in the series (1991, 42, 46).

The pair from grave 73 belong to group IID, a group without Continental parallels, which consists of brooches with running C-scrolls rather than true running-spirals. Within this group the Berinsfield pair are assigned to subgroup IID3, characterised by elongated scrollwork, a plain border ring and diameters in the range 28–30 mm. The other brooches in this group, East Shefford 18 and Wheatley 20, are nearly identical to the Berinsfield examples (1991, 42, 46, 50 and Fig. 4). Brooches of subgroup IID3 are concentrated in the Upper Thames region and are of poor quality; Dickinson suggests they represent a specialised Upper Thames region development towards the production of small saucer brooches during the late 5th century and early 6th century (forthcoming).

Brooches 54/1 and 2 (Figs 14 and 64) are decorated with six weakly executed and elongated running scrolls, surrounded by two rings and a flange of stamped double triangles (Dickinson group 1.2.2). Down and Welch (1990, 97) suggest that six running-scroll brooches were a type which developed in England at the end of the 5th century and continued until at least the middle of the 6th century. Dickinson supports this dating and considers that six-spiral brooches fall into groups which reflect a selection from the prevailing forms found in five-spiral brooches. Brooches 54/1 and 2 belong to a group cognate with her five-spiral group IIB3 with parallels occurring in the SE Midlands at Luton grave 27, Haslingfield unstratified and Barrington A grave XI (Dickinson pers. comm.). Brooches 54/1 and 2 were associated with a copper-alloy-bound bucket, a large facetted crystal, a set of copper alloy toilet implements, a silver ring and a copper alloy ring and split pin, which would support a date of deposition in the first half of the 6th century.

Brooch 77/1 (Fig. 69) is decorated with a weakly executed five-point star surrounded by a zigzag border and belongs to a distinct Upper Thames/E Midlands group which have a double-outline star standing free from its surrounding raised frame, and a zigzag border field (Dickinson group 4.1; see Dickinson 1976, 68–9 and Dickinson forthcoming). Brooch 77/1 is remarkably similar to brooches from Brighthampton (40), Fairford (BM 1929, 7–15, 1), Frilford I (155) and Long Wittenham I (FD 37), and it is likely that all came from one production source and three of them from a single pattern (Dickinson 1976, 68–9). Dickinson has generally suggested a date in the early-mid 6th century for brooches with a star motif (forthcoming) and this is supported for the Berinsfield example by its association with the disc brooch 77/2. Berinsfield 77/1 and Brighthampton 40 were both associated with crude versions of Kentish small square-headed brooches. Hines (this volume) considers, however, that the Berinsfield example (77/3) can add little more than general support for a 6th-century date for this burial.

The pair of saucer brooches in grave 102 (Fig. 73: 102/2 and 3) belong to Dickinson group 10. They are characterised by a field of Style I ornament which Dickinson considers was intended to represent one or two chasing animals, rather than a schematic frieze (pers. comm.). The brooches were buried with a great square-headed brooch (102/1) which Hines suggests was probably manufactured *c* AD 510–550 (this volume), and with a heavy copper alloy buckle with shield-on-tongue, two shoe-shaped rivets and 101 amber beads, which imply a date of burial around the middle of the 6th century or later (Dickinson 1976, 84–5). Their relatively large size may link them to developments in cast saucer brooch manufacture of the second half of the 6th century and early 7th century (Dickinson pers. comm.).

Brooch 107/2 (Figs 14 and 75) has a principal motif of a lop-sided floriate cross and masks, surrounded by a panel of fully developed basketwork (Dickinson group 3.2.2.1). Dickinson suggests that the development of basketwork probably occurs from *c* AD 500 onwards (pers. comm.) and a date of *c* AD 510–550 is supported by Hines' dating of the associated find of a fragmentary great square-headed brooch, 107/1 (this volume).

The remaining three saucer brooches at Berinsfield belong to types considered by Dickinson to imitate Kentish garnet-inlaid disc brooches. The pair in grave 63 (Figs 14 and 67) (Dickinson group 14.5) have a central rosette-like motif consisting of four wedges and four radial bars set around a central boss; this is surrounded by a pseudo-interlace or guilloche border and, unusually, there is no ring dividing the two ornament fields from each other. Dickinson dated this grave to the second

Figure 14 Cast saucer brooches 54/2 (top left), 63/2 (top right), 107/2 (bottom right) and button brooch 18/1 (bottom left) (Scale 2:1)

half of the 6th century but would now admit that a date earlier in the 6th century is also possible. These brooches are not at the moment obviously classifiable or datable on typological grounds (Dickinson pers. comm.). The large brooch from grave 22 (Figs 15 and 55), with a diameter of 70 mm, has four trapezoidal wedges imitating garnet inlays, set between four 'Mr Chad'/ M-shaped masks; the whole design is surrounded by a border of double punches (Dickinson group 12.2.). Dickinson suggests this brooch may be seen as an imaginative adaptation of an Avent Class a.3 disc brooch (1976, 88). Close associations exist between this brooch and others in the region: Dorchester vi (group 18), Oxfordshire xi 'near Oxford' and Wheatley 14 (group 11), Standlake I, 19 and Long

Wittenham I (71) (group 12), Cassington I (7) (group 13.3), Aston Remenham, BM 1932, 3–9, 1–2 (group 14.2), and Ashendon, Abingdon I, B5 and Stone (groups 16.3–5). These brooches all have wide rims, Kentish-influenced designs — especially wedges, nicked wedges and basketwork as their characteristic motifs — and they include the largest of all saucer brooches. Dickinson suggests that they are the final products of an Upper Thames workshop making saucer brooches during the second half of the 6th century. The Berinsfield brooch was probably buried in the late 6th or early 7th century (Dickinson 1976, 98–9).

Figure 15 Cast saucer brooch 22/1 (Scale 1:1)

All the Berinsfield saucer brooches fall within the normal size range of cast saucer brooches, diameters 24.6–82.5 mm (Dickinson forthcoming), and all appear to have been gilded.

Button brooches

Button brooches look like small versions of cast saucer brooches, with a distribution limited to southern England. Most button brooches are decorated with a human face and 118 of these have been classified into 12 groups by Avent and Evison (1982).

The pair from Berinsfield grave 18 (Figs 14 and 55) fall into Avent and Evison's class K (1982, 89, 115–16, Fig. 10), a group of brooches decorated with distinctive 'Mr Chad' masks, with a small hair or helmet element and narrow bars and pellets in the cheek position. Class K brooches occur only in the Upper Thames region, with an outlier at Beckford (4) (Avent and Evison 1982, Fig. 10). Brooches of classes I, J and K are consistently the largest, corresponding in size to small saucer brooches, and have mean diameters between 25.1 mm and 31.4 mm (Avent and Evison 1982, 118, Table 1). Their distinctive size and generally inferior workmanship have led Avent and Evison to suggest that they may represent the earliest form of button brooch, evolved from cast saucer brooches, and introduced into the Upper Thames region by Saxon settlers who continued to produce them until the end of the 5th century (1982, 101–2). Welch has argued, however, that button brooches evolved as a Kentish adaptation of the buttons on Scandinavian sleeve clasps, and that their origin lies in the late 5th and early 6th century (Welch 1985; Down and Welch 1990, 97). Dickinson has also disputed both the primacy which Evison suggests for saucer brooches in the emergence of button brooches as a whole, and her absolute dating (forthcoming). She suggests that the larger Upper Thames valley button brooches are cognate with a secondary development towards the production of small saucer brooches, seen in the five-spiral saucer brooch series during the late 5th and early 6th centuries (forthcoming). One of the Berinsfield brooches has a repaired pin catch and this, combined with the associated 18 amber beads, may support a deposition date in the 6th century.

In common with almost all button brooches, the Berinsfield pair appear to have been gilded. In view of the generally inferior workmanship of Group K brooches, however, it is interesting to note that the only ungilded examples noted by Avent and Evison are brooches belonging to this group.

Small-long brooches

Small-long brooches are primarily found in Anglian areas (most notably S Cambridgeshire), but a few examples often occur in southern cemeteries and seven were found at Berinsfield. A typology of small-long brooches was proposed by E T Leeds (Leeds 1945, 4–44, 88–106) in which he identified four groups with distinctive head plate forms (trefoil, cross potent, cross pattée and square headed) and a fifth group with lozenge-shaped foot and variable head plates. This typology has remained the basis for subsequent discussion of small-long brooches and Leeds' groups are given here for the Berinsfield material. However, more recent writers have suggested that the classification of this brooch type needs to be reassessed, and Leeds' reliance on an intuitive evolutionary typology has been criticised. The arguments are summarised by Hirst (1985, 58) who points out that it will remain difficult to date English small-long brooches until a new study is published.

Six of the seven small-long brooches at Berinsfield (brooches 58/1 and 2, brooches 91/1 and 2, brooches 104/1 and 2) belong to Leeds' square-headed type, which is one of the commoner forms (Leeds 1945, 26) and covers the great majority of Upper Thames region examples (Dickinson 1976, 175).

The brooches in grave 58 (Fig. 65) and grave 91 (Fig. 71) belong to the subgroup with rounded

triangular or crescent-shaped terminals, and Dickinson has noted a number of other similar brooches from the Upper Thames region (1976, 176). Leeds ascribed crescent-shaped terminals to the 6th century and Dickinson supports this dating. Brooches 91/1 and 2 were associated with 17 amber and three metal-in-glass beads, and brooches 58/1 and 2 were associated with three amber and two glass beads. Brooches 91/1 and 2 have stamped dots in each corner of the head plate and a semicircle of stamped dots inside the terminal rim. Leeds considered (1945, 30, 32) that embellishments were rare in brooches of this type, and that brooches with four engraved circlets on the head plate may be derived from the cross pattée form. It is interesting to note, in this context, that the head plates of brooches 91/1 and 2 have concave sides which are particularly pronounced on the lower edge where they may reflect the basal notches found on cross-headed types.

The non-matching pair found in grave 104 (Fig. 74) have a lozenge-shaped foot plate associated with a square head. Brooch 104/2 has a concave-sided head plate and a rounded crescentic foot plate. Brooch 104/1 has a straight-sided square head with a widely-splayed sub-rectangular terminal. It is decorated with nicked edges and patterns of punched circles, with deep circles occurring at the corners of the lozenge and, in a quincunx pattern, on the head plate. The brooches were found in association with 30 amber beads and ten metal-in-glass beads which Dickinson suggests indicate a 6th-century date (1976, 177).

Brooch 83/1 (Fig. 70) belongs to the group identified by Leeds as cross-potent derivatives, subgroup c, with lateral upper notches and basal notches. It has the long triangular foot which Leeds notes is almost invariably associated with the type (1945, 22). Dickinson (1976, 179) lists parallels for brooch 83/1 from Blewburton (19) and Long Wittenham I (63 and 96) which she considers form a very distinct group, perhaps representing a local product. Grave 83 also contained a Roman disc brooch (83/2), a very worn perforated coin of the late 3rd or early 4th century, 7 amber, 1 paste and 4 glass beads. Dickinson dates this burial to the later 5th century.

Stützarmfibel

A *Stützarmfibel* (supporting-arm brooch), an unusual brooch form in England, was found with the infant burial in grave 64 (Fig. 67) in the area of the upper chest, in association with a copper alloy chain, beads, spangles and a very worn perforated coin of the late 3rd or 4th century.

The Stützarmfibel is a development of the bow brooch in which the bow is widened at the top into a supporting arm which almost conceals the spring. The spring is turned a number of times around a staying rod that is held by perforated lugs at either end. H W Böhme published a study of *Stützarmfibeln* in 1974 (1974, 10–14, 51–2) in which he identified three main types. Only one of these occurred in England, the *Stützarmfibel mit gleichbreitem, bandförmigem Fuss (ohne Achsenträger)*, subdivided into Mahndorf and Perlberg types. Evison (1977, 127) notes that these brooches are characterised by a flat bow and two lugs holding the ends of the spring rod; they lack the third perforated lug in the middle of the head which occurs in Böhme's other types.

The Berinsfield brooch has been considered by Dickinson (1976, 183) and by Evison who included it in her survey of the nine *Stützarmfibeln* known from England (1977, 128–30, 136–138, Figs 1 and 6). It belongs to Böhme's Mahndorf type, which is characterised by a supporting-arm width between 25 and 30 mm. The Berinsfield brooch's head was broken and would originally have been slightly wider than its present 24 mm (Evison 1977, 128). It has an unusually wide trapezoidal foot for this type. Mahndorf-type brooches occur on the Continent almost exclusively between the lower reaches of the Elbe and the Weser (Böhme 1974, 4; Evison 1977, 129) and English examples were noted by Evison from Pakenham, Suffolk, Spong Hill cremation 1598 and Marholm Rd, Bretton, Greater Peterborough (1977, 136–7). Dickinson (1976, 183) considered that the Berinsfield example was an import and probably buried during the first half of the 5th century and more recently this date has been supported by Böhme (1986). Evison, however, considers that most of the English examples have developed slightly from Continental forms and may represent the work of insular craftsmen (1977, 129).

Equal-armed brooch

An equal-armed brooch was found at Berinsfield in grave 8 (Figs 16 and 54). Equal-armed brooches were developed from *Stützarmfibeln* with trapezoid feet in the late 4th century (Böhme 1974, 18) and are characterised by an elongated triangular head plate connected by a short semicircular bow to a somewhat larger and wider trapezoidal foot plate (Böhme 1974, 16).

Böhme published a study of equal-armed brooches in 1974 (14–19) and Berinsfield brooch 8/2 has been discussed since by Dickinson (1976, 184–5) and by Evison who included it in a survey of 13 examples known from England (1977, 130–36, 138–40, Figs 2–6). Most equal-armed brooches are highly decorated, using chip-carving, scrolls, animal heads and borders, and the exceptionally austere Berinsfield example does not readily fit any of Böhme's types.

Dickinson (1976, 184) considered that in size and general profile Berinsfield 8/2 was related to Böhme's Sahlenburg type, comparable with an almost unique plain Continental example from Aalden in Holland (Böhme 1974, Taf. 58/4). She noted that the Aalden brooch has four animal heads

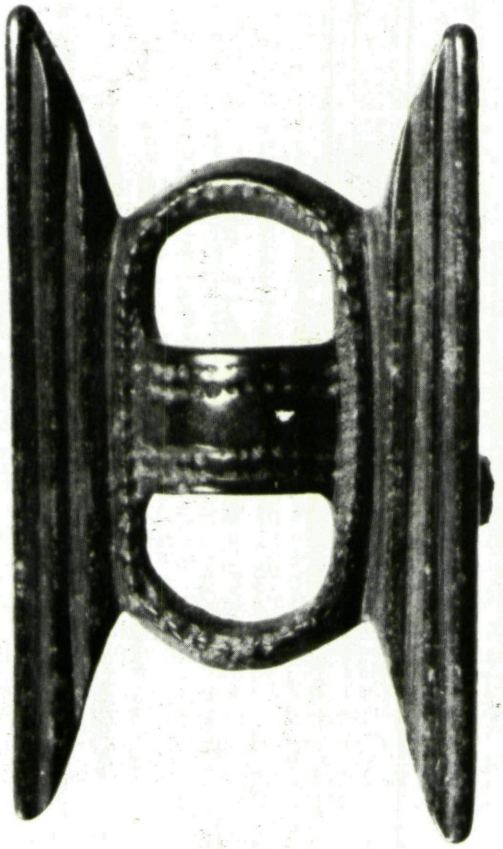

Figure 16 Equal-armed brooch 8/2 (Scale 2:1)

curving inwards from the ends of the head plate and foot plate, and suggested that the linking arcs on the Berinsfield brooch may represent formalised animal heads. Böhme tentatively suggested a date in the first half of the 5th century for an early Sahlenburg type brooch (Böhme 1974, 19). However, Dr Dickinson informs me that she would now be inclined to accept the later dating suggested by Evison.

Evison (1977, 135–6) notes that two other English equal-armed brooches (Mucking: graves 637 and 983) are not made with the traditional continental ornamentation, but instead have simple stamped-decoration which may derive from Quoit Brooch Style techniques. She classifies Mucking 983 as Böhme's Dösemoor type, but associates Mucking 637 with Berinsfield 8/2 as a new insular class, 'Berinsfield type'. Böhme suggests that degenerate examples of his Nesse type were being worn on the Continent in the second half of the 5th century (1974, 19). Evison argues from this that, since the Nesse type in England represents the beginnings of insular divergence from continental design, the Berinsfield type brooches, which probably represent the latest stage of insular manufacture, should be associated with this later 5th-century dating (1977, 134–5). A date in the later 5th century is supported by Böhme (1986).

Roman brooch

The Roman brooch which was found in grave 83 (83/2) has been studied by Dr R White and was included in his study of Celtic and Roman objects found in Anglo-Saxon graves (White 1988); the comments which follow are based on his work and I am grateful to Dr White for providing me with additional information. Brooch 83/2 (Fig. 70) is a small copper alloy disc brooch divided into two zones by an upright flange. The inner zone, which is pierced in the centre, would originally have held a glass or paste setting; the outer zone is slightly conical in profile. There is no sign of the gilding and stamped decoration which is normal on these brooches, suggesting that the brooch was already in poor condition when buried. This interpretation is given weight by the use of a replacement iron pin instead of the original pin of copper alloy. Although this is normally considered evidence of re-use in the Anglo-Saxon period, White notes evidence that iron pins were also used for repairs in the Roman period (1988, 30).

Brooch 83/2 belongs to a category of Roman disc brooches with a central setting, which White considers may show evidence for heirloom use. He cites recent evidence that brooches of this kind may have continued in production into the last period of Roman Britain (1988, 29). The Berinsfield example occurred with a small-long brooch of Leeds' cross-potent derivative form (83/1, see above), and a group of amber and glass beads and a worn perforated coin of the late 3rd to 4th century. Although brooch 83/1 was found at the skeleton's shoulder, the disc brooch 83/2 was found by her left hand and the crouched position of the body makes it difficult to assert with confidence that the brooches were being worn as a shoulder pair, in Germanic fashion. Dickinson considered that this burial probably dated from the end of the 5th century and this dating is accepted by White (pers. comm).

Unstratified brooches

Two unstratified brooches were recovered at Berinsfield. One was a fragmentary back plate from an applied brooch (Fig. 82.1) with no trace of rim or decoration remaining (Chapter 3, unstratified material, topsoil No. 1). The other (Chapter 3, unstratified material, unprovenanced No. 3) was a fine cast saucer brooch, of copper alloy, gilded and with a diameter of 64 mm (Fig. 82.3). I am grateful to Dr Dickinson for her comments on this brooch. It has a hole for a central setting, possibly of glass or metal, and a central hexafoil with oval pellets surrounded by two plain rings. The outer field consists of six Style I animals, each composed of a full-face moustachioed human head with multiple-bar-block body and single bent leg. The whole design is surrounded by a narrow flange with punched annulets. This brooch belongs to a

very distinct group consisting of a possible failed casting from Cassington, Purwell Farm, Hut Group 2, a saucer brooch from Beckford B grave 46 and a version of an applied brooch from Kempston. It also relates to a larger group of brooches with a four or six petal motif and a frieze of head and leg elements found in Upper Thames and Avon valley cemeteries. It is probably datable to the mid-late 6th century.

THE SQUARE-HEADED BROOCHES
by John Hines

(Graves 77, 102 and 107)

The great square-headed brooches

Graves 102 and 107
These two square-headed brooches are referred to here as Berinsfield 102 and Berinsfield 107. Berinsfield 102 (Figs 17 and 72) belongs to group I of the Anglo-Saxon square-headed brooches according to the classification published in my thesis (Hines 1984, 110–198) and to be followed in a new corpus of this brooch-type soon to be published (Hines forthcoming). Group I is a rather heterogeneous group of brooches, now comprising 20 known examples distributed principally in the Saxon areas of southern England. A brooch from Alfriston, East Sussex, grave 28 (Leeds 1949, no.66; Welch 1983, 69 f, Fig. 10) is most similar in form to Berinsfield 102. Four compositional elements may be regarded as equivalent in design on these two brooches: on the headplate, the frame of masks and the upper corners with a symmetrical pair of small profile animal heads; and on the footplate, the frame, and the upper borders with 'biting beasts' with a clearly modelled tongue and a small subsidiary profile head on the upper jaw. The design of these elements is traceable back to a silver brooch found near Dartford in the Saxon area of early 6th-century West Kent (Wilson 1957) which apparently represents the earliest known form, possibly the principal ancestral prototype form, of a group I brooch. Various details may be cited in support of the case that the Dartford brooch represents an earlier form of brooch, such as the more extensive use of openwork, together with a more detailed version of the footplate bar with a long-nosed mask facing up into the bow. Simpler workmanship in a cheaper material is *a priori* more likely to follow very high-class craftsmanship in a precious material than vice versa. By similar criteria we may argue that other members of this group, such as brooches from Chessell Down, Isle of Wight, grave 60 and Fairford, Oxon, grave 20 (Leeds 1949, nos.79–80) represent later forms than Berinsfield 102.

An attempt to date Berinsfield 102 has to take account of four factors: its formal descent from the model represented by the Dartford brooch;

Figure 17 Great square-headed brooch 102/1 (Scale 1:1)

parallels with other brooches which are not formally chronologically differentiable; the grave group in which it was found; and the occurrence of later forms of group I brooches. The original source of the square-headed brooch was Scandinavia, and a number of details of the Dartford brooch suggest that the brooch might be an imported piece from Scandinavia of the kind which could have introduced the brooch-type to southern England. The overseas parallels to Dartford permit that brooch to be dated alongside brooches of Haseloff's Group C Jutish Brooches to *c* 500–520 (Hines 1984, 184–9; Haseloff 1981, 170–3).

The contents of Berinsfield grave 102 included a small shield-on-tongue buckle of a form that occurs in Frankish graves coin-dated principally between the 520's and the late 6th century (Böhner 1958, 181–3) and a saucer brooch of a type which,

according to Tania Dickinson's study in her doctoral thesis, would most probably be buried in the period *c* 525–575 (Dickinson 1976, 25, 85 and 167). An equivalent form of the footplate frame on Berinsfield 102 and Alfriston 28 is found on a number of group II square-headed brooches, from Kent, Northamptonshire and Cambridgeshire (Hines 1984, 121–4; *cf.* Leeds 1949, nos. 83–7). There is an additional parallel between Alfriston 28 and one of these brooches, from Sarre, Kent, grave 159, in the form of an additional outer frame of beaded wire surrounding the foot plate. This suggests that Berinsfield 102 and Alfriston 28 are broadly contemporary with the earlier forms of group II brooches represented by Sarre 159 and a brooch from Herpes, France, which in turn would appear to be broadly contemporary with a well known animal-decorated type of Kentish buckle plate, the design of which is exactly reproduced in their headplate inner panels. A recent survey of these buckle plates has concluded that they 'were in production at the latest by the second quarter of the 6th century' (Hawkes, Hogarth & Denston 1975, 78–9; *cf.* Haseloff 1981, 280). At present there are no known parallels to the latest forms of group I brooches which could provide them with a secure relative date. However, if a date of *c* 570 is accepted for the demise of the Anglo-Saxon square-headed brooch tradition as a whole, and group I consists of 20 known brooches divisible into just three general stages, there are no strong grounds for believing the production of Group I to have lasted far beyond the mid 6th century. By a process of interpolation and estimation outer limits of *c* 510–550 may be proposed for the making of Berinsfield 102, more probably earlier within that period than later, with a date of burial sometime from the 520's onwards.

Berinsfield 107 (Figs 18 and 75) is too individualistic an example to be put into any formal group of square-headed brooches, but nevertheless certain points of similarity it bears to other brooches can be noted. Its most similar counterpart seems to be another individualistic and fragmentary brooch from Newnham, Northants (Leeds 1949, no.40). This has similar large, plain triangular footplate inner panels with coarse interlace strands framing them, and bundles of lines below the profile head in the foot plate upper borders, with a long pointed element probably representing a residual lower jaw stretching towards the side lobe.

More scattered parallels to the detailed decoration of Berinsfield 107 are found on brooches generally of southern provenance. The motif in the upper left-hand corner of the headplate could be derived from the pair of heads found on Berinsfield 102 and a number of other group I brooches noted above, and the eyes representing masks in the headplate frame have their best parallels on brooches from Norton, Northants (Leeds 1949, no. 90) and Beckford A, Hereford & Worcestershire, grave 11 (City Museum, Birmingham). Inward-facing masks in the footplate side-lobes are not unfamiliar, and the closest parallels to those on

Figure 18 Great square-headed brooch 107/1 (Scale 1:1)

Berinsfield 107 appear to be those found on group III brooches from Chessell Down, Isle of Wight, grave 22 (Leeds 1949, no. 8), and Paglesham, Essex (Current Archaeology 54 (1976), 214–5).

Group VI brooches, which occur principally in the SW Midlands (Hines 1984, 129–132; *cf.* Leeds 1949, nos. 71–5), provide more distant parallels to Berinsfield 107 and the Newnham brooch. Firstly Berinsfield 107 has a ladder-like strip formed by stamps on the lower right-hand side of the footplate inner panel frame similar to those found on group VI brooches. Secondly the apparently meaningless ornament in the one surviving footplate side-lobe of the Newnham brooch could conceivably have a source in the animal design found on group VI brooches. The best that one may say is that the southerly affinities of Berinsfield 107 and the Newnham brooch are relatively clear, and that future discoveries may reveal a more distinct group with a range of forms including these two brooches, which will indicate a clearer relationship, and perhaps broad contemporaneity, with the later stages of groups I, III and VI. The possible derivation from Berinsfield 102 of the motif in the headplate upper corner of Berinsfield 107 is one argument for regarding it as later in form than Berinsfield 102, but all that can confidently be said about its probable date of production is that it is unlikely to be earlier than Berinsfield 102 or much later than the mid 6th century. This date agrees closely with that suggested by Tania Dickinson for the associated saucer brooch (see Dodd 'The brooches', this volume).

The small square-headed brooch

Grave 77

Small square-headed brooches are found widely throughout early Anglo-Saxon cemetery sites, at least south of the Wash, although they are not conspicuously numerous nor do they form any very evident concentrations except in Kent, where they merge with the general Kentish square-headed brooch series and may, indeed, have their origins (Leigh 1980). Such observations, unfortunately, have to be made without the benefit of a comprehensive catalogue and classification of these brooches other than Leigh's work in Kent. This also means that a full comparative study of this Berinsfield brooch of the kind possible for the great square-headed brooches cannot be offered.

Figure 19 Small square-headed brooch 77/3 (Scale 2:1)

Berinsfield 77 (Figs 19 and 69) is a particularly simple example of a small square-headed brooch, and I cannot offer any significant parallels to it from amongst other brooches of its type. The crude pair of volutes in the head plate probably represent a very degenerate full-face mask design. The rhomboidal lattice pattern found in the foot plate is a characteristic of Continental Frankish radiate-head brooches of a type classified in 1940 by Kühn as Typ Hahnheim, and now dated, somewhat vaguely, to the middle to later 6th century. A number of examples of this brooch type are known from England — eg Chatham Lines, Kent, grave XVIII, Lyminge, Kent, grave 16 and Great Chesterford, Essex, grave 37 — which serve to illustrate the path by which this motif could be introduced into the Anglo-Saxon small square-headed brooch series.

Berinsfield grave 77 also included a cast saucer brooch with a five-pointed star design (77/1) and a plain disc brooch (77/2). The former is classified by Tania Dickinson as a member of her Group 4.1, and also dated to the 6th century. Without detailed studies of the small square-headed brooches generally, and, presumably, Typ Hahnheim radiate-head brooches, this brooch itself cannot contribute to any closer dating of this grave group.

The brooches in their grave contexts

As one would expect, all of these brooches were amongst typically female grave assemblages, and this identification was supported by the skeletal evidence. The combination of a great square-headed brooch with two other smaller brooches, commonly a matching pair, in grave 102 is a regular one, recorded in about half of the reliably preserved inhumation-grave groups containing square-headed brooches. Where information is available, either in the form of grave plans or verbal reports, the square-headed brooches are very commonly found high on the breast or upon one of the shoulders as is the case here. It is interesting to note, from the photograph (Fig. 20) and plan (Fig. 46), that the square-headed brooch partially overlay one of the saucer brooches, as the current orthodoxy suggests that such a brooch-group represents a peplos-type dress (fastened by the pair of shoulder brooches) below some form of cloak (fastened by the larger central brooch). Interpretation of the textile report suggests that the square-headed brooch fastened a tabby-woven linen garment overlying the saucer brooches and that these fastened a (?woollen) twill. Thus the outer garment, although carrying the heaviest dress-fastener, may have been relatively light — possibly a hood or shawl.

The plan of grave 107 (Fig. 47), by contrast, suggests that in this case the square-headed brooch and single saucer brooch functioned as an unmatched pair of shoulder brooches. Such a combination is not unparalleled, apparently recurring in the pairing of a square-headed brooch and a small-long brooch in grave 43 at Wasperton, Warwicks and, possibly, Spong Hill, Norfolk, grave 18 (Hills, Penn & Rickett 1984, 66–7; *cf.* textile analysis, *ibid.* 23). We may regard this as a relatively irregular, *ad hoc* disposition of the brooches; it may be relevant in this respect that Berinsfield 107 was probably broken before being used in its funerary context, as its missing foot plate terminal lobe was not recovered from the grave.

The small square-headed brooch in grave 77 was found by the waist, with the cast saucer brooch and the disc brooch clearly *in situ* as shoulder brooches. Leigh notes that this low, frontal position is not uncommon for Kentish square-headed brooches,

Figure 20 Detail of grave 102, showing amber beads, cast saucer brooches and great square-headed brooch

although normally they are found in pairs in this position, and he suggests that the brooches' function at the waist may be decorative/symbolic rather than utilitarian (1980, 488–93).

BUCKLES AND BELT FITTINGS

by Anne Dodd

(Graves 2, 6, 26, 32, 42, 43, 47, 49, 50, 52, 54, 60, 64, 77, 82, 102, 110, 121, 122, 128 and 133)

Buckles and belt fittings occurred in 21 graves at Berinsfield; seven adult males, seven adult females, one unsexed adult and five children. Grave 43 contained the remains of two adults and the copper alloy strap end 43/3 could not definitely be associated with one or the other.

Most belt fitments were found around the waist (graves 2, 26, 32, 49, 52, 64, 82, 110, 122 and 128) or the pelvis (graves 6, 42, 47, 50, 60, 77, 102, 121 and 133). The buckle in grave 54 was found near the base of the skull, and the strap-end in grave 43 lay on the left-hand side of the grave.

The usual function of buckles was to fasten a waist or hip belt (see Evison 1988, 22; Hirst 1985, 86) and the Berinsfield examples, with the exceptions noted below, were all of moderate size in the range 20–38 mm wide. Small examples, for belts between 10 and 15 mm wide, may have fastened straps for shields, pouches or knife sheaths (Evison 1987, 90; 1988, 23). In grave 52 two buckles (52/4: Fig. 63) were found to the right and left of the lower spine; one of these was small (width 17 mm) and may have been a strap fastener for the shield which lay over the pelvis, or the knife which lay above the shield boss at the waist. Another small iron buckle (2/2: Fig. 52) was found associated with a group of iron fragments at the waist of grave 2, a 5-year-old child. The buckle (54/5) found near the base of the skull in grave 54 was fragmentary (Fig. 65), but reconstruction suggests it was comparatively large, with a width over 40 mm. Its unusual position might reflect slippage from an original position on the left shoulder where it could have functioned as a dress-fastener (Owen-Crocker 1986); alternatively it may have been associated with the bucket behind the woman's head, or with a strap for an object which has not survived.

Copper alloy belt-fittings occurred in only five graves. Grave 6 contained a fragment of a late Roman tubular edging-piece (6/5) with astragal decoration (Fig. 54; Dickinson 1976, 245). This was found in the upper fill of the grave, however, and would appear to be a redeposited find in a burial otherwise dated by its Dickinson and Härke type 1.1 shield boss to the late 5th or early 6th century (Härke, this volume).

The fragmentary probable belt mount (26/4: Fig. 57) found in grave 26, under the skeleton's right ribs, consisted of a thin rectangular copper alloy plate, 20 x 16 x 1 mm, with rivet holes in the three remaining corners. It was decorated with two parallel rows of repoussé dots and a row of punched crescents. Grave 26 also contained a Swanton type H2 spearhead and a Böhner type A knife, suggesting a late 5th- or early 6th-century date.

A narrow copper alloy strap-end (maximum width 6 mm) was found with the double burial in grave 43. It has a rounded double plate; the upper plate is decorated with two sets of incised transverse parallel lines on either side of a diagonal cross and is attached to the lower plate by two rivets. It was associated with a shield boss of Dickinson and Härke's group 3 ('Merovingian' type) which occurs from the early 6th to early 7th century (Härke, this volume).

Grave 102, the richest female burial in the cemetery, contained a heavy copper alloy buckle with shield-on-tongue and two associated shoe-shaped rivets (102/5: Fig. 74). This is a distinctively Frankish buckle type, which was in use on the continent from about AD 525–625 (Evison 1987, 89; see also Böhner 1958, 182–3). The type reached its greatest period of use in England in the mid-later 6th century (Millard et al. 1969, 16), but the Berinsfield example is certainly datable to the first half of the 6th century (Mrs S C Hawkes pers comm). It was associated with a great square-headed brooch of Hines' group I which was probably manufactured c AD 510–550 (Hines, this volume), and a pair of large cast saucer brooches which Dickinson considers may be associated with developments in cast saucer brooch manufacture in the second half of the 6th century and early 7th century (Dodd, this volume).

Only two other certain examples of shield-on-tongue buckles are known from the Upper Thames valley — Wheatley 15 (Dickinson 1976, 252) and Watchfield Grave 67 (Scull 1992) — but the type occurs frequently in Kent and a group of 11 examples have recently been published from the cemetery at Buckland, Dover (Evison 1987, 87–9). Other recently published examples occurred at Appledown, topsoil find 146 (Down and Welch 1990, 101, 145, Fig. 2.71), and at Sewerby, grave 57/1, which was associated with a cruciform brooch datable to before the second half of the 6th century (Hirst 1985, 86, Fig. 57).

Shield-on-tongue buckles are often accompanied by shoe-shaped or disc-shaped rivets; a set of three was usual, but one or two were frequently lost in wearing (Evison 1987, 87) and only two were found with the buckle at Berinsfield.

A decorated copper alloy buckle was found in grave 128 (128/3: Fig. 78), associated with a rectangular gilt copper alloy plate which has a central setting of red glass surrounded by a field of Style I ornament. Buckle plates of this type are common in Kent and occur throughout southern England (Welch 1983, 97–8; Hawkes et al. 1974, 78 no. 48; Åberg 1926, 117–18). Examples with coherent animal ornament were probably in production by the second quarter of the 6th century, while an example from Monkton, Thanet, with garbled Style I ornament, was considered to be of mid 6th-century date (Hawkes et al. 1974, 78–9). Mrs S C Hawkes has kindly commented on the Berinsfield example, which she dates to the second quarter of the 6th century and considers would have been imported into the Upper Thames region from Kent. Dickinson (1976, 251) and Welch (1983, 97–8) have noted that these buckle plates are consistently associated with rich male weapon-burials, and Mrs Hawkes has commented that the type is always associated with men and may have been acquired in the course of trading with Kent (pers comm). The Berinsfield example, however, occurred with a nine-year-old child and was associated with a knife and a small spearhead of Swanton type E1, datable to the first half of the 6th century (Härke, this volume).

The remaining buckles were of iron and were generally either fragmentary or in poor condition. They do not represent any precisely datable types.

Circular and oval loops occurred in graves 2, 32, 42, 52 and 133 and associated fragmentary flat rectangular buckle plates occurred in graves 2, 32 and 52. The example in grave 32 (32/1: Fig. 58) had a plate folded round the hinge bar with a slot for the tongue. D-shaped buckle loops occurred in graves 6, 47, 50, 54, 82, 110, 121, and 122 and those in graves 82, 110 and 121 were associated with fragmentary flat rectangular plates. The buckle loop fragment in grave 49 is of rectangular shape. Two fragmentary iron buckle plates without associated loops were found in graves 60 and 77.

FINGER RINGS

by Angela Boyle

(Graves 21 and 54)

Three finger rings (21/2, 21/3 and 54/8) were recovered from graves 21 and 54, both of which contained the remains of adult females, one aged 30–35 years, the other aged as adult only. The three rings fall into two distinct categories of closed band and expanding type (Fisher 1979). Grave 21 contained two virtually identical expanding spiral rings with ends tapering to a point (Fig. 55). Their

diameters are 19 and 21 mm and the widths of bands are 3.5 and 4.5 mm. Ring 54/8 (Fig. 65) is a closed band with a diameter of 18 mm and a maximum width of 5 mm (cf. Fisher 1979, pl. 33). All three rings were manufactured from undecorated silver (In Dickinson 1976, 81, one of the expanding rings is incorrectly identified as bronze instead of silver).

The positions of the objects appears to confirm their use as finger rings. All three were said to have been worn on one of the fingers of the left hand. However, the position of ring 21/3 was uncertain as the body had been slightly displaced by machine damage. When excavated, ring 21/2 was located on the first finger of the left hand.

The only objects associated with the expanding rings were an amber and a glass bead, while at Lechlade five examples were found in graves 18, 130 and 144 in association with moderate to large numbers of grave goods (Boyle et al. forthcoming). However, the Berinsfield example is not atypical as expanding rings are not solely confined to wealthier graves (Fisher 1979, 37) and this may be related to their ease of manufacture and universal adaptability. Expanding rings are the most common type of ring in early Anglo-Saxon contexts, popular from the 5th to the 6th century and in the Thames valley at least they are often found in association with saucer brooch-wearing females. The two beads in grave 21 do not provide us with conclusive dating evidence, although the amber bead may suggest a 6th-century date. Two recently published examples from Portway, graves 54 and 61, have been assigned a similar date (Cook and Dacre 1985), as have the examples from Lechlade where the expanding rings from graves 18, 130 and 144 were dated to the 6th century on the basis of their associations with a great square-headed brooch (grave 18) and saucer brooches (graves 130 and 144) (Boyle et al. forthcoming). Down and Welch have recently argued that a date in the first half of the 6th century is appropriate for the expanding or spiral rings from Appledown (1990, 100).

In contrast to grave 21, grave 54 which contained the plain closed band ring was well furnished with two saucer brooches, a crystal and a glass bead, a set of toilet implements, a pair of tweezers on a ring, a copper-alloy-bound wooden bucket, a buckle loop and a knife (Figs 64 and 65). Grave 54 has been dated on the basis of the brooches (Dickinson 1976; Dodd, this volume) to the late 5th–early 6th century, which concurs with the known date range of the early 6th to the 7th century for plain closed band rings. Their greatest period of popularity is in the mid 6th century while those in 7th century contexts tend to be incorporated into elaborate necklaces of the 'Final Phase' — eg Finglesham and Chamberlains Barn (Hyslop 1963).

PINS

by Angela Boyle

(Graves 5, 30/1, 53, 60, 73, 77, 78, 86, 91, 107, 130, 134,

Wood

The wooden pin (53/5) was found in grave 53, located underneath a spearhead which lay displaced at the head end of the grave of a 30–35-year-old male. This pin is now missing and no further description or illustration survives.

Bone

The bone pin 86/2 (Fig. 71) was discovered during skeletal analysis therefore its original location within the grave is unknown. Both ends of the pin are damaged though enough of the head survives to indicate that it was perforated. It has a length of 56 mm and a maximum width of 3.5 mm. There is transverse moulding just below the head. The shaft, which is oval in cross section, tapers towards the tip. Grave 86 contained the remains of a child, approximately 7 years old, whose only other grave good was a knife.

A second bone pin, 134/1/2 (Fig. 79), lay immediately above the right collar bone of a woman of more than 45 years. The pin had a disc-shaped head and a shaft, with a circular cross section, which was 42.5 mm in length. Maximum width of the stem was 4 mm. There was a slight indication that the shaft was hipped towards its bottom third. This feature was not as marked as that demonstrated by two examples from Lechlade graves 140 and 181 where a 7th-century date has been assigned (Ross forthcoming). Dickinson (1976, 196) also sees hipping as a later feature. Associated objects at Berinsfield comprised amber and glass beads and a knife, which suggests that a 6th-century date is perhaps more likely.

Copper alloy

The three copper alloy pins from Berinsfield all seem to have been of a similar type: spatulate-headed pins with perforations. The precise shape of the head of the pin 5/4 (Fig. 53) could not be determined as both ends were damaged, though enough did survive to clearly indicate the perforation. The pin had a circular section and a length of 94 mm. It was located on the upper left chest of a female aged 20–25 years. The associated assemblage also contained a pair of disc brooches, amber beads, iron and copper alloy rings, an iron rod and a knife.

Textile remains were present all around the shaft of this example indicating that it had been pushed through cloth (J Hedges pers. comm.). The remains

comprised animal fibres and a fine tabby weave which may have been the same as that found on the front of the brooches (see Crowfoot, this volume) suggesting the wearing of an outer garment fastened by the pin.

In grave 30/1 a spatulate-headed pin (30/1/2: Fig. 58) with sub-triangular outline lay between the left ribs and arm of a male aged 40–45 years. It was 58 mm in length with a circular cross- section and a maximum width of 3 mm. A knife and an iron ferrule were also present in this grave.

Grave 91 contained a copper alloy folded pin (91/4: Fig. 71) with a spatulate curved-outline head (very rounded) on a copper alloy ring of twisted wire. It is similar in form to Lechlade 81/1 (Boyle *et al.* forthcoming), Long Wittenham 33 and 68 (Akerman 1861), Abingdon B9 and B119 (Leeds and Harden 1936). The spatulate-headed pin from Lechlade is discussed at length elsewhere (Ross forthcoming) and a date range from the late 5th to the early 6th century is proposed.

Iron

The remaining seven pins are made from iron and all are poorly preserved. In every case only shaft fragments survive. None are classifiable or particularly distinctive with the possible exception of 107/10 (Fig. 76). The surviving shaft fragment has a length of 32 mm and a maximum width of 4 mm. It appears similar in form to the spatula with twisted shaft from Lechlade 81/1 which is not believed to be a closely datable type (Clark forthcoming). The Berinsfield shaft fragment seems to have been part of a bag collection which is discussed in detail elsewhere (see Dodd, this volume). The fragments from grave 60 (60/3: Fig. 66) were much corroded though the presence of a perforated head seemed likely. Pin? shafts with circular cross-sections were found in graves 73 (73/3: Fig. 69), 77 (77/7: Fig. 69) and 78 (78/1: Fig. 69). Two shaft fragments (130/6: not illustrated) with unclear cross-section lay at the mouth of a female aged 35–40 years in grave 130. A third pin shaft fragment (130/4) from this grave was located on the right upper chest below a brooch and is likely to relate to this object.

A further two objects from Berinsfield graves 37 and 50 were described as pins by Dr Dickinson (1976; at the time she did not have an authoritative list of the material). The pin fragment assigned to grave 37 appears to be a copper alloy hook (37/2) and the considerable disturbance to this grave has rendered contextual information unhelpful in this case. The pin fragment from grave 150 cannot be identified with certainty but is presumed to be an iron rod with a hooked end (150/3).

The function of the pins is far from clear in a number of cases. The fragments from grave 130, recovered in the region of the mouth may have been displaced from an original location in the region of the neck or skull. The pin 78/1 was located at the right side of the skull and may have fastened a head scarf or similar garment. Pin 30/1/2 lay between the left ribs and left arm of a man and its function is unclear. The remaining pins were all located on the chest or collar bone. The presence of textile remains on the front of brooches from graves 60 and 91 suggests that an outer garment of some form was worn, possibly in these cases fastened by pins. This evidence contradicts the suggestion that spatulate-headed pins or 'prickers' were toilet implements (Leeds 1936, 95) especially when examples appear on the chest and are apparently disassociated from other toilet implements.

TOILET IMPLEMENTS
by Angela Boyle

(Graves 18, 49, 54, 63, and 107)

Brush tubes/holders

These objects were discussed by Chadwick (1958) who dated their appearance to the very early pagan period and saw no reason to extend their range beyond the 6th century. She described them as needle cases, a description which Brown (1974) disputed preferring to consider them to be brush holders, though the dating was left uncontested. The Upper Thames valley examples are discussed by Dickinson (1976, 223) where the range extends from the late 5th (Broughton Poggs 15) to the mid or late 6th century (Dorchester 107).

Both Berinsfield examples were located on the chest of female individuals and had suffered slight damage at their open ends though traces of fibre were still visible within. The holder 107/1/4 (Fig. 76) was attached to a twisted copper alloy wire ring while the holder from grave 18 (18/4: Fig. 55) though perforated at one end had no visible means of suspension.

Tweezers

In grave 49 a pair of plain copper alloy tweezers (49/4: Fig. 61) lay on the chest underneath a brooch which was associated with a female of more than 45 years. The object comprised a folded strip of copper alloy with incurving terminals and traces of white metal on the surface with a maximum length of 58 mm.

Ear scoop/spatula and picks

A toilet set (54/4: Fig. 64) consisting of two picks and a scoop was recovered from grave 54. One pick and the scoop are suspended from a copper alloy wire ring. The second pick is broken and unattached. All were found under the saucer brooch on the left shoulder and are likely to be part of the same

collection. They share both form (spatulate heads with curved outline) and method of manufacture. A scoop and a pair of picks are the most commonly occurring combination among Thames valley inhumation assemblages (Dickinson 1976, 220), and both plain and decorated ear scoops are known to date from the late 5th to the early 6th century.

Scrapers

Three scrapers (107/8: Fig. 76) which were suspended from a single copper alloy wire ring were located in grave 107. The objects resemble one half of a pair of tweezers with a loop at one end through which a ring passes. The scraper is bent at the other end to produce a 'foot'. They were located immediately adjacent to an ivory bag ring and are likely to have been contained within a bag. In this context it is interesting to note that a more recent example from Lechlade 184 may also have been part of a bag collection (Boyle *et al.* forthcoming). The associated artifacts from the Berinsfield grave suggest a 6th-century date which concurs with all the finds from the Upper Thames valley (Dickinson 1976, 223). The function of these objects is unknown.

Bone comb

In grave 63 a fragmented and incomplete bone comb (63/5: Fig. 67) lay to the right of the skull of a 20–25-year-old female. Reconstruction made it possible to determine that it is a double-sided composite comb held together by two riveted side plates. This is the most common type found in early Anglo-Saxon graves (Meaney and Hawkes 1970, 44; Hawkes 1973, 198) although examples are known from the 3rd to the 13th century (MacGregor 1985, 92). Thames valley examples have a date range which extends from AD 450–550 to the later 7th century (Dickinson 1976, 217). Associated objects in Berinsfield grave 63 include a pair of saucer brooches for which a date in the second half of the 6th century has been suggested.

GIRDLE GROUPS

by Anne Dodd

(Graves 2, 5, 83, 101, 102, 104, 107, 125 and 150)

Rings and miscellaneous fragments which are characteristic of girdle groups and bag collections were found in nine graves, of which two were children (graves 2 and 5), one was adolescent (grave 150), and four were adult females (5, 83, 102 and 107). A copper alloy ring was found with a man in grave 101, while the burial in grave 104 (with three rings) was identified as a male from skeletal data (Harman, this volume), but had predominantly female grave goods.

Five groups were on the left side of the body; at the waist in graves 2, 102 and 125, at the hip in grave 83 and inside the left femur in grave 104. Three groups were on the right side of the body; grave 150 at the right waist and graves 5 and 107 at the right hip. The copper alloy ring in grave 101 was found beneath the small of the back.

The commonest components of the girdle groups at Berinsfield were rings. An ivory ring (107/7: Fig. 76) was found with the burial in grave 107. Ivory rings are a familiar feature of female assemblages and at least 112 are known from Anglo-Saxon burials in 62 cemeteries across the country, with the highest concentration in East Anglia (Huggett 1988, 68, Fig. 3). Further recent examples occurred at Appledown, grave 18 (Down and Welch 1990, 103) and at Lechlade, graves 18, 81 and 164 (Boyle *et al.* forthcoming).

Following Green, it is generally held that they were bag rings attached just inside the mouth of a long purse, and suspended from the belt by a thong (Green 1973, 100–103, Fig. 3). They occur throughout the early Anglo-Saxon period, from the 5th to the 7th centuries (Hugget 1988, 68). Dickinson (1976, 227) noted that known Upper Thames valley examples were probably from late 5th and early 6th-century contexts. This can now be extended on the evidence from Berinsfield grave 107, which contained brooches datable to the mid 6th century.

Rings of iron and copper alloy occurred in seven groups at Berinsfield (graves 2, 5, 83, 101, 104, 125 and 150). Brown (1977, 95–7) noted that rings and ring-shaped objects were a common characteristic of bag collections, but their function remains unclear and the subject of debate. Large metal rings may have formed the frame for leather or cloth bags, as was suggested for Cassington, Purwell Farm, Oxon., grave 2 (Leeds and Riley 1942, 65, Fig. 15.c). Brown (1972, 109; 1977, 95–7) and Meaney (1981, 174–8) have suggested that both linked and unlinked rings may have been worn as amulets. Evison has since argued, however, that rings were widely used to hang objects from a belt, and that there was no evidence at the cemetery at Buckland, Dover, of the hoarding of rings as amulets (1987, 119). White (1988, 149) has recently suggested that the majority of these copper alloy and iron rings are likely to be Roman and I am grateful to him for further information he has supplied. A fondness for hoarding old objects in bag collections was noted by Brown (1977, 95–7), and recent writers have suggested that these reused items were kept as charms (White 1988, 160–1; Ager 1989, 223) or used to copy high-status items of personal wear only available to the most influential members of society (White 1988, 160–1, 163).

At Berinsfield, single rings were found in graves 2, 83 and 101. The example in grave 2 (2/2: Fig. 52) has the remains of another iron object corroded onto it and this may be from a suspended object. No trace of associated material was found with the examples in graves 83 (83/4: Fig. 70) and 101 (101/3: Fig. 71).

Groups of rings occurred in graves 5, 104, 125 and 150. In grave 5 (5/5: Fig. 53) two rings had corroded together and the remains of two other iron objects (5/5 and 5/6: Fig. 53), perhaps originally hanging from one of them, are preserved. One of the three iron rings (104/6: Fig. 75) in grave 104 is square, which may be significant as Ager has recently suggested that the objects in burial 10 at the King Harry Lane cemetery may have been contained in a square leather purse (Ager 1989, 223). A group of four copper alloy and iron rings (125/7: Fig. 78) occurred in grave 125, associated with a shale spindle whorl (see below) and a fragmentary iron pin. The iron loop in grave 150 (150/3: Fig. 81) is a loop-ended connecting link of a type discussed by Brown (1972, 113), for joining or attaching leather straps. Recent examples of these objects are given by Cook and Dacre, from Portway, Andover (1985, 93).

Iron fragments occurred in five graves (5, 102, 107, 125 and 150). The example in grave 5 (5/6: Fig. 53) has the remains of a tang and may be a firesteel, which have recently been discussed by Evison (1987, 110). The most complete group of fragments at Berinsfield occurred in grave 150, which contained three rods, two of which had slightly hooked ends, and a fragmentary blade. The rods may have been the remains of keys or latchlifters, a characteristic component of girdle groups for which very little evidence occurred at Berinsfield. The functions of keys, and recent examples, are discussed by Hirst (1985, 88) and in detail by Evison (1987, 116–7). Recent opinion on the significance of keys is summarised by Ager (1989, 224). Dickinson (1976, 230) noted examples of keys from seven Upper Thames valley cemeteries, of which five belonged to the late 6th and 7th centuries. The lack of evidence for these groups at Berinsfield may well, therefore, have chronological implications. Cook and Dacre have noted that a comparatively large number of burials with girdle groups at Portway, Andover, had no shoulder brooches, and this may reflect changes in dress over time (1985, 73, 92). It may be added that, at Berinsfield, girdle groups occurred with only two out of ten burials with saucer brooches (102 and 107), both of which also contained great square-headed brooches.

A shale spindle whorl (125/5: Fig. 78) was found with the collection in grave 125. Two other recent examples are noted by Evison (1987, 112), who suggests that they may be Roman survivals. Spindle whorls are extensively discussed by Meaney (1981), who considers that they may have had a symbolic as well as a practical function (see, for example, 1981, 95).

Other metal fragments, found in graves 22, 35 and 37, could not be securely associated with the burials.

THE BEADS

by Angela Boyle

Introduction

The classification of the glass beads from Berinsfield is based on the system employed for Buckland, Dover, which is one of the most extensive bead reports for an English cemetery (Evison 1987, 57–81). The conclusions reached by that author are not, however, necessarily accepted in every case. The dates from the best researched cemetery, Schretzheim in Germany (Koch 1977) cannot be applied directly as it appears to have been in use from AD 525–680 which is rather late in comparison with Anglo-Saxon cemeteries (Cook and Dacre 1985, 82; Hirst 1985, 96).

Amber beads have been the subject of rather more detailed attention in recent years (eg. Meaney 1981, 67–71; Dickinson 1976, 202–206) and the discussion which follows reflects that bias.

There were 397 beads from the cemetery at Berinsfield. They occur in 29 graves of which nineteen are female adults, seven are subadults, two are male adults and one is of unknown sex. This group comprises amber (271), monochrome glass (56), metal-in-glass (38), polychrome glass (19), shell (1 definite, 3 uncertain), stone (3), calcareous (2), crystal (1), faience (1), lead (1) and ironstone (1). It can be seen that amber accounts for well over half of the total assemblage, 68.2%; monochrome glass represents 14.1%; metal-in-glass 9.5%; and polychrome glass 4.8%.

Amber (Table 19)

(Graves 2, 5, 8, 10/1, 18, 21, 22, 35, 42, 49, 58, 63, 68, 77, 83, 91, 102, 104, 107, 130 and 134)

Amber beads are by far the most common type at Berinsfield and at many other sites across the country (eg Sewerby, Hirst 1985) and can be divided into three main types: barrels, wedges and discs. The other beads could not be placed into a specific category, except a six-facetted amber bead found in grave 22 and two long biconical Sewerby type D4 beads (Hirst 1985, 69, Fig. 24) from grave 10. It is clear that a number of amber beads had been broken and then re-used (eg 83/3, the largest amber bead in a group of seven, and 42/1) while a number had two perforations (eg. one example from grave 5 which would have facilitated the use of a leather thong to string the fragments together).

Amber is known in small quantities from contexts in the early 6th century, where it tends to occur as single beads (eg Holywell Row [Lethbridge 1931, 75] and Abingdon I [Leeds and Harden 1936]), and in Final Phase cemeteries. Its greatest period of use seems to be in the mid to later 6th century when large necklaces are found in graves (Meaney 1981,

67; Huggett 1988, 64). For the Thames valley Dickinson (1976, 202–206) demonstrated that amber had a *floruit* in the 6th century with a limited late 5th and early 7th-century presence. Fairford 1 (Wylie 1852, 12–13) and Lechlade grave 123 (Boyle *et al.* forthcoming) date from the late and mid to late 5th century respectively, while at the other end of the spectrum amber at Yelford 17 (Dickinson 1976, 238) and Standlake I, 10 and 23 (Dickinson 1976, 204, 206) may be in 7th-century burials.

Table 19 Amber beads

Shape	Grave no./ cat. no.	Quantity in each grave	Totals
wedge/disc	2/1, 21/1, 35/3, 49/3, 63/3	1	5
/barrel	134/1	2	2
	22/2	3	3
	10/1/1	4	4
	8/3	5	5
	83/3	7	7
	91/3	8	8
	130/3	9	9
	5/3	12	12
	42/3	16	16
	18/3	18	18
	107/1/3	27	27
	104/3	30	30
	102/4	105	105
Subtotal			251
biconical	10/1/1	2	2
facetted	22/2	1	1
irregular	8/3, 63/3, 68/1	1	3
/unclear	77/4	2	2
	58/3	3	3
	91/3	9	9
		Total	271

At Sewerby amber was seen to date to the second half of the 6th century (Hirst 1985, 75). Evison (1987, 57) further emphasised the strength of this argument with the publication of the evidence from Dover where amber was concentrated mainly in 6th-century graves, with the largest strings of 70 and 74 beads being recovered from graves 38 (phase 3 AD 575–625) and 92 (phase 2 AD 525–575).

As regards the function of amber, Meaney has argued (1981, 67–79) that it may have been thought to have amuletic and curative properties, described in classical sources (most famously in Pliny's *Natural History*), as opposed to a merely decorative purpose, though it was undoubtedly attractive in appearance. It is known that the use of amber for amuletic purposes was condemned by churchmen on the Continent (Meaney 1981, 70), for instance in early 6th-century southern Gaul by Caesarius of Arles. Although copies of his condemnations appear in English material, like Egbert's Penitential, Meaney (1981) does not believe that they can be accepted as a secure indication of conditions in England. Evison has argued (1987, 67) that amber does appear in a number of the earliest Christian graves, and therefore if a ban was in operation the corresponding decline was slow. It has also been suggested (Evison 1987, 67; Meaney 1981, 70) that the decline in the popularity of amber can be explained by a decrease in trade with the N, and a corresponding increase in trade with the Mediterranean as a result of the spread of Christianity. Lethbridge (1931, 75) and Meaney (1981, 71) were of the opinion that where single beads are associated with children or adolescents (a not uncommon occurrence) they served an amuletic function. At Berinsfield there are several instances where just such a function may be suggested: in grave 2 (2/1: Figs 36 and 52) an amber bead was located below an infants skull; and in grave 8 six beads (8/3: Fig. 54), on both sides of the left upper arm of an adult female were found (Fig. 37).

Elsewhere single beads have been recorded by the hands or at the waist (Petersfinger LI), apparently sewn onto clothing and as sword beads, a custom derived from the Franks (Meaney 1981, 68). It has been suggested (Meaney 1981) that in a number of cases the objects described as sword beads (eg calcareous examples) must have been amuletic or decorative since they were not in fact sufficiently durable to function efficiently. The presence of beads at the waist of males lacking swords is further justification for a symbolic or magical purpose for such objects (eg. the combed cylinder from grave 28 (28/7 discussed in more detail below).

Glass

The glass beads have been divided into monochrome, polychrome and metal-in-glass types. Further division is based on shape and style of decoration where applicable. The division of forms is based on the classification of beads into 24 basic categories, from the cemetery at Dover (Evison 1987, 58, text Figure 11) though as Evison states (1987, 61) the lack of precision and uniformity in the manufacture of the beads reduces the value of applying a very rigid and detailed classification to the material. No real attempt was made to match the decoration of individual beads from Berinsfield with Dover examples though general categories were applied. The present author had particular difficulty in a number of cases in distinguishing short cylinders with rounded sides from discs. In general discs had a smaller perforation with a diameter much greater than the height.

All perforations are roughly circular and all glass is opaque except where translucency or transparency are specified.

Monochrome glass (Table 20)

The highest concentration of monochrome beads was found in grave 104 which contained 19 examples, as well as 30 amber and 11 metal-in-glass beads. The remainder were quite widely distributed, occurring in 13 out of 29 graves which contained beads.

Disc

(Graves 8, 58, 64, 83, 102, 104, 118 and 125)
There were ten disc beads (Dover B01). Examples were translucent blue (8, 83), translucent sea-green (102, 125), rust-red (83), yellow (118) and grey-black (58). One example was made from completely transparent glass (104).

Short coiled and coiled cylinders

(Graves 10/1 and 104)
Thirteen short coiled and coiled cylinders (Dover B63) were identified. Only near black examples were present.

Annular

(Graves 10/1, 49, 83 and 130)
There were 14 blue and near black translucent annular beads (Dover B64). The near black examples, whose true colour is often difficult to determine, have a wide chronological range while blue annular types are found from the 6th century BC, are common in Roman contexts, and appear regularly in the 5th and 6th century AD (Guido 1978, 67). Examples occur at Howletts 26 and Mucking 355 which have been dated to the 5th century. They are also common in 5th-(graves 33/2 and 45) and 6th-century contexts (graves 18 and 50) at Lechlade (Boyle *et al.* forthcoming). At Dover they were concentrated in phase 3, AD 575–625 (Evison 1987, 62). Hirst claims (1985, 75) that blue annular beads at Sewerby tended to occur in poorer contexts and were never associated with elaborate polychrome beads. However this pattern was not evident at Portway (Cook and Dacre 1985, 81–87), and in grave 18 at Lechlade, the richest in the cemetery, they were associated with amber, metal-in-glass and monochrome beads.

Table 20 Monochrome glass beads

Shape	Grave no. /cat. no.	Quantity in each grave	Totals
disc	8/3, 64/2, 102/4, 104/3, 118/1, 125/3	1	6
	58/3, 83/3	2	4
Subtotal			10
coiled cylinder/short	101/1/1	4	4
coiled cylinder	104/3	9	9
Subtotal			13
annular	83/3, 130/3	2	4
	101/1/1	4	4
	49/3	6	6
Subtotal			14
short cylinder rounded	22/2	1	1
	130/3, 134/1	2	4
	104/3	9	9
Subtotal			14
biconical	54/3	1	1
	22/2	2	2
Subtotal			3
melon	64/2	1	1
pentagonal cylinder	22/2	1	1
		Total	56

Short cylinder rounded

(Graves 22, 104, 130 and 134)
The short cylinder rounded (Dover B19) was the most common type of monochrome bead with 14 examples being recovered from the site. Colours include yellow and translucent brown-black. Evison (1987) believes that at Dover this type was a later development. However at Lechlade a yellow example was present in grave 18 which is likely to date to the second half of the 6th century. They would appear to be a broadly late 6th-/early 7th-century phenomenon although Evison (1987) noted an example from Dover dated to AD 700–750.

Biconical

(Graves 22 and 54)
Three biconical beads (Dover B53) in blue and translucent yellow were found.

Pentagonal cylinder

(Grave 22)
There was one pale blue pentagonal cylinder (Dover B21). Guido (1978, 96, Fig. 37, no. 9) discusses examples from the Roman period which are commonly light green and is of the opinion that blue examples are less common and may prove to be post Roman in date.

Melon

(Grave 64)
The only monochrome melon bead (Dover B43) was translucent blue. As a result of its long period of use this type is extremely difficult to date. Hencken in his discussion of the Lagore crannog in Ireland (1950) argued for a period of use spanning all periods from pre-Roman through to Viking contexts, however no pre-Roman examples have been identified in Britain (Guido 1978). Manufacture in Britain is likely to have continued from the Roman period when the most common colour was blue or green. Examples from the post Roman period appear to be less well made with 'slap-dash nicks rather than true gadroons' (Guido 1978, 100). Consequently they should be easy to distinguish from the more worn, earlier examples (Guido 1978; Meaney 1981). The most common Germanic types are yellow. At Lechlade they occur in 5th, 6th and 7th-century contexts in turquoise, near black, yellow and green (Boyle *et al.* forthcoming). Two dark green-blue examples are present at Dover in phase 5 (AD 650–675) and phase 6 (AD 675–700) (Evison 1987, Tab. 13).

Drawn-cylinder

(Graves 10/1, 35, 91 and 102)
There were five blue drawn-cylinders (Dover C01). This type also has its origins in the Roman period becoming particularly popular after the 2nd century. They continue in use and are common in 6th- and 7th-century Continental cemeteries (Guido 1978, 95). They are known to occur in association with amber, crystal and metal-in-glass types (eg at Lechlade graves 18 and 163).

Table 21 Polychrome glass beads

Shape	Form of decoration	Grave no. /cat. no.	Quantity in each grave	Total
short cylinder rounded	crossing waves and dots	21/1	1	1
		22/2	4	4
	crossing waves	22/2, 134/1	2	4
	dots	130/3	3	3
cylinder	crossing waves and dots	22/2	1	1
	combed decoration	28/7	1	1
disc	waves (do not cross)	22/2	1	1
	bands and dots	125/3	1	1
biconical	crossing waves, central band and dots	66/3	1	1
	dots	22/2	1	1
melon	coloured central core	83/3	1	1
			Total	19

Polychrome glass (Table 21)

Nineteen polychrome beads were recovered. They comprise ten different types (classified on the basis of bead shape and form of decoration *not* colour of decoration). The majority are likely to have been marvered. If one follows the argument of Evison (1987) and accepts the lack of uniformity in bead form, colour and decoration a flexible approach in the search for parallels might be applied. Therefore two beads of different form but similar decoration may be related.

Nine of the decorated beads were found in grave 22 (22/2: Fig 56), three of them were unique within the cemetery. Four other types derived from four different graves. All incorporated one or more of the following: crossing waves, dots and central bands. The only exception was the combed cylinder from grave 28. The predominant colours were red, blue, yellow, white and grey-black, all of which are paralleled elsewhere. Meaney (1981) argued that the most elaborately manufactured (ie decorated) types with string-sized holes are late pagan in date (6th century).

Short cylinder rounded

(Graves 21 and 22)
Five of the examples from Berinsfield were decorated with crossing waves and dots (pale blue waves and red dots on off-white, rust-red waves and dots on yellow, white waves and dots on grey-black). In Lechlade grave 78 an off-white short cylinder rounded with blue crossing waves and dots was found in association with an amber bead and a pair of saucer brooches, dated to AD 525–550 (Boyle *et al.* forthcoming).

(Graves 22 and 134)
Four examples were found decorated with crossing waves only (pale blue trails on off-white, off-white trails on rust-red).

(Grave 130)
Three beads were found decorated with dots only (blue dots on off-white).

There was one example each of the remaining seven types, which were:

Cylinder

(Grave 22)
Crossing waves and dots (yellow waves and dots on red).

(Grave 28)
Combed decoration (canary yellow and wine-red on grey-black).

Disc

(Grave 22)
Non-crossing waves (dull yellow on grey black)

(Grave 125)
Bands and dots (red and black bands, red dots on off-white)

Biconical

(Grave 22)
Dots only (white on dark blue). The saucer brooches in grave 22 suggest a date for this bead of the late 6th or early 7th century. An example with almost identical decoration was found at Lechlade in grave 25 where an associated saucer brooch indicated a 6th-century date (Boyle *et al.* forthcoming). Also at Lechlade blue examples with red dots were present in the probable 6th-century grave 101 but also in the 7th-century grave 17. Dickinson (1973, 253) compares an example from Standlake 24 to those from grave 3, Chamberlains Barn I (Hyslop 1963, 188) and suggests a late 6th- to early 7th-century date, but it would appear that this type of bead has a 6th- to 7th-century date range and is therefore of limited dating value.

(Grave 66)
Crossing waves, dots and a central band (blue waves and dots, red band on grey-black). A similarly decorated bead in a probable 6th-century context is known from Lechlade, grave 77. It is a red bicone with yellow and blue-green inlay which is overlaid by a band of red.

Melon

(Grave 83)
Transparent with a red core.

Discussion

Crossing waves (double swag or interlacing wavy lines) are the most common form of decoration on Merovingian beads (Koch 1977, 206). At Schretzheim polychrome beads with crossing waves or crossing trails and dots are mainly present in *Stüfe* III, AD 565–595/600, and early *Stüfe* IV, AD 590/600–625/630 (Koch 1977, 202, Farbtaf. 2). At Dover they are concentrated in phase 3 (AD 575–625) (Evison 1987, 63) but have a range which extends from AD 575–675. Dickinson (1973, 253) believes them to be largely a pre-7th-century feature and, in general, they do seem to occur in 6th-century contexts. For instance at Portway (Cook and Dacre 1985, 82) and at Lechlade (Boyle *et al.*) decorated beads derive from 6th-century contexts, with only one 7th-century exception (Lechlade 17). They are present at Sewerby from *c* AD 480–550, while Down and Welch (1990, 99) suggest a mid 6th-

to mid 7th-century date range for their appearance at Appledown.

Meaney (1981) has argued that much of the decoration on glass beads, particularly dots or symbolic 'eyes' were designed as a means of protection against the evil eye. However, this explanation cannot encompass crossing waves, stripes and combed decoration.

The combed cylinder is of particular interest. It occurs in grave 28, that of a male individual aged 40-45 years old in association with two spearheads, two knives and a shield boss. The bead was located in the vicinity of the left elbow. Dickinson notes only two Thames valley examples of combed decoration (1976, 210): Standlake I, 19 and Cassington I which is not certain. The Standlake grave dates to the late 6th-early 7th century. Similar types were found at East Shefford XII (5th century?) and Reading I, 7a (6th century). Examples from Dover occur in phase 1 (AD 475–525) and phases 3 and 4 (AD 575–650) (Evison 1987). An example from Lechlade grave 101 appears to date to the 6th century. Where beads appear in the graves of male individuals they are generally believed to have functioned as sword beads or toggles (Lethbridge 1931) although Meaney (1981) has argued that most of those so described would not have been sufficiently strong for that purpose. Clearly when beads are found in male graves without swords this argument cannot be upheld. This is the case at Berinsfield and also at Mitcham, Surrey 223 (excavation record here uncertain) and perhaps at Sarre XCII which contained the burial of a child with a shield (the possibly amuletic nature of these beads is discussed above in relation to amber).

Table 22 Drawn glass beads

Shape	Colour	Grave no. /cat. no.	Quantity in each grave	Totals
cylinder	blue	101/1/1, 35/3, 102/4	1	3
		91/3	2	2
Subtotal				5
globular	metal-in-glass	102/4	1	1
		107/1/3	3	3
		91/3	5	5
		104/3	6	6
Subtotal				15
globular double	metal-in-glass	102/4, 107/1/3	1	2
		68/1	3	3
		104/3	5	5
Subtotal				10
globular triple	metal-in-glass	68/1, 107/1/3	2	4
		102/4	5	5
Subtotal				9
			Total	39

Metal-in-glass (Table 22)

(Graves 68, 91, 102, 104 and 107)

Three types of metal-in-glass beads were identified (Evison 1987, 58, text Figure 11). They were drawn-globular C05 (15), drawn-globular double C06 (9) and drawn-globular triple C07 (9). All of the beads were grey or yellow in colour. No attempt was made to define metal content. Metal-in-glass beads have been recorded in 17 Upper Thames valley graves at Abingdon I, Bassett Down, East Shefford XII, Fairford, Filkins, Hampnett 7, Long Wittenham I, Lower Heyford and Wheatley and on six unassociated strings. The number of triple examples at Berinsfield is interesting as it has been claimed that they occur only rarely in the Upper Thames valley (Dickinson 1976, 211) and they are also present in substantial numbers at Lechlade. However, classification by segment number is questionable given the techniques of manufacture. These are discussed in detail by Boon (1977) and summarized by Guido (1978, 93–94) and Hirst (1985, 66). The glass was crimped into segments and portions broken off as required or at the weakest points. It seems likely therefore that the number of segments would have been largely a matter of personal choice and/or convenience.

Metal-in-glass beads are common in cemeteries of the late 5th and 6th centuries. They are regularly associated with amber and with drawn-cylinders, a type of bead which is relatively uncommon, at sites in the Thames valley like Standlake I, Longcot and Frilford (see Dickinson 1976, 211 and note 6, 215 for a complete list). Dickinson states that 'their period of use would seem to coincide with that of amber, though few come from later 6th century graves...nor do they necessarily occur in the richest graves,' (1976, 211). The context of metal-in-glass beads has

already been mentioned with reference to polychrome beads. At this cemetery the type is regularly associated with amber, drawn-cylinders and blue annular beads but never with polychrome examples. All the dated graves in which they occur seem to be 6th century and in general reasonably well furnished.

Rock Crystal

(Grave 54)
Only one crystal bead was found in grave 54 which was comparatively rich in grave goods relative to the rest of the cemetery and contained a 30–35-year-old female. It was associated with a monochrome biconical bead. The lack of amber is perhaps significant as Dickinson (1976) noted only one out of 18 graves in the Upper Thames Valley with a crystal bead in which amber was not present. Crystal beads are found in 6th and early 7th-century contexts (Huggett 1988, 70). In the Upper Thames valley they are more prevalent in the first half of the 6th century, while Meaney notes that elsewhere they are more common in the second half of the 6th century (1981).

In common with most other examples the Berinsfield crystal is a large pentagonal (23 x 39 x 10.5 mm) with five facets at the top and bottom and a further ten around the middle of the bead. Although they are common necklace components (see Dickinson 1976 and Meaney 1981 for details of examples) a number are described as chatelaine components for instance at Petersfinger LXIII and Brighthampton 22 in which an elongated crystal lay by the thigh of an adult female. The crystal from Berinsfield was in a similar location though there were no closely associated objects. It may have hung from some sort of belt or served as the fastener for one.

Meaney (1981) considers that crystal beads may have functioned as spindle whorls, as their naturally attractive form would have caught the light during the spinning process. In addition the material's attractiveness would have facilitated its use as an ornament.

Table 23 Beads of other materials

Material	Grave no./ cat. no.	Quantity in each grave	Total
calcareous	22/2, 77/4	1	2
crystal	54/7	1	1
stone	29/4, 125/3, 127/1	1	3
lead	91/3	1	1
shell	63/6,	1	1
	64/2	3	3
faience	107/3	1	1
ironstone	18/3	1	1
		Total	13

Faience

(Grave 107)
A faience melon bead was part of the assemblage of 34 beads in grave 107 (a summary concerning the chronological range and manufacture of this type can be found above in the section on monochrome glass beads). They have been recorded at a number of Thames valley sites including Abingdon I, Brighthampton 49, Fairford, Filkins, Longcot, Lower Heyford and Minster Lovell.

Miscellaneous stones

(Graves 29, 125 and 127)
The stone category comprises two perforated flat stones and an elaborately carved pebble. They appear to have served as pendants. The example in grave 29 was associated with a probable male individual. In the case of graves 29 and 127 they were the only 'beads' present. The granite-like stone in grave 125 is elaborately carved and is associated with a monochrome glass disc and an elaborately decorated polychrome disc. It is possible that these pebbles served as a less expensive substitute for glass or amber. There were no associated finds in grave 127 while grave 29 contained a bucket and shield boss. Meaney (1981, 99) suggests that stones with a natural perforation such as in grave 127 were perhaps regarded in a special way, because they were easy to carry (Budge 1930, 19) and they were believed to protect men against witches and nightmares (eg John Aubrey's *Miscellanies*). Other examples have been found at Kingston 299 where it was recovered from a wooden box with a silver garnet brooch, a pendant and a cowrie shell, and Brighthampton 49 where it consisted of a natural perforated disc-shaped piece of limestone (Dickinson 1976, vol II, 57).

Other materials

This category comprises eight beads: one shell, three possible shell (material uncertain), two calcareous, one lead and one ironstone. Parallels for all of these are discussed by Meaney (1981) in her section on miscellaneous materials. She argues (1981, 96–7) that calcareous beads or pendants first appear in 6th-century graves. At Dover they may be slightly earlier (Evison 1987, 60) with a suggested date range of AD 475–525. Shell beads do not appear to have any chronological significance (Meaney 1981, 128).

Bead strings

Necklaces would generally have been worn either around the neck or as a festoon hung between two brooches positioned on each shoulder. Unfortunately the degree of disturbance at

Berinsfield makes it difficult, often impossible to ascertain their precise arrangement. For the same reason it is not possible to determine the order of beads within a string. In eighteen graves beads were associated with a pair of saucer brooches but the number of beads present makes it seem unlikely that they were worn anywhere other than around the neck. Lethbridge (1931, 76) noted approximately 30 amber beads around the neck of the individual in Little Wilbraham 6 despite the presence of two annular brooches, one on each shoulder. The lack of concrete evidence therefore prevents profitable discussion of the beads with the exception of a small number which were located in rather more unusual positions such as under the skull, by the hand or by the pelvis (these are discussed above).

Two 'necklaces' may have incorporated features other than beads. In grave 64 a pierced copper alloy coin, a copper alloy ring and two decorated 'spangles' or *klapperschmuck* were found in association with the beads (monochrome disc and melon, three beads of uncertain material). They are identical triangles of beaten copper alloy with one perforation at the apex and a further three at the opposite edge. A perforated copper alloy disc was associated with 34 beads in grave 107. Spangles have often been found as part of necklaces (eg Holywell Row 1), but they appear to have had a number of other functions. Meaney (1981) believes that they were primarily hair ornaments and not amuletic. Other decorative examples have been found in association with a drinking cup from Fairford (Wylie 1852), a brush holder from Lechlade 163, and a bone pendant pierced and suspended from a brass ring along with three brass spangles found in Lechlade 133 (Boyle *et al.* forthcoming). Given the fact that they do have other functions it must be seen as speculative to assign them a necklace function when they derive from a disturbed context.

Table 24 Details of burials containing buckets

BUCKETS
by Jean M Cook

(Graves 29, 51, 54, 69, 102, 149)

Six graves in the cemetery contained identifiable buckets and there are a further five which included fragments of copper alloy sheet or strip or, in one instance, remains of iron bands (see table 24 for details).

The bucket in grave 29 (29/3: Figs 21 and 58) was found with a group 2 shield boss with short flat grip, dated by Härke (this volume: Table 5) to the 6th century. All the bucket fittings are copper alloy. There are four hoops, a separate U-sectioned rim originally in one piece with a butt-joint behind one of the handle mounts, and four uprights. All the hoops are plain and the uprights are decorated with two incised lines parallel to each long edge. There are two handle mounts, matched by fish-plates on the insides of the bucket and each originally attached to it by two dome-headed rivets. The handle itself was attached by rivets running between the handle mount and the fish-plate on each side of the bucket. It is expanded in the centre and the only decoration consists of two incised lines parallel to each long edge.

The handle mounts are bicornute, the ends being cut off rather bluntly. Dickinson (1976, I, 368) comments that the profile of these mounts is similar to that on the bucket from grave 31 at Brighthampton, Oxon. (Evison 1965, 31–2), though in the latter case the ends of the mounts clearly show the tongue of which there is only the barest trace in the Berinsfield example. Another possible parallel comes from grave 600 at Mucking, Essex (Evison 1973, 269). Both these buckets are more elaborate than the Berinsfield example and Evison considers the Brighthampton one to be Frankish (1965, 42). She dates it not later than the middle of the 5th century which is supported by the associated grave goods. The Mucking bucket is 6th century and belongs to a type which is often found in Merovingian graves in Germany (Evison 1973, 270).

Grave number	Sex	Age	Bucket details	Position in grave	overall date
29	?male	c 16 years	copper alloy fittings and handle	by head on right hand side	475–575
51	male	20–25 years	iron fittings and handle	by legs in bottom right hand corner	450–550
54	female	30-35 years	copper alloy fittings, no handle	behind head	500-550
69	male	25-30 years	iron fittings and handle	by left shoulder	475-550
102	female	15-20 years	copper alloy and iron fittings, iron handle	behind head	530-560
149	?	6-7 years	copper alloy fittings, iron handle (?)	by head on left hand side	? c 500

Figure 21 Restored bucket from grave 29

The fabric traces found on the bucket suggest that a linen cloth was fastened over the top (see Crowfoot, this volume).

The bucket from grave 54 (54/10: Fig. 65) had been flattened *in situ*. The fittings are of copper alloy and consist of a piece of the uppermost hoop, with remains of a separate U-sectioned rim, pieces of at least one other hoop and the remains of one upright. The upright contains three rivet holes, suggesting that originally there were three hoops, and there were almost certainly two uprights and possibly four. The hoops are plain but the upright is decorated with repoussé dots parallel to both long edges and across one end. The other end is missing. There is no evidence for any kind of handle.

In contrast the wood of this bucket was well preserved, though it has not been identified. Notes from the conservation laboratory at the Ashmolean Museum record five good staves measuring 51 mm (2") across, all of which showed the groove cut on the inside to take the base.

Stave-built vessels without handles are known from several sites, but they are often larger and more ornate than the Berinsfield example. A similar small and simple vessel was found at Cassington, Oxon. (Harden 1940, 163) but it had no uprights and its date is uncertain. The Berinsfield bucket was associated with a pair of saucer brooches which suggest a date of AD 500–550 (Dodd, this volume)

The bucket from grave 149 (149/1: Fig. 80) was the only artefact in the grave. The fittings are of copper alloy and consist of four hoops, a separate U-sectioned rim and four uprights, two of which project beyond the rim of the bucket to support the handle, which seems to have been of iron. The hoops are undecorated but all the uprights are decorated with a double row of repoussé dots parallel to the edges. In addition, the shorter uprights have a central row of three repoussé bosses positioned between the dome-headed rivets, and the extended uprights have a central row of punched circle-and-dot decoration. Attached to the extended uprights just where they meet the bottom edge of the top hoop are suspended copper alloy discs, slightly convex and decorated with the same punched dot-and-circle motif. One is still in position on the bucket and the other, which had become detached, was found during excavation.

The occurrence of pendant attachments, or spangles, on buckets has not yet been studied in any detail. There are triangular-shaped ones on a reconstructed bucket from Haslingfield, Cambs. (Fox 1923, 255–9), in the Ashmolean Museum, but they are attached at the bottom of the uprights, perhaps indicating an incorrect reconstruction. The associated finds for this bucket were not recorded, though Fox states that the main cemetery, discovered in 1874–5, contained several finds of early date. Circular pendants like the ones on the Berinsfield bucket, are found on a bucket from Higham, Kent (Meaney 1964, 123), in Rochester Museum. There were three on each side, made of copper alloy and undecorated. Like the Berinsfield spangles, those on the Higham bucket have a central hole as well as the one by which they were suspended. A similar pendant was found in a female grave on Leagrave Common, Beds. (Meaney 1964, 38), together with two copper alloy disc brooches. This pendant also had two holes of which one was presumably for suspension. By analogy with these examples a date for the Berinsfield bucket around the beginning of the 6th century is possible.

Grave 102 (102/9: Fig. 74) was the richest female burial in the cemetery, dated by its grave goods to 530–560. The bucket had an upper hoop of copper alloy with a separate U-sectioned rim and at least two and probably four copper alloy uprights, from the evidence of the holes in the hoop. The small piece of the one upright which remains is decorated with a double row of repoussé dots parallel to the long edges. There are also remains of what are said to have been three iron hoops round the lower part of the bucket. These are now very fragmentary and it is not easy to distinguish pieces of three separate hoops, but the fragments do seem to confirm the bucket diameter as given by the copper alloy hoop. There is no evidence for any handle, but the grave inventory refers to traces which might suggest that it was made of iron.

Two other graves contained buckets, graves 51 and 69, both of adult males. Each contained the remains of iron fittings from buckets. Grave 51 (51/5: Fig. 62) produced fragments of four iron hoops, the bottom three having a ridged cross-section. The size and tapering shape of this bucket have been estimated using the diameters of the hoops. The bucket had two simple bifurcated iron handle mounts and an iron handle, square in

section, but flattened in the middle to provide a grip, and hooked at each end for attachment. Associated grave goods included a spearhead and shield boss with short flat grip dated by Härke (this volume: Table 5) to AD 450–550.

Grave 69 (69/4: Fig. 68) included the remains of three iron hoops and an iron handle suspended from simple bifurcated handle mounts. The lower hoops have a plain cross-section. Associated grave goods included a spearhead and shield boss with short flat grip, dated by Härke (this volume: Table 5) to AD 475–550.

Evison has recently noted that iron-bound buckets were known in the Roman period and continued into the Merovingian period on the Continent (1987, 104). Examples from the Anglo-Saxon period in England come from a wide range of sites, but no close study has so far been made. Five were found in the cemetery at Lechlade, Glos. (Rutter and Cook, forthcoming), and others are known from Ipswich, Suffolk (Layard 1907, 342), High Down, Sussex (Read 1895, 375–6), Bergh Apton, Norfolk (Green and Rogerson 1978, 19, Fig. 76 HJK), Petersfinger, Wilts (Evison 1965, Figs 19a and b), Dover, Kent (Evison 1987, Fig. 29, 7) and the Sutton Hoo ship burial (Bruce-Mitford 1975, 442, items 117, 118, 119; East 1983).

The buckets at Berinsfield occurred with both children and adults and in male and female burials. The only instance of burial at the foot of the grave was that of an iron-bound bucket in grave 51, the grave of an adult male. In contrast, the other iron-bound bucket was found by the left shoulder, in grave 69, also that of an adult male. The two buckets in the female graves 54 and 102 were both behind the head, but the vessels were different, that in grave 54 having only copper alloy fittings and no handle, and that in grave 102 having copper alloy fittings and an iron handle. The buckets in grave 29 and grave 149, one of an adolescent and one of a child, were by the head, on the right hand side in grave 29 and on the left hand side in grave 149.

It has been suggested that buckets are high status objects and there is some evidence to support this view from the Berinsfield cemetery. Grave 29 was large and lined with limestone blocks (Fig. 39). The principal associated object was a shield boss, but the absence of swords from this cemetery means that the presence of other weapons assumes a greater significance. As well as being the richest female burial, grave 102 contained a deposit of rushes spread over the body. Grave 54 was relatively rich in terms of other objects buried. Grave 149, which contained the bucket with spangles, had no other grave goods. This was the grave of a child aged 6–7 and the presence of the bucket is difficult to explain unless it was deposited to mark the status of the child or of the family.

The relative scarcity of buckets in grave good assemblages might also be taken as an indicator of their value. They would have been craftsman-made, and would have required knowledge of both metal working and coopering. The iron-bound vessels may perhaps be technically more advanced in that the hoops were presumably shrunk onto the bucket, thereby dispensing with the need for uprights to hold the hoops tight, but this does not necessarily mean that they were later in date. None of the examples from Berinsfield provided any evidence of contents.

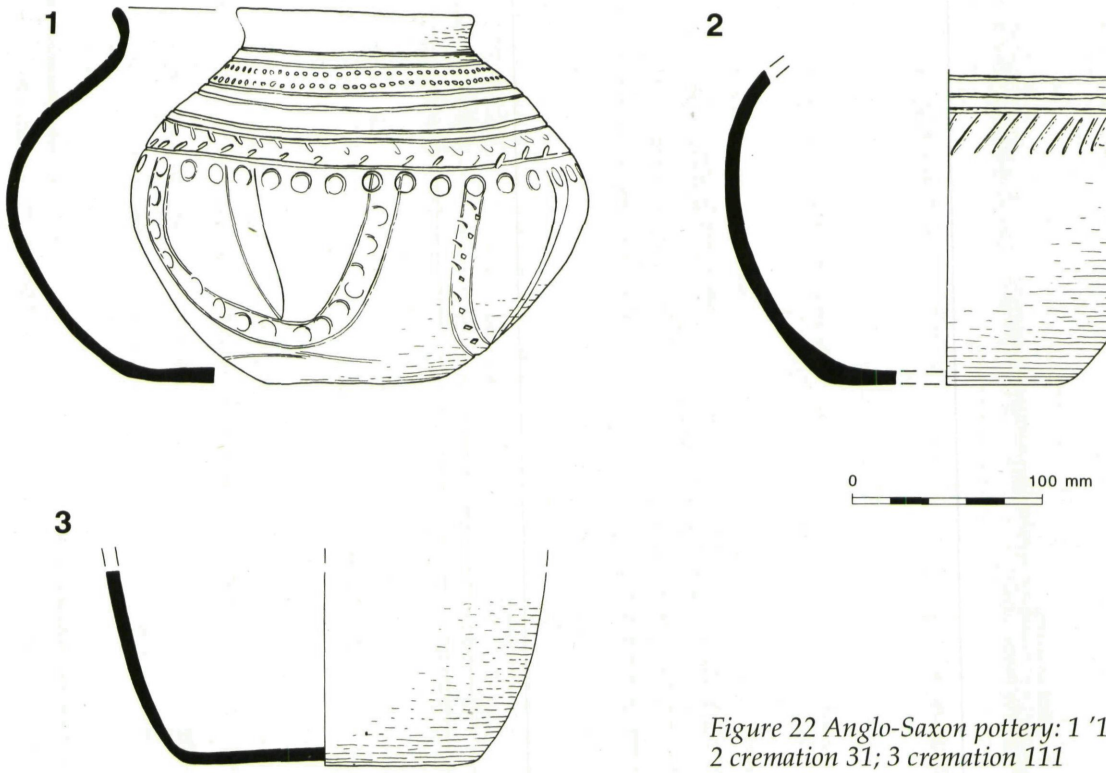

Figure 22 Anglo-Saxon pottery: 1 '1980' pot; 2 cremation 31; 3 cremation 111

Other fragments

Fragmentary fittings came from graves 26, 34, 52, 83 and 101.

Grave 26 contained a thin rectangular copper alloy plate decorated with two rows of repoussé dots and a row of punched crescents. As the illustration shows, it contained two rivet holes and the remains of a third. It may have had four altogether but the fourth corner had been broken off. This kind of rectangular plate is not an obvious fitting for a bucket though the rivet holes suggest that it may have been a decorative mount of some kind (see Dodd: Buckles and belt fittings, this volume).

Grave 34 contained some fragmentary iron bands, found on the left side of the head, which may have been bucket fittings. No handle or handle mounts were recovered.

In grave 52 there were two fragments of copper alloy sheet, behind the head. One is a rectangular plate, similar to that from grave 26, but undecorated. Neither fragment suggests a normal fitting for a bucket.

There were two fragmentary copper alloy strips in the top right hand corner of grave 83, one with a rivet. Their narrow width (c 6 mm) makes it unlikely that they were bucket mounts though the curvature and the rivet suggests that they could have been fittings for a bowl.

Grave 101 contained two fragments of copper alloy strip and two copper alloy hinges with iron pins. None of these is likely to have come from a bucket, but they may have been fittings for a wooden box or leather container.

Table 25 Correlation of Anglo-Saxon pottery fabrics with context type: quantification by number of sherds and weight in grams (in brackets)

Context type	Fabric 1	Fabric 2	Fabric 3	Fabric 4
cremations		1P (31)		1P (111)
grave goods	7 (129) + 1P (64)	12 (160) + 1P (61)	2P (103)	
grave fills	9 (49)	23 (161)		
other features	1 (3)	1 (4)	9 (90)	1 (4)
unstratified		7 (78)		
Totals (excluding weight of complete pots)	17 (181) + 1P	43 (403) + 2P	9 (90) + 2P	1 (4) + 1P

P = complete vessel

THE ANGLO-SAXON POTTERY
by Paul Booth

(Graves 26, 61, 64, 103 and 104; Cremations 31 and 111)

The total quantity of Anglo-Saxon pottery was small. Fragments of four cremation urns were found, though only two of these (nos 31 and 111: Fig. 22.2 and 22.3) could be traced subsequently. Four 'complete' vessels occurred in inhumation burials, but one of these was stolen from the site before it could be recorded (grave 26). The three extant vessels in this group are all small, and the stolen pot may have been similar in this respect.

In addition, a large part of a decorated vessel in grave 104 (104/5: Fig. 75) was almost certainly intended as a grave good and the same is perhaps true of a large rim sherd in Grave 91 (91/6: Fig. 71) and of a number of body sherds in Grave 134 (134/4: not illustrated). All the remaining Anglo-Saxon pottery in graves occurred as small sherds (32 sherds weighing 210 g) probably accidentally incorporated in the grave fills, as seems to have been the case with the Roman sherds (see Roman pottery report, this volume). One further vessel requires mention. This is a large part (about half) of a decorated urn found 'in the vicinity of the 1974 excavations' and presented to the Ashmolean Museum in 1980 (accession 1980.303), hereafter referred to as 'the 1980 pot' (Fig 22.1). Its precise find-spot is unknown but the vessel must certainly have derived from the cemetery. The context is uncertain. It is unlikely that this was a cremation urn since all the other known urns have had their tops removed by ploughing. If the extant part is all that survived it is possible that it had been incorporated in a grave fill in the same way as the fragmentary vessel in Grave 104.

Fabrics

The fabrics of the 'complete' vessels have been described in the grave catalogue. These descriptions, and that of the fabric of the 1980 pot, are based on observation of the external surfaces only. More detailed examination was possible for the remaining material, but time constraints precluded extensive work.

Four distinct fabric groupings were identified on the basis of the principal inclusion types. These were 1) quartz tempered, 2) quartz and organic tempered, 3) organic tempered, 4) quartz and limestone tempered. The last of these was only represented by a single sherd and one cremation vessel and may be regarded as a distinctive fabric in its own right. The other groups may have contained more than one fabric; for example differences were noticed in the size and frequency of quartz grains in some sherds, but the significance of any such differences is unclear in such a small group. There were certain occasional inclusion types which could occur in any of the main fabrics. These included iron ore, fine flint and mica.

Table 25 shows the correlation of the fabric types with contexts. Despite the small size of the group this shows some interesting links which may have a bearing on the chronology of the pottery. Quartz-tempered fabrics, which would be expected to be the earliest in the area (cf. Avery and Brown 1972, 80–81), were relatively scarce, but were found in the fills of four graves, two of which (32 and 54) were not closely datable and the other two (in which the fabric was associated with sherds of fabric 2) were of the later 6th century or later. Most importantly, the small plain carinated bowl in the early-mid 5th century grave 64 is in a quartz-tempered fabric. The significance of the use of sand-tempered sherds as possible grave goods in grave 134, possibly of 6th century date, is unclear.

Fabric 2, with mixed quartz and organic tempering, was the most common fabric in the Anglo-Saxon assemblage. One cremation vessel (31: Fig. 22.2) was in this fabric, which was also used for the small complete vessel in grave 61 (61/4: Fig. 66), probably of early 6th-century date, and for the fragmentary vessels used as grave goods in Graves 91 and 104, both also assigned to the 6th century. Sherds in this fabric occurred in the fills of a further dozen graves, the earliest of which were graves 5 and 6, assigned to the late 5th or early 6th centuries. Four of the graves were of uncertain date, but the remainder were firmly 6th century or later. One of these graves, 77, dated to the mid 6th century, contained sherds from the fabric 2 cremation urn 31, which is thus given a secure terminus ante quem.

Fabric 3 was found in two pits and a ditch fill in the S part of the site and did not occur in grave fills, but the quantities are so small that this may not be significant. It was also used for the vessel in grave 103 (103/1: Fig. 74) and the 1980 pot, which was probably a grave good. Neither of these were associated with any other dating evidence though the decoration of the 1980 pot suggests a 6th-century date (see below). Fabric 3 is equivalent to the grass-tempered fabric which was the only one identified at Didcot (this volume). As with fabric 3 the absence of associations with fabric 4 do not permit any conclusions about its date.

The limited evidence supports the conclusion that quartz-tempered fabrics were the earliest used and that they were supplemented (or replaced?) by mixed quartz and organic ('grass') tempered fabrics at about the end of the 5th century or possibly a little later. It is impossible to say on present evidence whether the mixed-tempered fabric 2 and the solely organic-tempered fabric 3 were introduced at the same time, or whether there was a progression in ceramic technology in which the mixed fabrics were replaced by solely organic-tempered ones. It is perhaps more likely that fabrics 2 and 3 (and also 4?) were in contemporary use in the 6th century.

This proposed sequence is broadly comparable to that suggested for Beech House Dorchester, the assemblage nearest to Berinsfield which has been analyzed (Rowley and Brown 1981, 39–43). At Dorchester, grass-tempered wares were poorly represented overall and did not show the expected increase in later Saxon phases. The earliest Saxon deposits, however, were dominated by quartz gritted and sandy wares (a distinction being made between the two); small amounts of shell-tempered wares, which were absent at Berinsfield, were also present in the Dorchester assemblage. Apparent differences in the character of the Berinsfield and Dorchester assemblages may be explained by the small size of both, but the distinction between domestic and funerary contexts may also have been a factor.

The 1980 Pot (Fig. 22.1)

Ashmolean Museum
accession number 1980.303

Just over half of the pot survives, including a fairly large restored portion. Very dark brown to black fabric with organic inclusions. There are a few organic voids on the exterior surface and slightly more on the interior. The everted rim is rounded and slightly thickened. The body is globular and the base flat. External surfaces are smoothed rather than burnished, and have fairly complex but roughly-executed decoration consisting of a double row of small sub-circular impressions on the neck with two horizontal impressed lines above and below. Beneath this two more impressed lines are above a double row of elongated oval impressions set herringbone-wise, with a further horizontal line beneath. Below this are deep swags or hängende Bogen with impressed double lines and a central impressed vertical line or hairpin shape. The spaces between the double lines of the swags are filled in

one case with a simple ring stamp (cf. Briscoe A 1b i) also used in a horizontal row overlapping the top of the swags, and in another with small irregular lozenge-shaped impressions and little comma-like marks probably made with the tool used for the linear elements of the decoration. The character of the decoration is closest to that on a vessel from Lackford, Suffolk (Myres 1977, no. 950) which has the horizontal elements and the swags with the vertical central feature. There is, however, no use of stamps in the lower part of the scheme, as can be seen on a more elaborately stamped vessel from Newark, Notts (Myres 1977, no. 3543). In this case the lower stamps are within the inner of the two lines of the swag rather than between them. The 6th-century date proposed by Myres (1977, 58–59) is consistent with the date implied by the fabric of the vessel.

TEXTILE REMAINS

by Elisabeth Crowfoot
(Fibre identifications by John W Hedges)

The textile remains from this cemetery are all preserved on copper alloy objects, in most cases brooches from women's graves. Apart from three samples, the fibres had all been replaced by metal oxides, leaving a cast of the fabric; the pieces clearly preserved were often small.

Only one fragment of an edge is preserved, but in Anglo-Saxon fabrics, woven on the warp-weighted loom, the warp threads are normally more closely packed than the weft, and the higher counts have therefore been placed in the warp (first) position in the catalogue. The letters Z and S are used to indicate direction of spinning.

Spinning and fibres

The finds from Berinsfield are unusual in that the spinning identifiable in all the textiles is Z in both systems, with the possible exception of threads in grave 49, a feature more commonly found in later cemeteries. This may however be due to conditions of preservation, and lack of remains on iron goods; heavier fabrics, which are often twill cloak materials with yarns of mixed spinning, Z warp and S weft, have not survived at this site.

Samples from three weaves that seemed to be unreplaced were examined by John W Hedges; in two of these (graves 5, 73), both probably tabby weaves, the fibre was identified as animal(ie sheep's wool). The fibres of the third sample (grave 66), which seemed to be preserved, proved to be composed entirely of fine sand grains, a form of replacement noted once before at Sewerby, Yorkshire (Appleyard in Crowfoot 1985a, 54–55).

Weaving

The fabrics present include 13 twills, nine tabby (plain) weaves, and four tablet weaves, with possible remains of others.

The twills are all four-shed constructions, in most cases of good quality, nothing coarser than fabrics with counts of 10/9 and 10/10 threads 10 mm being preserved. It is possible that one twill (grave 107) may have had decoration; some threads near a broken edge are very thick, possibly plyed; another has part of a tablet-woven border (grave 104). Most of the fragments are too small to indicate if they are from simple 2/2 diagonal twills or have herringbone or diamond patterns, but in one case (grave 64, Fig. 23D) enough remains to show that here there must have been some type of broken-diamond or lozenge, a favourite weave in Scandinavian and Anglo-Saxon cemeteries (eg Crowfoot 1967, Fig. 7 [Coombe]; 1969, 51 [Orpington]; 1978, 103–105 [Bergh Apton]; 1983, 418–424 [Sutton Hoo] and 468–9 [Broomfield]; 1985a, 52–53 [Sewerby]; 1985b, 15–16 [Orsett]; Crowfoot and Henshall 1981, 97–100 [Fonaby]; Crowfoot and Jones 1984, 17–18, 20 [Spong Hill]; 1987a, 172–73 [Morning Thorpe]; 1987b, 195 [Buckland, Dover] etc).

The tabby weaves again are mostly medium to fine weight, of good even quality; the two identified as woven of yarns of animal fibre are both fine. In the case of three replaced tabbies (graves 29, 77, 102) the appearance, with uneven thread in one system, suggests that these were of flax. In grave 29 the mineralised tabby was preserved on the copper

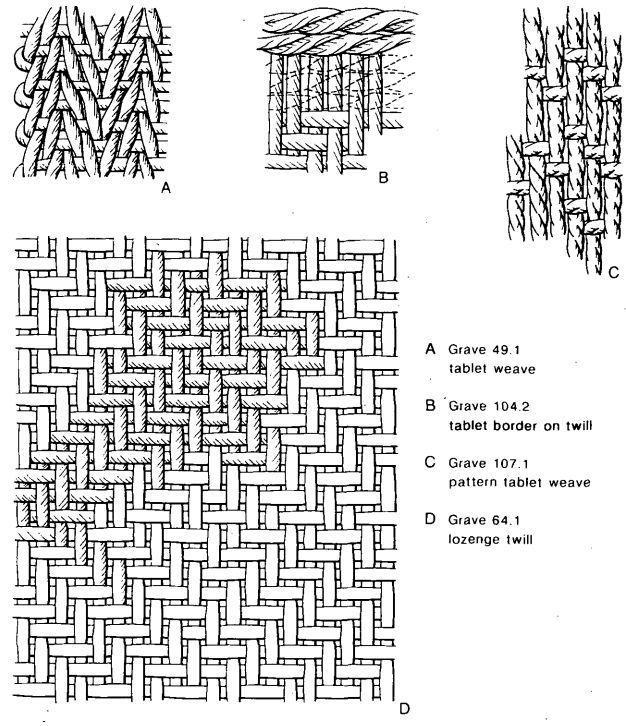

Figure 23 Textile diagrams: graves 49, 64, 104 and 107

Table 26 Details of textiles

Grave	Cat No.	Object	Position of textile	Measurement	Fibre	Spin	Weave	Thread count	Comments
5	1	Ae disc brooch	front & traces back; edge, pinhead	10 x 25	a) r b) r	Z/Z Z/Z	tabby ?twill	est. 20/16 (5 on 2.5)	yarns uneven coarser
	2	Ae disc brooch	front back near catch pinhead	8 x 5	a) r b) r c) r	Z Z/Z Z/Z	?tablet-weave tabby ?twill	8/7 on 5 mm	fine threads ? as on front of 1 lump
	4	Ae pin	whole length	-	a) a	Z/Z	tabby	9/9 on 5 mm	probably (a) on brooches
18	1	Ae brooch	back	23 x 14	r	Z/Z	2/2 twill	7-8/7 on 5 mm	simple diagonal
29	3	Ae strip from bucket	folded diagonally	22 x 13	r	Z/Z	tabby	14/10-12	?linen cloth covering bucket contents
35	1	Ae disc brooch	back, pin catch under pinhead	15 x 10 -	r r	Z/Z Z/S ply	2/2 twill threads	10-12/10-12 -	and lump on pinhead coarse, ?bead thread
42	1	saucer brooch	back, lump	-	r	Z ?ply	?tablet-weave	-	impression, parallel threads, vegetable debris
49	1	Ae disc brooch	back, pinhead pin catch	10 x 10 -	r r	Z/Z Z/Z	tablet-weave (2-hole) twill	twists 8 (10 mm) wefts 5 (5 mm) -	1 edge preserved, other missing width ? 12 mm (Fig. 23) scrap
	2	Ae disc brooch	front back, pin attachment	- -	r r	S Z, S	- -	- -	deteriorated textile threads
54	1	disc brooch	back: pinhead under pin detached	- - 10 x 10	r a) r b) r	Z Z/Z Z/Z	threads tablet-weave 4 & 2 hole 2/2 twill	- - 8/7 5 mm	deteriorated ?4 hole edge S, Z, 2 hole centre 4 small pices, diagonals same
	2	disc brooch	back, pin, pinhead under pin	- 10 x 7	?b) r a) r	Z/Z Z/Z	2/2 twill tablet-weave 2 hole	- twists 7 (7 mm) wefts 5 (5 mm)	deteriorated 2-hole twists S, Z 5 S
59	2	Ae disc brooch	back, pinhead	25 x 18	r	Z/Z	2/2 twill	*c* 6/5 on 5 mm	fine, surface skinned effect
60	2	Ae disc brooch	front: traces back:	- -	r r	- Z	- -	- -	traces mass of deteriorated fabric
63	2	Ae saucer brooch	back, pinhead	-	r r	Z/Z S ply	- thread	- -	fragment ? edge braid, worn coarse, bead thread ?
64	1	brooch and chain + beads-triangular plate small disc	front, arch back	6 x 6 17 x 13 - -	a) r b) r a) r ?b) r	Z/Z Z/Z Z/Z -	tabby broken diamond twill tabby ?twill	7/6 on 5 mm 6/6 on 5mm - -	fragments, appearance flax other scraps: diagonal fold a cross-plait effect (fig. 23.d) deteriorated & detached fragment
66	1	disc brooch (r)	back pinhead	-	a) r	Z, S ply	?tablet-weave	-	parallel threads, border or braid
	2	saucer brooch (l)	front inside saucer	4 x 2.5	soil r	Z/Z	tabby	4/4 on 2.5 mm	appearance suggests flax
73	1	saucer brooch (r)	back & pinhead	20 x 20	a) r	Z/Z	tablet-weave	-	edge 13 x 6, wefts protruding
	2	saucer brooch (l)	back under catch pin catch	6 x 4 -	b) a r	Z/Z Z, S ply	?tabby threads	- -	fine deteriorated

77	1	Ae saucer brooch (r)	back, pinhead ?round pinhead	- -	a) r r	Z/Z Z	2/2 twill threads	6/6 on 5 mm -	- multiple threads, ?beads
	2	Ae saucer brooch (l)	front, back pinhead	2.5 x 16 mm -	b) r r	Z/Z S	tabby threads	est.19-20/16 4 on 2.5 mm -	?flax, ?warp fine, even; ?weft coarser, uneven: weave regular coarse
	5	Fe plate (belt or pouch)	front, back	-	r	Z, S ply	threads	-	4 threads, sewing to belt?, and mass fine Z deteriorated
91	1	Ae small-long brooch (r)	back, pinhead and catch, lump	-	a) r	Z S ply	threads	-	parallel no wefts, ?fringe or tablet-weave unravelling
	2	pair to 1 (l)	front back, lump	5 x 5 -	b) r a) r	Z/Z Z S ply	?tabby ?twists	7/7 0n 5 mm -	- as on 1, fringe or twists
102	1	large square headed brooch	back scattered on cross end, both sides on pinhead over a) across part of cross	20x10, 20x35 10 x 10 -	a) r b) r c) r	Z/Z Z/Z Z, S ply	tabby 2/2 twill threads	22/15 10/9 -	in folds, flax, threads uneven in ?weft in folds ?fringe, similar threads protruding on pinhead
	2	Ae saucer brooch (r)	front, areas back, end of pin round head and pin	25 x 8? - -	?a) r ?b) r r	Z/Z Z/Z Z, S ply	tabby twill threads	10/10 5 mm - -	?flax tiny fragment ?bead string
	3	brooch pair to 2 (l)	front back, pin attachment	2.5 x 4 20 x 30	a) r b) r	Z/Z Z, S ply	tabby ?tablet-weave	est. 20/14 -	5/6 threads preserved mass, deteriorated, ?twist
104	1	small-long brooch with ?plaque	back under pin attachment	-	r	Z, S ply	?plait	-	cord, each thread 4-5 plyed threads, deteriorated textile
	2	square headed brooch	back, pinhead	14 x 15	r	Z/Z	2/2 twill: tablet border	6/6 on 5 mm: *c* 5 twists 7 mm	(Fig. 23.b) border, 2 twists preserved, ?3 gone, twill exposed
107	1	Ae square headed brooch (r)	front, tiny scraps back by catch on pinhead (pin through weave) catch underneath	- 15 x 3.5 10 x 5 15 x 8	a) r b) r c) r a) r b) r	Z/Z Z/Z Z S ply/ Z S ply Z/Z Z/Z	?twill twill ?tablet-weave, patterned twill twill	4 on 4 mm est. *c* 19/12 ?warps 9 5 mm ?wefts 12 10 mm - 9/7 on 5 mm	coarse yarns fine, with some very thick or plyed threads at edge. ?decoration (Fig. 23.c) ?width 25-30 mm, traces (as on front) coarse fine, under (a)
	2	Ae saucer brooch (l)	back pin head & round pin	6 mm	c) r	Z S ply	tablet-weave	-	edge, twists Z, S, Z
107	5	Ae plate ?pendant	lying across in holes	-	r ?b) r	Z S ply Z/Z	thread ?twill	- -	thread fastening 2 holes tiny fragment on plate
128	3	Ae buckle	underside	40 x 25	r	Z/Z	tabby	12/12	2 or more layers or folds. Leather from belt or strap between plates
150	1	Ae disc brooch (r)	back, lump pierced by pin	-	r	Z	-	-	not clear
	2	Ae disc brooch (l)	back, lump	10 x 10	r	Z/Z	2/2 twill: herringbone or broken diamond	6/5-6 on 5 mm	reverse of diagonals, deteriorated

Key: measurements in mm except where otherwise stated, thread counts in 10 mm. a), b), c) indicate different textiles on same object(s) from grave. In the Fibres column r = replaced, a = animal

alloy binding of a bucket, and in other cemeteries the remains of linen fabrics in this position, a few twill but the majority tabby-woven, are taken to indicate a cloth fastened over the mouth of the vessel to protect the contents, perhaps milk or ale (Crowfoot 1969, 37–8; 1976, 68, 71 [Banstead Down]; 1978, 100 [Bergh Apton]; 1985c, 102 [Portway Down, Andover]; 1987a, 178 grave 200 [Morning Thorpe]; 1987b, 194 [Buckland, Dover] etc).

Tablet weave is a favourite form of decoration in Scandinavian and Anglo-Saxon textiles, made both during weaving as borders on the large areas of cloth intended for cloaks, tunics and gowns and in separately woven braids used for belts and straps or sewn to decorate the neck and wrists of garments (Crowfoot G M 1951, 26–30; 1952, 189–191). The warps are threaded through the holes at the corners of a number of flat tablets (or 'cards'), often of wood, bone or hide, which can be turned forward or backward to open a shed for the passage of the weft. A small copper alloy plate from grave 107 (now in the Ashmolean Museum) has been described as a weaving tablet but its size and its material make this improbable (Collingwood 1982, 24). A wide range of patterns can be made by the use of different colours in the warps, and by manipulating the surface of the weave. The Berinsfield examples are very fragmentary, but include both an edging and braids. Two cords of a border remain on a scrap of twill (grave 104, Fig. 23B) but the edge loops are missing, and it is impossible to suggest which border it came from as the weave has an even count. All three types of edges are represented in English finds — starting borders (Henshall 1959, 18–19 [Blewburton Hill]; Crowfoot 1987a, 172–3) end borders (Crowfoot 1967, 37, 38; 1983, 468–70; Crowfoot and Jones 1984, 172–3) and side borders (Crowfoot 1958, 36–37, Finglesham).

The best-preserved remains on brooches from graves 42, 49, 54 and 107, suggest braids used to decorate the neckline of the women's gowns. The rather coarse band in grave 49 was probably made in a weave in which only two holes of the tablet are threaded, producing a more open fabric in which the wefts can be seen; it is possible that this was a narrow braid of which only one outer twist is missing (Fig. 23A). A finer scrap in grave 54 is woven in a similar technique. Examples of this weave, first identified in Norway (Dedekam 1924–25, 42–45, Figs 21, 22), have been found in England at Wakerley and Buckland, Dover (Crowfoot A M Lab. 44/88; 1987b, grave 27). The fragment in Grave 107 (Fig. 23C) is more confused. It is possible that it is similar to the highly decorated braids found in graves of the Migration period in Norway and Sweden, analysed by Dr Margareta Nockert. In these examples the tablet warps of the centre area are stationary, decorated with weft pattern wrapping (Nockert 1991, 83-89; Hougen 1935. Pls xvi, xvii). Fragments of such decoration have been identified from Snape, Suffolk (Crowfoot in Filmer-Sankey, forthcoming), West Heslerton and Norton-on-Tees (Walton Rogers, forthcoming).

THE HUMAN BONES

by Mary Harman

The condition of the bones varied considerably according to localised differences in the subsoil, some having badly eroded surfaces and much of the cancellous bone decayed away, while others were in an excellent state of preservation. Many of the bones, especially the ribs and long bones, were broken, and most of the skulls were fragmentary.

Each skeleton was examined: the sex of adults was decided where possible from the relevant features of the skull and pelvic girdle and the general appearance and robustness of the bones; the age was estimated from the degree of epiphyseal fusion and the state of tooth eruption and wear, using the criteria given by Brothwell (1972). For children the length of the diaphyses was also used to estimate age, based on the chart prepared by Miss R Powers (Powers n.d.). Individuals with heavily worn teeth or edentulous jaws could not be aged very accurately but have been noted as over 45 years; some of them may be 10 to 20 years older, or more. The height of adult individuals was calculated from long bone lengths using the regression formulae of Trotter and Gleser (1958). Occasionally height has been calculated where the sex of the skeleton was not obvious from its physical features but was inferred from the grave goods.

Conclusions

One hundred and fourteen individuals are represented by whole or partial skeletons from the cemetery. This is not a large sample and any conclusions made concerning the nature of the population must be treated with extreme caution.

In the 35 cases (41 including probable identifications) where it was possible to check the sexing of the skeletons from physical characteristics by the type of goods buried with them, only one was contradictory; this was grave 104, which was decided, with reservations and on the basis of the skull only, to be a male skeleton, but which had female grave goods.

Table 27 shows the numbers of deaths distributed according to age and sex. Nearly a third of the people represented were children under the age of 15, and there was evidently a very high juvenile mortality rate, probably higher than is immediately obvious, as of the 13 children dying by the age of five years, only one was newly born (grave 38), and it seems highly probable that some very young infants were buried elsewhere, possibly at the settlement. At least one in ten persons, therefore, died by the age of five years, and this could indicate an increased susceptibility to disease

Table 27 Distribution of deaths according to age and sex

Sex	Age in years											Total
	0 – 5	5 – 10	10 – 15	15 – 20	20 – 25	25 – 30	30 – 35	35 – 40	40 – 45	45 +	45 + +	adult	
male				2	3	3	8	3	3	1	3	4	30
female			1	4	6	2	2	3		3	2	9	32
unsexed	13	13	7	2	3							8	46
Total	13	13	8	8	12	5	10	6	3	4	5	21	108

Insufficient details from six graves: 26/2, 30/2, 120, 126, 134/2 and 151

Table 28 Incidence of caries, abscess and ante-mortem tooth loss in numbers of teeth and tooth sockets seen, divided according to age

Age groups (in years)	Caries		Abscess		Loss	
20 – 30	5/410	1.2%	1/476	0.2%	0/514	0%
30 – 40	14/368	1.8%	7/398	1.8%	8/414	1.9%
over 40	13/208	6.2%	25/255	9.8%	23/276	8.3%

at weaning. A second point to be noted from Table 27 is that adult female deaths below the age of 30 are considerably greater than those of the males in the same age group, and that among the adults, more females died before the age of 30 than after, while more than twice the number of men survived beyond that age as died before it. This discrepancy may be partially due to deaths associated with childbirth.

The average height of 17 adult women was 1.62 m (5 ft 3¾ in) and of 24 adult men was 1.73 m (5 ft 8 in).

Table 28 shows the incidence of caries, abscess and ante-mortem tooth loss in different age groups: it is clear from this that while dental health deteriorated with increasing age, it was remarkably good compared with modern British populations, and severe tooth loss occurred only in two ageing females in graves 106 and 134. The unusually high number of caries in the teeth of skeleton 108, a young person, is probably connected with the defective enamel on the occlusal surfaces of the molars. Hypoplasia in the teeth of skeleton 5 suggests an illness or a dietary deficiency at the age of about six years. Both skeletons 101 and 34 show unequal wear on different sides of the jaws, and while in inhumation 101 there is no obvious reason for this, in inhumation 34 it is probably related to the pain associated with a large carious cavity on the less severely worn side.

Eight people, five men and three women, of 41 adults or adolescents in whom both jaws were present had one or more third molars congenitally absent: a further two from whom only the mandible survived had both lower molars absent. One man (grave 37) had a supernumerary tooth between the first two upper incisors; an adolescent had retained the final milk molar between the upper right premolars and molars.

Non-metric variables occurred in a number of individuals (see Fig. 31): three people had an open metopic suture; 13 had lambdoid wormian bones, three of these also having a wormian bone in the sagittal suture, a more unusual site. Spina bifida occulta was seen in the first cervical vertebra of skeleton 4 and in the sacrum of skeleton 110.

Few individuals show any evidence of injury: five men may have had fractures: grave 32, an elderly man, seems to have had a fractured nasal bone; skeletons 24, 110 and 133 had healed fractures of the clavicle, all on the left side, and skeleton 161 may have had a healed fracture of the left tibia shaft. Skeleton 18, a young woman, had an ossified haematoma, probably the result of trauma.

Degeneration of articular surfaces, sometimes associated with osteo-arthritis was seen in a number of adults: one man of less than 30 years (grave 6) had very slight evidence on two lumbar vertebrae; three men of between 30 and 35 were mildly affected, though one, skeleton 141/1, had two lumbar vertebrae joined on one side; only one person of over 35 years, a woman, showed no evidence of spinal degeneration, though many of those who were affected show only slight signs. Skeletons 32 and 141/1, both men, had some vertebrae joined in the lower part of the back. Men appear to have been affected by back trouble earlier than women, and more severely in later life; this may be related to heavier work.

Osteo-arthritis occurred in other joints: in the left articulation of the jaw of skeleton 77; the shoulders of skeleton 106; the elbows of skeletons 28 and 148; the wrists of skeletons 3, 32 and 148, and in the hip joints of skeletons 28, 30 and 164 who was also

affected in the ankles. Skeleton 110 showed some signs on all joint surfaces. Again men were more frequently the sufferers.

The only other evidence of disease was seen in skeleton 10, an adult woman whose back was permanently bent at a right angle, possibly the result of healed tuberculosis.

The Anglo-Saxon cemetery at Abingdon, with a similar number of skeletons recovered, provides a useful comparison with Berinsfield. Table 29 shows the numbers of deaths distributed according to age and sex. Child mortality is very similar to that occurring at Berinsfield, including a preponderance of deaths in very young children between the ages of one and two years (11 of the 14 deaths at less than five years), and a paucity of very young infants. There is a considerable difference between the total numbers of adult men and women, and while more women died before 30 years than after, as at Berinsfield, this is also true of the men, adult male deaths having a different pattern at Abingdon.

Average height is almost identical at both sites: at Abingdon seventeen women had an average height of 1.61 m (5 ft 3½ in) and the average height of 29 men was 1.73 m (5 ft 8 in).

A comparison of tables 28 and 30 will demonstrate that dental health at Abingdon was consistently worse than at Berinsfield. There is no obvious explanation for this and although the numbers of people involved are small, it seems unlikely that this could account for the difference.

Further comparison of both Berinsfield and Abingdon with late Romano-British cemeteries in the Oxford area (Harman, Molleson and Price 1981) shows that adult life expectancy was better in the earlier period: deaths of both males and females before the age of 30 were considerably less than half the total number of adults of each sex, and well over a quarter of the adult population could expect to survive beyond the age of 45, while in the later period, though the number of females surviving beyond forty-five approaches the same proportion, no more than one in eight adult men could expect to live so long.

Child mortality cannot be compared on the basis of such a small sample, which is further complicated in the earlier period by the varying attitudes to child burials in the different cemeteries.

Average adult height in Romano-British cemeteries was not very different: 1.59 m (5 ft 2½ in) for women and 1.69 m (5 ft 6¾ in) for men, so on the limited basis of the cemeteries excavated, people in the later period were slightly taller.

THE CREMATIONS

by Angela Boyle

A total of five cremated deposits were recovered. Four of these were Anglo-Saxon (31, 90, 111, 165) and the fifth derived from a prehistoric context (97) in association with a Deverel-Rimbury urn that is discussed in detail elsewhere (Barclay and Thomas, this volume).

Each of the Anglo-Saxon cremations was associated with the fragmentary remains of Anglo-Saxon pottery vessels. Cremation 165 is of particular interest because of its relationship with grave 122. The cremation consisted of six sherds of pottery in association with six fragments of calcined bone found during the removal of the grave fill. Although it is not possible to establish with certainty, due to the limited character of the contextual information, it seems likely that the cremation represents the remains of an earlier burial disturbed during the digging and back-filling of grave 122, rather than being a later insertion into the grave fill. Cremation 111 was located within a four-post structure (see Chapter 5) of a type which has many parallels at sites such as Lechlade, Glos. (Boyle *et al.*), Alton, Hants. (Evison 1988) and Appledown, W Sussex (Down and Welch 1990).

The cremations were originally examined by Mary Harman who provided a brief catalogue of

Table 29 Distribution of deaths at Abingdon according to age and sex

Sex	Age in years											Total
	0 – 5	5 – 10	10 – 15	15 – 20	20 – 25	25 – 30	30 – 35	35 – 40	40 – 45	45+/45++	adult	
male				5	11	7	6	5	4	2	4	44
female			2	5	10	3	2	1	1	7	3	34
unsexed	14	15	3							1	3	36
Total	14	15	5	10	21	10	8	6	5	10	10	114

Table 30 Abingdon: incidence of caries, abcess and loss in numbers of teeth and tooth sockets seen, divided according to age groups

Age groups (in years)	Caries		Abscess		Loss	
20 – 30	19/691	2.7%	5/762	0.7%	1/766	0.1%
30 – 40	18/296	6.1%	20/338	5.9%	17/345	4.9%
over 40	36/305	11.8%	51/371	13.7%	63/430	14.7%

her results. These appear in chapter 3 at the end of the grave catalogue, although no data on the bone from cremations 90 and 165 could be traced. In order to provide a discussion of the results an attempt was made to locate the deposits for re-examination, however it was only possible to find cremation 111.

The weights of the deposits indicate that all were incomplete. They may originally have represented only a token offering of the deceased or it is possible, given the removal of topsoil and extensive scraping which had occurred over much of the site, that the cremations had been severely damaged by modern activity.

It is not possible on the basis of the information to determine what methods of age and sex assessment were used or if indeed the latter was attempted. It is noted that open sutures were recorded on skull fragments of cremation 111 suggesting that this individual was a young adult. The cremations comprised two adults, an infant of less than five years and two adults that were indeterminate. It does not appear to have been possible to sex any of the deposits.

No information on colour seems to have been recorded originally. A re-examination of cremation 111 showed that although most fragments were white and therefore well calcined, a small percentage were bluish-white and less well burnt. These tended to be smaller bones such as the phalanges. McKinley (1989) notes that in a modern context metatarsals are often seen to be grey or blue although they stop burning sooner than many others. She suggests that this may be due to the lack of combustible soft tissue. This is more likely to account for the colour of the phalanges in cremation 111 than inefficiency of burning. The larger long bone fragments of cremation 111 were warped and exhibited much transverse fracturing while spongy bone such as the proximal ends of long bones were more inclined to shrink. This too has been recorded in a modern context. The degree of alteration in the form of the bone may be an indication of the speed and completeness of dehydration which may in turn relate to height of temperature and perhaps de-fleshing of bone prior to combustion (McKinley 1989).

THE BONE AND SHELL REMAINS

by Bob Wilson

Introduction

The majority of the animal bones were found in the Romano-British features, and as the excavation

Table 31 Bone and shell fragment frequency

Species	Pit 116	Roman ditches	Roman well F9	Roman pits	Saxon graves	Totals
Cattle	1	58	10	7	9	85
Sheep		13	3	11*	14*	41**
Horse		18	5		4	27
Pig		1	1		1	3
Red Deer	2+A		1+4A			3+5A
Roe Deer	1+A					1+A
Domestic Fowl		2				2
Dog		4				4
Fox					1***	1***
Water Vole					1********	1********
Short-tailed Vole					*	*
Wood/Field mouse					*	*
Frog					*	*
Oyster		1			1	2
Mussel				1		1

A = Antler fragment

* = additional part skeleton

Total = 168 + 6A + 3 shells

strategy was primarily designed to investigate the Saxon cemetery, the animal bone sample is neither large nor particularly coherent. Three hundred and seventy six bones and shell fragments were found of which 47% were identified.

The animal bones located in Saxon graves were fragmentary and scattered in the grave fill, and are thought to be residual from the Romano-British period. There were no articulated limbs or joints to suggest offerings to the dead, except possibly the sheep skeletons discussed below. All the animal bone is likely to be of Roman date except that from the pit 116 and the foxes and water voles in graves 50 and 141. The results of the bone analysis are summarised in Table 31.

Wild animals

One fox skeleton was found in grave 50 and two more in grave 141. The foxes in the latter grave were accompanied by a bone spread of at least eight water voles (*Arvicola terrestris*), one short-tailed vole (*Microtus agrestris*), one wood/field mouse (*Apodemus sp.*), a frog, and other unidentified small bone fragments. *Arvicola terrestris* also occurred in grave 26.

Foxes

In addition to the three part-skeletons of foxes in graves 50 and 141, a tibia fragment in grave 26 is probably that of a fox rather than a dog. The skeletons seem to be from complete individuals and have fresh breaks but no butchery marks. All epiphyses are fully fused, all teeth erupted, and in one animal from grave 141 the enamel is worn away in places. No pathology is obvious.

Skull measurements (mm):

F141/4 — I 141, II 82, IX 69 est., X 39 (Harcourt, 1974) Interorbital 29.5, post-interorbital 24.

F50 — II 78 est., post-interorbital 22 (Corbet, 1975). Mandible length (excluding incisors) 105 est.–108 est., mean 106 (n=3); mandible M1 length 14.0–15.0, mean 14.7 (n=6), maxilla M1 length 13.9-14.2, mean 140 (n=5).

Long bone lengths:

F141/3 — hu. 128, ra. 113 est., fe. 133, 132, ti. 138 mm.

F141/4 — fe. 122 mm.

F50 — hu. 122, ra. 111, fe. 129, ti. 136 mm. It is possible that due to the small variations in the long bone lengths of the two specimens in grave 141 the bones may not have been correctly assigned to each individual.

The cranial dimensions of these foxes are small compared to measurements given by Burrows (1968) and Corbet (1975), and it is possible that the skeletons are of females, (vixens weighing less than dog foxes, Burrows 1968) although the pelves could not be sexed.

Domestic animals

Besides the fragment number results in Table 31, age and sex data and bone measurements were taken:

(a) the numbers of fused to unfused epiphyses

Cattle	23:5
Sheep	4:4
Horse	13:0
Pig	1:0

(b) mandibles with M3 in wear; M3 not in wear;

Cattle	2:10
Sheep	2:1
Pig	0:1

(c) Bone measurements (mm) Total lengths:

Cattle	ra. 270, ti. 326, astrag. 67, 68, mt. 211 (dw. 48 msw 25.5) 219 (dw. 62 msw. 30.5),- (dw. 66)
Horse	ra. 343, ca. 106, mt. 256 (msd; 29)
Red Deer	mt. 303 est.
Roe Deer	hu. (dw. 29)

Both deer bones were from pit 116.

Sex determination

One metatarsal each of cow and bull, a mare pelvis, and a ewe sheep pelvis.

Ewe/Wether sheep skeleton in Roman pit 38

In a shallow pit or ditch extension a moderately complete skeleton lay on its side, with its feet toward an infant burial slightly to the S of it. The early-fusing epiphyses including two second phalanges are fused, while five first phalanges are not. In the mandibles the first incisor is unerupted, p2–M1 are erupted and in moderate wear. Unfortunately the M2's of the mandibles are missing but the M2 in one maxilla is unerupted, probably in the visible in-crypt stage. If there were horns none survive but the pelves indicate a castrate or female. Total lengths of the immature bones are: hu. 123, ra. 132, 133, mc. 116, both fe. 151, both ti. 178, l. mt. 124 and r. ca. 52 mm. Both astragali are 28 mm in length and the distal widths of the humeri are 28 mm. There are no butchery marks.

Epiphysial fusion data suggests an age of 13–16 months or, if evidence of early epiphysial fusion is used, 8–10 months (Silver 1969). On Payne's method (1973) of ageing Turkish sheep, the mandibles are about stage C, ie 6–12 months of age. In accordance with Grant's method (1975) they are about Mandible Wear Stage 13. Modern and 18th-century eruption data suggest ages of 3–12 and 6–18 months respectively. Since M1 is in wear the sheep should be at least 3–5 months old (Silver 1969), and probably one or two more, ie between 7/9–12 months (modern) or 10/12–18 months (18th-century data). Carter's ageing method from tooth-wear (1975) gives an age of 13–14 months (only exposed teeth measured; M1 28, 29 mm). Clearly there are some discrepancies in the age information and in some methods of ageing individual sheep bones.

Undated sheep skeletons

One burial occurred adjacent to the foot of grave 129. Most of the anterior skeleton was lost by machine clearance of the topsoil. The pelves indicate a ewe. All ageable epiphyses are well fused.

Limb bone lengths (mm): i fe. 167, 168 est., r. ti. 201, r. mt. 133, astrag. 27. Distal widths (mm): hu. 30, 31, ti. 26, mt. 24.

This appears to have been a fully grown ewe with a withers height around 0.60 m. There are no signs of butchery.

The remains of a wether sheep, *c* 0.59 m at the withers, not quite fully grown and apparently unmarked by butchery, also occurred during the stripping of the northern extension of the site.

Discussion

It is doubtful that the foxes in grave 141 were deliberately buried with the human bodies, which were disturbed (Fig. 25), and simpler to argue that the animal debris suggests a considerable post-burial intrusion of the grave by burrowing animals (eg *Arvicola, Apodemus*) and/or subsidence of the backfilling. Non-burrowing animals like frogs, could have crept or fallen in subsequently. It is doubtful that the smaller animals formed part of the foxes' diet for the *Arvicola* mandibles and other elements are mainly complete or newly broken. These bones were not compacted and cemented in a similar way to dog coprolites which are occasionally preserved on gravel sites.

Feature 50 is an odd-shaped feature or grave of jumbled human bones; and perhaps the fox or foxes there were responsible for their collection.

The evidence suggests that such wild species found shelter because the cemetery was socially if not physically remote from Saxon settlement. The graves, probably became overgrown by grass or scrub before the land was returned to other uses. Thus the presence of three fox skeletons and other bones need not indicate any unnatural mortality and generations of foxes may have hunted and scavenged from their graveyard 'earths'.

The three sheep skeletons appear best explained as burials of sheep which died as a result of disease or other unintended fatality. This especially applies to the skeleton in pit 38 which may be related to folding areas defined by the small rectangular Romano-British enclosures uncovered during the excavations and detected by aerial photography (Figs 5 and 6).

Alternately the sheep in pit 38 could have been buried deliberately with the human infant nearby. Similarly another sheep could be linked to the adult in grave 129. However these two burial associations could be of different cultural periods and any argument for consistent interment of animals with humans is difficult to sustain here.

In general, from the bone assemblage it is possible to state that the landscape appears to have been open, pastoral with a predominance of cattle and sheep, and presumably some arable.

ENDNOTE

1 My earlier suggestion that grave 110 is a case of a weapon deposit in the grave of a disabled person (Härke 1990, 36) was based on a mistaken reading of the draft anthropological report. The *spina bifida* of the man in this grave is, however, *spina bifida occulta* which need not cause permanent disability and may, in fact, allow the afflicted individual to lead a reasonably active life.