TWO ANGLO-SAXON CEMETERIES AT BECKFORD, HEREFORD AND WORCESTER

Vera I Evison and Prue Hill
Two Anglo-Saxon Cemeteries at Beckford, Hereford and Worcester
Two Anglo-Saxon Cemeteries at

Peckforton, Frodsham and Worsley-

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Two Anglo-Saxon Cemeteries at Beckford, Hereford and Worcester

by Vera I Evison and Prue Hill

with contributions from Valerie Cooper, Elisabeth Crowfoot, Glynis Edwards, M Heyworth, Jacqui Watson and the late Calvin Wells

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Summary

In April 1954, gravel-digging operations near the Carrant Brook at Beckford, on property belonging to the Overbury Estate disturbed human bones, and two saucer brooches screened out in the gravel plant established that this was an Anglo-Saxon cemetery. Excavation of 24 graves took place between April and June 1954, on behalf of the Inspectorate of Ancient Monuments. This is now called Beckford cemetery A.

During August 1958, another cemetery, Beckford B, was discovered about 600 yards away, containing 106 inhumations and 4 cremations.

Aerial photography and excavation has shown that the area was inhabited in the Bronze Age and Iron Age, and Roman remains have been found nearby, but on neither of the two sites was there any trace of features other than the Anglo-Saxon burials, nor was there residual material, even sherds, of any period. The spacing of the graves, however, suggests that earlier tumuli were visible at the time and attracted the Anglo-Saxons to the sites.

The grave goods indicate that both cemeteries were in use from the late 5th to mid 6th century. In both spears and shields appeared in most male graves, as well as one great square-headed brooch and other brooches and beads in female graves. The absence of swords and gold and silver shows a lack of affluence, and, although there is a range of brooches, they are mostly of fairly local origin. The graves in cemetery A were slightly richer than those in B.

The skeletons in cemetery A were better preserved than those in cemetery B, and some showed traces of spina bifida and leprosy. The number of deaths before the age of 18 was slightly higher than elsewhere. The evidence reflects an isolated, inbred community at Beckford with little contact with other Anglo-Saxon communities or the Continent. Its connections were almost exclusively with the West Saxons of the upper Thames Valley and there are only a few traces of Anglian influence.

Zusammenfassung


Luftaufnahmen und Ausgrabungen beweisen, daß diese Gegend in der Bronze – und Eisenzeit besiedelt war; in der Nähe wurden auch römische Überreste gefunden, aber auf keinen der Gelände war eine einzige Spur von anderen Merkmalen außer der der angelsächsischen Beisetzungen, gefunden worden. Es wurden auch keine restlichen Materialien aus anderen Perioden entdeckt, nicht einmal Scherben. Man vermutet jedoch, daß die Abstände zwischen früheren Tunulusgräbern zu dieser Zeit sichtbar waren und sie die Angelsachen zu diesen Geländen anzogen.


En avril 1954, une exploitation de dépôts de gravier près du Carrant Brook, à Beckford, sur une propriété appartenant au domaine de Overbury, dérangea des ossements humains et deux broches en forme de soucoupe, découvertes durant le triage du gravier, établirent qu'il s'agissait d'un cimetière anglo-saxon. Des fouilles de 24 sépultures eurent lieu entre avril et juin 1954, pour le compte de l'Inspecteurat des Anciens Monuments. Ce site s'appelle actuellement le cimetière de Beckford A. Pendant le mois d'août 1958, un autre cimetière fut découvert, Beckford B, qui contenait 106 sépultures et 4 crémations.

La photographie aérienne et les fouilles ont indiqué que le secteur était habité durant l'âge de bronze et l'âge de fer, et des restes romains ont été découverts à proximité, mais il n'y avait aucune trace de particularités autres que les sépultures anglo-saxonnes sur les deux sites et il n'y avait pas de matériel résiduel, même des tessons, de quelque période que ce soit. L'espacement des sépultures suggère que des tumulus plus anciens étaient visibles à l'époque et avaient attiré les anglo-saxons aux sites.

Le matériel funéraire indique que les deux cimetières furent utilisés entre la fin du 5ème siècle et le milieu du 6ème siècle. Dans les deux cimetières, on trouva des lances et des boucliers dans la plupart des sépultures masculines ainsi qu'une grande broche à tête carrée, d'autres broches et des perles dans les sépultures de femmes. Le fait qu'il n'y avait ni épées, ni or ou argent, indique un manque d'affluence et bien qu'il y ait un assortiment de broches, elles sont, pour la plupart, d'origine relativement locale. Les sépultures du cimetière A étaient un peu plus riches que celles du cimetière B.

Les squelettes du cimetière A étaient mieux préservés que ceux du cimetière B et il y a avait des traces de spina-bifida et de lépre sur certains. Le nombre de décès avant l'âge de 18 ans était légèrement plus élevé qu'ailleurs. Les indices reflètent l'isolement de la communauté de Beckford, son degré élevé de consanguinité et son manque de contact avec d'autres communautés anglo-saxonnes du continent européen. Ses rapports étaient presque exclusivement avec les Saxons occidentaux ou la haute Tamise et il n'y avait que quelques traces d'influence anglaisse.

Acknowledgements

A few of the many people who helped to bring this report to completion may be mentioned here and my thanks expressed to them. I am particularly grateful to Valerie Cooper whose tireless work in sorting out the post-excavation confusion of objects and numbers resulted in the re-establishment of correct order. Valerie Cooper also contributed the bead catalogue and tables as well as the bibliography, and typed a good deal of the manuscript.

Many people in the Inspectorate of Ancient Monuments did much to further the project, beginning, at the time of the excavation, with the late Dr G C Dunning. Others in the administration I would like to thank are Sarnia Butcher, John Hurst, Elizabeth Nichols, in the Drawing Office Dawn Flower, Frank Gardiner, Kate Morton, Jim Thorn, and in the Laboratory, Glynis Edwards, Jacqui Watson. Conservation was carried out by the City Museums and Art Gallery, Birmingham. Drawings of objects were mainly by Louisa Hayhow and some by Frank Gardiner and Jim Thorn.

The photographs Plates IIb–d, f, g, IIIa–c, g, IVa, c, e, Vb–g were provided by the City Museums and Art Gallery, Birmingham, Plates IIa, e, IIIId–f, IVb, d, f, Va, h by English Heritage, and Plate VI by Hallam Ashley, New Costessey, Norwich.
1 Excavation, Beckford Cemeteries A and B

In April 1954 gravel-digging operations near the Carrant Brook at Beckford on property of the Overbury Estate disturbed human bones, and two saucer brooches screened out in the gravel plant established that this was an Anglo-Saxon cemetery. The site is in Conderton parish (964355, Fig 1), but is nearer to the village of Beckford than to Conderton. Beckford, once in the county of Gloucestershire was transferred to Worcestershire in 1931, and is now in Hereford and Worcester. Investigations were first made by members of the Vale of Evesham Historical Society, and four graves were identified, which are recorded below as graves A25–28. Excavation by Vera Evison on behalf of the Inspectorate of Ancient Monuments then took place between April and June 1954, during which time twenty-four graves were excavated. This is now called Beckford cemetery A (Figs 1 and 2).

During August 1958, in a field 600 yards to the east (969355), another cemetery, Beckford B, also in Conderton parish, was discovered in gravel digging, and this excavation was started by Prue Hill, who was then a student at Birkbeck College, and graves 1–63 and cremations 1 and 2 were excavated. The excavation of graves 64 to 83 and cremation 3 was undertaken by Vera Evison during September and October 1958, and finally, graves 84 to 106 and cremation 4 were excavated by Prue Hill by January 1959. Among people who assisted in the excavations for short periods were Jean Cook, John Dodsworth, Guy Knocker and Randolph Quirk. In the hostile conditions of a rescue excavation it was necessary to complete work on each grave by the end of the day on which it was opened. Full excavation of the remaining parts of the cemeteries was made possible by the generous cooperation of Thurston Holland-Martin of the Overbury Estate and E H Dawkins of the Gloucestershire Sand and Gravel Company. Conservation and drawing of the objects took place many years later in the 1980s.

In the long period of post-excavation work many of the objects became separated from their correct numbers, and reinstatement in their correct graves was only made possible by the sketches, descriptions, photographs and other records made on the day of excavation and subsequent assiduous detective work by Valerie Cooper. Some objects also were lost in this post-excavation period; in these cases illustration can only be by the records available, ie index-card sketches made on the site and photographs taken of the untreated material when it was first submitted to the laboratory of the Inspectorate of Ancient Monuments. However, only a few iron fragments remain unidentifiable and uncatalogued.

Imperial measurements were used at the time of the excavations, but in the present report metric equivalents are added. The measurements of the objects given in the catalogue are metric only. The manuscript was completed by August 1990, and no account could be taken of publications which appeared after that date.

At the time of excavation some of the hedgerows, including that along the parish boundary nearby to the west of cemetery A, had been demolished in favour of larger fields of more regular shape, and some topsoil stripping had taken place prior to the winning of sand and gravel. Aerial photography and excavation has shown that the area was inhabited in the Bronze Age and Iron Age, and Roman remains up to the 4th century have been found not far away (Webster and Hobley 1964, Fig 3; Dinn and Evans 1990, Fig 3). It is therefore surprising that on neither of the two sites was there any trace of features other than the Anglo-Saxon burials, nor was there residual material, even sherds, of any period.

Inhumation graves

In the conditions of these rescue excavations the outline of the inhumation graves was not often visible in the sand and gravel, and the outline as far as was traceable is shown on the grave plans (Figs 41–52). Whenever the outline was visible it may be noted that the grave was usually only just large enough to contain the body, with no wide, empty spaces. For the purpose of the cemetery plans therefore, outlines of this size are provided for graves where the actual outline was undetectable (Figs 2 and 3). Most of the visible outlines were parallel-sided with ends rounded or straight with rounded corners.

Grave A1 was longer than necessary, with a space at the head, but apart from this there were no especially large graves. The possibility of two layers of deposition was noted in grave A14 (Fig 42), which contained a male with two spears and a shield boss, and was 107 cm deep. Above the skeleton, at a depth of 76 cm, were several large stones reddened by fire and parts of an animal jaw and skull. The tips of the two spears were visible at this level. The positioning of this assemblage above the knees of the skeleton suggests some connection with the grave, perhaps denoting a ritual or funeral feast. It is, of course, possibly coincidental, but this is not so likely as there were no other archaeological traces in the area which were not part of the Anglo-Saxon cemetery.

Most of the graves were single and quite separate from the other, so that there must have been quite clear grave markings on the surface. Among the
Figure 1  Site location of Beckford cemeteries A and B
Table 3 Shield characteristics

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Fig 36. The flange of A6/1a showed that it had only four rivets, and the two pairs of disc-headed rivets A6/1c were connected at the back by an iron strip. Four iron buckles were found in a position which suggested that they were attached to the shields for suspension, A2/3, A13/3, A14/5 and A22/4 (Figs 8, 13, 13, 15), although the last might equally well have been connected with the knife. In cemetery B thirteen shield bosses were found in the graves and two were unassociated. Eight of them were of a low variety (B5/2a, B7/2a, B20/3, B35/1a, B47/1a, B64/1a, B92/1a, B94/1a, Figs 18, 19, 22, 24, 27, 30, 36, 37).

Some of the bosses were fastened to the shield by five rivets, B5/2a, B35/1a, and B92/1a, and others by four rivets, B7/2a, B47/2a (bronze) and B94/1a. Six had a button top and one, B20/3, (Fig 22) had a spike. There were five strap grips, but one was the only example of a semi-cylindrical grip B7/2b (Fig 19), which is more common amongst early grips elsewhere (Evison 1963, 39). As in cemetery A, most of
The shield boards were decorated with two to four rivets. A buckle, B94/3, was found under one of the bosses, and presumably belonged to the shield as the boss was at mid chest.

Five of the graves contained a tall variety of boss, B27/1a, B32/1a, B51/3a, B77/2a and B95/1a (Figs 22, 23, 28, 34, 37), and there were also two unassociated, B Unass 3 and B Unass 5 (Fig 40). Five of these had a button top and two a spike top, the dome was concave, the waist tall and some had a carination. Only B27/1a was fastened to the board by five bronze rivets, the rest by four iron rivets. This tall type of boss occurred in plots I, II and V only. Two to four iron disc-headed rivets appeared on shields with both low and tall bosses. They were more often joined by a strip on a shield with a tall boss, ie A6/1 and B32/1, (Figs 9 and 23) while an S-shaped strip was used with B51/3 and B77/2 (Figs 28 and 34), and a bronze diamond-shaped applique also accompanied B32/1 (Fig 23, 1e). This suggests that possible additional importance may have been attached to the shields with tall bosses. Iron diamond-shaped appliques have been found in connection with shields at Portway and elsewhere (Cook and Dacre 1985, 90, Fig 62, 9).

It has been possible to identify the wood from which twelve shields were made, six from willow or poplar, two from alder, one ash, two birch and one lime. Jacqui Watson points out that all are woods resistant to splitting, but willow or poplar is the lightest in weight (report below p 70).

In cemetery A shield bosses occurred in all spear graves except A8 and the half-destructed grave A4. The tall bosses were with a spear and ferrule in grave A2, and two spears and a ferrule in grave A6 (Fig 54). The distribution of shield bosses in cemetery B was quite widespread, but they were noticeably absent from two of the plots which contained male, graves, II and VII. The tall bosses only occurred in plots I, II and V (Fig 54). There were a number of spear graves without bosses in cemetery B.

In these cemeteries the male grave contents are remarkably uniform, the only outstanding difference being the ten tall bosses which contrast strongly with the fifteen low bosses. While the low bosses occur commonly in all other parts of the country, the tall, angular bosses appear far less frequently. As no general study of shield bosses has yet been published to supersede selective studies, (eg Evison 1963) it is not possible to allocate specific dates to these types. The ancestry of the boss like Beckford A2/2a at Alton, 452a, was traced back to the continental Stachel­schildbuckel type (Evison 1988, 8) and allocated to Alton’s phase 1, AD 425–75, and the taller versions at Beckford A6/1, B27/1, B32/1, B51/3, B77/2, B95/1, B Unass 3 and B Unass 5 must also be related. This type has been noted as Group 4 in an unpublished 1976 thesis by Dickinson (Welch 1983i, 138) discussed by Welch in connection with bosses from Alfriston and Highdown. Others are from Portway, grave 33 (Cook and Dacre 1985, Fig 54, 2), and three occurred, unassociated, in the Isle of Wight (Arnold 1982, 31, 124 and 126, Fig 71, 21).

Jewellery

Square-headed brooches

The square-headed brooch A11/3 (Fig 11, Pl IIa) belongs to a close-knit group noted by Leeds within his group B3, and followed as Group VI by Hines (Leeds 1949, 47ff, pls 71–5; Hines 1984, 129ff). It consists of six brooches, all found fairly close together in the west Midlands (Hines 1984, map 3.3), three and a pair in the Avon valley and one in the upper Thames valley. Hines allocates this group to his phase 2, c AD 510–50. The badly-made and ungainly studs on the Beckford brooch seem to have been added as a regrettable afterthought for the decoration of radiating lines on the lateral lobes, and the hair of the bearded head and its chain frame on the terminal lobe, are all partly covered by the studs. There are no studs on the others in this group, and they are a rather rare addition to square-headed brooches (cf Stapleford, Leeds 1949, pl 78).

The square-headed brooch B74/3 (Fig 33, Pl IIIe) has many similarities to the brooch from Market Overton (Leeds 1949, pl 62), notably the lozenge shapes in the upper corners of the head and the plain zone above the extremely formalised downward-biting animal heads on the top of the foot. The Beckford brooch, however, is at a slightly earlier stage of development since it retains fairly well-executed animal ornament on head and foot, scroll-work on the head border and eyes in a panel above the bow. The human head in relief on the foot occurs on other B types. Hines suggests that this brooch is contemporary with his Group XVI in phase 3, c AD 530–70 (Hines 1984, 173, map 3.6).

Two square-headed brooches were found in grave B70 (B70/1, 2, Fig 32, Pl IIIf, g). One, B70/1, is known only from the index card sketch and laboratory admission photograph (Pl IIIf) as it was unfortunately lost before cleaning. The only features visible on finding were the shape, a prominent median bar on the bow, and a perforation to one side of the foot. The other brooch B70/2 has been cleaned, and while it is much the same size as B70/1, the differing shape indicates that it was not an exact match. This brooch also is perforated, but in the corner of the head panel which is decorated by two Style I animal legs (Fig 4).
This motif, but with a single leg, occurs also at Alton C31/2 (another lost brooch, known only from the index card sketch (Evison 1988, Fig 42)). Others have been found at Mucking, Essex in graves 1/99, 2/843 and 2/814 (Evison 1988, 8), and at Guildown, Surrey, (Lowther 1931, pl XV, 5). Although, therefore, the type is Kentish of the first half of the 6th century, there are connections with other counties in the south of England.

**Small long brooches**

There are nine small long brooches, five in cemetery A and four in cemetery B. One pair B83/1, 2 (Fig 35) has square heads and splayed foot and a border of small stamps (cf Leeds 1945, Fig 18d, East Shefford, Berks.). Similar in shape is the pair A20/1, 2 (Fig 15, Pl IIb) except for basal notches in the heads, and decoration by ring-and-dot stamps (cf Leeds 1945, Fig 18g, Little Wilbraham 148, Camb). Belonging to Leeds' class of square-topped head-plate with basal notches is B16/8 (Fig 21, cf Leeds 1945, Fig 16a-c). Brooches A16/1 and B16/8 (Figs 15, 21, Pl IId) are cross potnt types (Leeds 1945, Fig 8b-d), and the pair A16/1, 2 (Fig 14, Pl IIC) are trefoil-headed (cf Leeds 1945, Fig 4, distribution map Fig 6). It may be noted that one of each type occurred in the same grave, B16/3 and 8 (Fig 21). All of these small long brooches are without lappets and so are fairly early, starting in the 5th century and continuing into the early 6th century. The nucleus of small long types is in the Cambridge area, but distribution is widespread north of the Icknield Way.

**Saucer brooches**

As no definitive study of Anglo-Saxon saucer, applied and applied saucer brooches has yet been published sequence and dating is problematic. Some of the saucer brooches are cast in a single piece. The five-spiral brooch A12/1 (lost, Fig 11, Pl IId) occurred in a well-furnished grave which included a disc decorated with a mask very similar to those on button brooches of similar size rather than the main run of button brooches which had diameters of about 2cm (Avent and Evison 1982, Fig 2, table 1). It shows no sign of being gilded, a quality it shares with two other button brooches from Broughton Poggs. These three belong to class K, the distribution of which is confined to the Upper Thames area (Avent and Evison 1982, Fig 10). Class K, as well as class I, was probably derived from the other large size button brooch class J, which portrayed a full human face with other surrounding details.

Graves containing class K button brooches are poorly furnished and contain no dating evidence more positive than 5th or 6th century, and grave 73 at Beckford B likewise contained only nine small amber beads. An allocation of the type to the middle decades of the 5th century, therefore, (Avent and Evison 1982, Fig 13) is mainly based on its position, in the development chain with the 4th-century applied brooch from Immer (Avent and Evison 1982, pl XVIIig) on the one hand, and, on the other, class J followed by all the smaller-sized button brooches. The position of the pin is near horizontal, 280°, but three other class K brooches have a pin in the vertical position, which is more likely in the 5th century (Avent and Evison 1982, 100) (addendum p 40).

**Applied saucer brooches**

These belong to a hybrid form where a thin, decorated plate, usually repoussé, is soldered on to the middle of the cast form of a saucer brooch. The smallest, diameter 3.7cm, is B31/1 (Fig 23), decorated with a geometrical pattern of wedges radiating from a centre. Next in size is the pair (one lost) B74/1,
the remains of a front plate decorated with animal was an applied brooch with a concave back plate and small fragment of one top plate which is silver in an animal leg motif in the triangles and animal ornament A11/2 (Fig 11).

There are five applied brooches with a flat back plate. If they originally had separate, ribbon-like rims, none have survived. The smallest, at diameter 3.3cm, is B57/4 (Fig 29, PI IV) decorated with ring-and-dot ornament and mastic remaining between the front and back plate. Slightly larger are the two 67/1, 2 (Fig 31) with lead solder mastic remaining, but only a small fragment of one top plate which is silver in colour, identified as gunmetal. Some mastic and part of the top plate remained of A11/1 (Fig 11), the design being a geometric wheel centre surrounded by a zone of animal ornament. A separate disc of white material may have occupied the centre. Also in this grave was an applied brooch with a concave back plate and the remains of a front plate decorated with animal ornament A11/2 (Fig 11).

The largest applied brooch has a diameter of 6.6cm, B Unass 8 (Figs 30 and 40). Undecorated save for a central perforation is B62/1 (Fig 30), and B61/1 (Fig 29) also has an inscribed circle. B97/2 (Fig 38, PI Vb) has three inscribed circles. Ring-and-dot stamps in a quincunx occur on B34/1, B61/2, B89/1 and 2 and B97/3 (Figs 24, 29, 36, 38, PI Vc). A larger number of ring-and-dot stamps decorate B6/1 and 3, B36/1, 2, B45/1, 2 and B68/1, 2 (Figs 18, 24, 26, 31, PI Vd e). The pair of brooches B45/1, 2 (Fig 28) is unusual as the centre part is raised as a boss. This type can have no direct connection with similar Frankish brooches of the 7th century (Böhner 1958, 2, Taf 17, 18, 24, 26, 31) but not in plots I, II, III, IV or the northern part of plot V.

Disc brooches

Disc brooches appear in ten graves in cemetery B, mostly in twos, if not in matching pairs, in B6, B36, B45, B61, B65, B89, B97, but singly in B34, B62 and B65. Completely undecorated are B65/2 and B Unass 8 (Figs 30 and 40). Undecorated save for a central perforation is B62/1 (Fig 30), and B61/1 (Fig 29) also has an inscribed circle. B97/2 (Fig 38, PI Vb) has three inscribed circles. Ring-and-dot stamps in a quincunx occur on B34/1, B61/2, B89/1 and 2 and B97/3 (Figs 24, 29, 36, 38, PI Vc). A larger number of ring-and-dot stamps decorate B6/1 and 3, B36/1, 2, B45/1, 2 and B68/1, 2 (Figs 18, 24, 26, 31, PI Vd e). The pair of brooches B45/1, 2 (Fig 28) is unusual as the central part is raised as a boss. This type can have no direct connection with similar Frankish brooches of the 7th century (Böhner 1958, 2, Taf 17, 14–16, Taf 15, 1–6). It is more likely that they are derived from disc brooches in Quoit Brooch Style with cabochon centre (Evison 1965, pl 10a), which would suggest an early date. There is some correspondence in the associated objects for two of the graves also contain a Roman coin, B88/7 and B89/7, and B6 contains five coins. A buckle occurs in four of the graves, B6/6, B61/3, B68/5 and B89/4, otherwise there is little variation in the associated objects which are mainly beads, amber and drawn glass globular, and one faceted crystal B36/4. Disc brooches occurred only in the south-west part of cemetery B, in fact, south-west of a straight line drawn from the disc-brooch grave B89 through B97 and B68 to B6 (Fig 60), and there were no disc brooches in cemetery A. They occurred in cemetery B in plots VI, VII and the southern part of plot V, but not in plots I, II, III, IV, VIII or the northern part of plot V.

Swastika brooches

These are basically disc brooches, but the openwork design presents a rather different appearance. The pair in B48 (Fig 27) are the largest with a diameter of 48cm, and they are undecorated. The pair in A9 and the single in B80 (Figs 10 and 34, PI IIIb) are
decorated with ring-and-dot stamps; A9 also has triangular stamps and the swastika is whirling in the opposite direction. The distribution mapped by Leeds shows them to be an east Midland type with some in the Avon valley (Leeds 1945, 52-3, Fig 31), and he quoted associations to place them in the late 6th century.

An unframed variant of earlier date appeared in grave 28 at Alfriston. This is a type known in the Roman period and Roman and German examples have been noted (Welch 1983, i 75–6, ii Fig 11b; Schmidt 1976, 147, Taf 198.2).

### Annular and penannular brooches

In grave A7 there were the remains of two iron rings, A7/1 on the right shoulder and A7/2 (Fig 9) on the left chest with beads in between.

There is no indication of a penannular brooch terminal on either, and it is probable that these represent a pair of annular brooches. The complete rings of the iron brooches B29/4, 5 (Fig 23) are not extant, but again they appear to have been annular. In grave B28 a large iron penannular brooch with curled terminals, diameter 5.6cm, was on the right shoulder, but it seems to have been paired with an iron annular brooch, diameter 2.5cm which was found in the skull fragments, B26/1, 2 (Fig 22). Grave B82 contained an iron and a bronze penannular brooch, both with returned terminals (B82/1, 2 Fig 35). In grave B58 an iron annular brooch was paired with a bronze penannular brooch of similar size with returned ornamented terminals (?animal heads) B58/1, 2 (Fig 29). The penannular brooch B58/1 has been compared with a brooch from Apple Down, West Sussex, grave 48 (Down and Welch 1990, 98, Fig 2.25) but the latter is described as having tightly-coiled terminals decorated with small notches near the terminals, although this is not clear from the drawing (Down and Welch 1990, Fig 2.25). A similar brooch to B58/2 occurred with a 5th-century bow brooch at Glaston, Rutland (Evison 1965, Fig 10e).

### Miscellaneous brooches

A rectangular bronze mount A3/1 (Fig 8, Pl IIIc) was converted to use as a brooch by the application of a spring holder at the back. It was decorated with Style I chip-carved animal ornament and a central, raised human half mask. The design is similar to the mask on button brooches, its undecorated hair relating it to a half-mask brooch of the B misc class from Orpington, Kent (Avent and Evison 1982, pl XV, 24.1), and the double lines under the eyes to half-mask brooches from Abingdon, Oxfordshire (Avent and Evison 1982, pl XVI, 1.3 and 1.4, class iii). All the I type brooches are dated to the 5th century, and some of the B misc class (Avent and Evison 1982, 99, Fig 13) (addendum p 40).

Another bronze mount, B12/1 (Fig 20, Pl Vf) was converted in the same way for use as a brooch. A slight curve to the horizontal bar suggests that it may have been intended to decorate a bowl. The mask at the end finishing in a spatulate shape is very similar to the terminals of cruciform brooches of Åberg's class V, where there are florid brooches with a foot finishing in a half mask and spatulate terminal (Åberg 1926, Figs 86, 87, 89–91). Like the mount A3/1 above, it is the only find in a grave, A3 containing a girl aged 78, B12 a woman aged 18–20.

### Bronze squares with spangles

These squares were decorated in various *repoussé* and stamped designs, and a perforation in each corner carried a loose ring. One of these rings served for suspension, and spangles appear to have been originally attached to the other three. This may be seen from the most complete examples A11/4 (Fig 11) and B16/2 (Fig 21, Pl Vg), while others have lost some loose parts, B26/3, B39/7 and B82/3 (Figs 22, 26, 35, Pl Vh). In some of these graves there was also a bronze cone nearby, A11/4, B16/4 and B39/7 (p 10 below, Figs 11, 21, 26). The square is a strange form of pendant which occurs elsewhere, one apparently found at Bidford-on-Avon (Humphreys et al 1923, 103 no 13). Some were quoted by Meaney with the possibility of amulet function suggested, ie Marston St Lawrence, Northants, and Cassington and Wheatley, Oxon. (Meaney 1981, 190, Fig V, pp). As these were found in bag or pocket by the hip it was suggested that they were fixed to the bags in which amulets were carried. At Beckford item A11/4 was connected with the necklace and brooches for display on the chest, B16/2 and B39/7 appear to have been connected with the lower part of a necklace, but B82/3, at knee level, was probably in a bag. B26/3, with a brooch and bronze plates, was found in a collapsed skull. Graves B26 and B82 were similarly furnished with penannular or annular brooches and the square, but no beads.

### Bronze cones

A bronze tube, conical and perforated at the narrow end for suspension, was found in two graves in cemetery A, A11/5 and A18/3 (Figs 11 and 15), and three in cemetery B, B16/4, B39/8 and B48/5 (Figs 21, 26, 27). These were earlier regarded as needle cases, but David Brown has pointed out that the open end made them unsuitable for this purpose, a needle had never been found inside one, and as bristles had been preserved in one example at Bacsordas, N Yugoslavia, as well as the delicate nature of the casing suggests use as a cosmetic aid.

At Beckford they all occurred in the grave of an
adult female, the women in A11, A18 and B48 were aged 25–30 years, B16 was an adult and B39 a young adult. These graves all contained at least one brooch, and three of them also contained, amongst other objects, a be-spangled, square bronze pendant, A11/4, B16/2, and B39/7 (p 10 above). The accompanying brooch types were varied – small long, swastika, saucer and applied. One, A11/5, was in the best-furnished female grave in cemetery A, with the square-headed brooch. All of them appear to have been suspended at the neck, or at the lower end of a necklace of beads. In grave A18 a needle was nearby, but in grave B48 four toilet implements, and possibly the cone also, were suspended from one bronze ring.

Examination of organic remains inside confirm use as a brush, as bristles were present in some, and, in addition, there were traces of a plied thread which had probably tied them together in the tubes A18/3 and B99/5, and inorganic material which may have been the adhesive to fix the bristles in the tube A18/5 (Watson below p 71 and Crowfoot p 62). In cemetery A, graves A11 and A18 were two of the five graves which were exceptionally orientated west–east, and in cemetery B the three graves were all in the same group of graves, plot V (p 27, Fig 58 below).

Beads (Tables 4–12)

In cemetery A there were amber beads in eight graves, a total of 229+, the largest numbers being in graves A23 (78), A12 (69) and A11 (44). Two of the graves contained amber beads but no glass beads, A11 and A17. These two graves were both in the exceptional orientation of west–east, but there the similarity ends, for A17 contained a girl of 11–12 who possessed beads only, while A11 was the grave of a woman between 25 and 30 and well furnished. The amber beads took on a variety of shapes and sizes (Fig 6).

Drawn segmented glass beads occurred in graves A7, A9, A12, A16 and A23, three of them gilded, and cylindrical drawn glass beads occurred singly in graves A9, A12 and A18, with four in A16. In addition a single green disc bead occurred in A16, and a single polychrome bead in both A9 and A23. It is noticeable that, although blue cylindrical drawn glass beads were present, there were none of the blue translucent annular beads which often accompanied them elsewhere.

A white disc with dark blue spiral trail, A9/4g (Fig 10), is a type which occurred at Dover, where analysis established that it contained antimony (Evison 1987, 63, Fig 12, D01). The use of antimony is a characteristic of Roman glass, but the form does not seem to occur in Roman contexts in this country (Hirst 1985, 66). The type occurred sparingly throughout the early Anglo-Saxon period (Evison 1987, 63). No antimony was detected in A9/4g, but significant levels of antimony were detected in four beads where it was not having an opacifying effect (p 68 below). A7/3c and A9/4e are drawn beads, B16/1Bd is monochrome translucent and B24/1h polychrome (Figs 9, 10, 21, 22).

Three cylindrical beads, A16/4d, e, f (Fig 21) were of decomposed white material, two of them encased in bronze, and it has been noted that a number of materials were used to achieve a cylindrical bead of white colour, for example at Dover such beads consisted of magnesium carbonate and apatite (Evison 1987, 60–1, text Fig 11, A17, A18). As the size, shape and appearance of the three beads in grave A16 are similar to white material beads found elsewhere, they have been classed as such. However, in this cemetery the material has been identified uniquely as lead/tin compound, possibly solder (M Heyworth), so that it is unlikely that the present decomposed white colour is unchanged from the original.

In cemetery B, as in cemetery A, varieties of beads were limited, although they occurred in thirty-six graves. Again, amber beads were most numerous, the largest numbers being B39/1Aa–g, 1Ba–i (147), B29/2A, 2Ba–e, 2C (119), B6/4Aa–o, 4Ba–f, 4Ca–b (104), B34/3a–c (47), B36/4a, b (38), B24/1a–f (37), B97/1a–d (30). These were in plot V with one grave each in plots VI, VIII and IV. Twenty graves contained amber beads but no glass beads, and, with the exception of B29 which contained 119 beads, these twenty graves mostly contained small numbers of beads. Seven of these were graves without brooches.

Some glass types occurred in both cemeteries, but never without being accompanied by amber beads. The drawn globular types were most common (Fig 6), and in cemetery B as in cemetery A, they mostly occurred in low numbers except for B6/4Ah–o, 4Bh–n (30), B39/1A, 1B–w (78 and 3 lost beads), B57/1h–i (20 and 2 lost beads), and B6/2e–i (10). Some were gilded or silvered (Evison 1987, 62–3). There was also the drawn cylinder type (Fig 6) as in cemetery A, with also twisted and beaded varieties (Fig 6), amounting to a total of 21 spread throughout four graves. In plot VII glass bead types were limited to drawn glass globular and cylindrical in graves 57 and 58. In addition in cemetery B there were a few monochrome glass disc and annular beads (Fig 6) with one biconical, faceted bead B102/2e (Fig 38) and one polychrome disc B39/1Am (lost, probably as A9/4g, Fig 10). There was also one ?bone bead B39/1Bj (Fig 25). Of four crystal beads, B6/4Bg and B39/1Ah (lost), were disc-shaped, but B36/4c and B74/7c were faceted as well (Figs 19, 24, 33). They occurred singly as usual (Evison 1994, 8; Meaney 1981, 77f), three of the graves on the northern edge of plot V, B36, B39, B74, and one in plot VIII. Three lost beads are recorded by index card sketch and laboratory admission photograph: B39/1An were short cylinder beads with reticella decoration. The colours are not known but they were similar in type to a reticella bead from Dover (Evison 1987, text Fig 12, D68). The two graves with polychrome beads, B24 and B39, were on opposite sides of plot V.

The variety of beads in these two cemeteries is therefore very limited, consisting mostly of amber beads (a total of 1058+) with a few glass beads (a total
Figure 6 Beads: non-glass types, monochrome and drawn glass forms and polychrome glass types. Scale 1:1
Table 4  Cemeteries A and B. Types of beads in individual graves  

Valerie Cooper

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* = lost beads, classified from excavation records, are included in these figures; + = fragments
### Table 5 Cemetery A. Non-glass beads (Fig 6)

Valerie Cooper

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* = lost beads, classified from excavation records, are included in these figures; + = fragments

### Table 6 Cemetery A. Monochrome glass beads (Fig 6)

Valerie Cooper

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### Table 7  Cemetery A. Drawn glass beads (Fig 6)  
*Valerie Cooper*

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### Table 8  Cemetery A: Polychrome glass beads  
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### Table 9  Cemetery B. Non-glass beads  
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<td>Very small roughly-shaped</td>
<td>45/4Aa; 55/3a; 58/0Aa; 98/2a; Unass.10a 3/1Ba; 57/1a 62/3a 29/2Ba, 2C; 66/4a 58/2a 6/4Aa, 4Ba 39/1Aa, 1Ba</td>
<td>1</td>
<td>84</td>
</tr>
<tr>
<td>A02</td>
<td>Small roughly-shaped</td>
<td>3/1Bb; 22/1; 53/1a; 80/3 39/2b 14/1267/3a 89/3a; Unass.10b 13/1a 1/1a; 30/1; 55/3b 83/3a 15/3Ab, 3Ba; 66/4b; 73/2 45/4Ab; 98/2b 62/3b 57/1b; 76/1a 75/1a 16/1Aa, 1Ba; 24/1a 97/1a 39/1Ab, 1Bb 6/4Ab, 4BB, 4Ca 29/2Bb</td>
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<td>--------------</td>
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<td>--------</td>
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<tr>
<td>A03</td>
<td>Amber</td>
<td>Roughly-shaped</td>
<td>6/4Bc; 45/4Ac; 55/3c; 65/1a, 63/3</td>
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<td>67/3b; 89/3b</td>
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<td></td>
<td>97/1b</td>
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<tr>
<td></td>
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<td></td>
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<td>24/1b</td>
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<td></td>
<td>39/1Ac, 1Bc</td>
<td>11</td>
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<tr>
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<td></td>
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<td>102/2a</td>
<td>16</td>
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<td>36/4a</td>
<td>18</td>
<td>74</td>
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<td>A04</td>
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<td>roughly-shaped</td>
<td>102/2b</td>
<td>1</td>
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</tr>
<tr>
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<td>Very small</td>
<td>wedge-shaped</td>
<td>39/1Ad</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
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<td>Small</td>
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<td>29/2Bc; 41/1; 57/1c</td>
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<td>16/1Bb</td>
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<td>7</td>
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<tr>
<td>A07</td>
<td>Wedge-shaped</td>
<td></td>
<td>29/2Bd; 34/3a; 53/1b; 58/3Ac; 65/1b; 67/3c; 74/7a; 83/3b; 97/1c; 98/2c</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>16/1Bc; 24/1c</td>
<td>2</td>
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<td></td>
<td></td>
<td>39/2c; 55/3d; 76/1b</td>
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<tr>
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<td></td>
<td>45/4Ad; 57/1d</td>
<td>4</td>
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<td>39/1Af, 1Be</td>
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<td>36/4b</td>
<td>20</td>
<td>61</td>
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<td>A08</td>
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<td>6/4Bd; 74/7b</td>
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<tr>
<td>A09</td>
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<td>66/4d</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>39/1Bf</td>
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<td>3</td>
</tr>
<tr>
<td>A10</td>
<td>Flat</td>
<td></td>
<td>24/1d; 58/3Ad; 66/4e; 83/3c; 98/2d; Unass.10d</td>
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<td></td>
</tr>
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<td></td>
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<td>57/1e</td>
<td>2</td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
<td>39/1Ag, 1Bg</td>
<td>6</td>
<td>14</td>
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<td>A12</td>
<td>Triangular</td>
<td>flat</td>
<td>83/3d</td>
<td>1</td>
<td>1</td>
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<td>A13</td>
<td>Pentagonal</td>
<td>flat</td>
<td>6/4Be</td>
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<td>1</td>
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<td>A14</td>
<td>Very small</td>
<td>flat, lengthwise</td>
<td>66/4f</td>
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<td></td>
<td></td>
<td>perforation</td>
<td>6/4Ac</td>
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<td></td>
<td></td>
<td>39/1Bh</td>
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<td>28</td>
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<tr>
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<td>39/1Bj; 45/4Ae</td>
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<td></td>
<td>perforation</td>
<td>13/1b; 16/1Ab; 66/4f; 97/1d</td>
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<tr>
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<td></td>
<td>3/1Bc; 24/1c; 62/3c</td>
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<td>6/4Ad, 4Bf, 4Cb</td>
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<td>29/2A, 2Be</td>
<td>24</td>
<td>69</td>
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<td>Flat,</td>
<td>lengthwise</td>
<td>58/3Bc</td>
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<td>1</td>
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<tr>
<td></td>
<td>lengthwise</td>
<td>perforation</td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>A17</td>
<td>Four-sided</td>
<td>cylinder</td>
<td>102/2c</td>
<td>1</td>
<td>1</td>
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<tr>
<td>A18</td>
<td>Very small</td>
<td>triangular</td>
<td>58/3Ae; 102/2d</td>
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<td>2</td>
</tr>
<tr>
<td>A19</td>
<td>Small,</td>
<td>triangular</td>
<td>3/1Bd; 57/1g</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>section</td>
<td>section</td>
<td>24/1f</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>A20</td>
<td>Triangular</td>
<td>section</td>
<td>1/1b</td>
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<td>1</td>
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<tr>
<td>A21</td>
<td>Small</td>
<td>almond-shaped</td>
<td>6/4Ae</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>34/6b</td>
<td>32</td>
<td>33</td>
</tr>
<tr>
<td>A22</td>
<td>Almond-shaped</td>
<td></td>
<td>34/3c</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>A23</td>
<td>Crystal</td>
<td>Large disc</td>
<td>6/4Bg; 39/1Ah</td>
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<td>1</td>
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<tr>
<td>A24</td>
<td>Large disc</td>
<td>faceted</td>
<td>36/4c; 74/7c</td>
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</tr>
<tr>
<td>A25</td>
<td>Bone</td>
<td>Short cylinder</td>
<td>39/1Bj</td>
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### Table 10  Cemetery B. Monochrome glass beads

**Valerie Cooper**

<table>
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<th>Type no</th>
<th>Colour</th>
<th>Shape</th>
<th>Catalogue no</th>
<th>Quantity in each grave</th>
<th>Totals</th>
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<tr>
<td>B01</td>
<td>Pink-brown translucent</td>
<td>Annular</td>
<td>16/1Bg</td>
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<td>1 1</td>
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<tr>
<td>B02</td>
<td>Yellow</td>
<td>Annular</td>
<td>66/4h</td>
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<td>1 1</td>
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<tr>
<td>B03</td>
<td>Dark olive translucent</td>
<td>Coiled cylinder</td>
<td>6/4Ag; 39/1Bl</td>
<td>1</td>
<td>2 2</td>
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<td>B04</td>
<td>Light green</td>
<td>Small short cylinder</td>
<td>6/4Af</td>
<td>1</td>
<td>1 1</td>
</tr>
<tr>
<td>B06</td>
<td>Green</td>
<td>Small short cylinder</td>
<td>39/1Aj*</td>
<td>1</td>
<td>1 1</td>
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<tr>
<td>B07</td>
<td>Blue-green</td>
<td>Very small short cylinder</td>
<td>39/1Bk</td>
<td>3</td>
<td>3 3</td>
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<tr>
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<td>Disc</td>
<td>16/1Bd</td>
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<td>1 1</td>
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<td>Annular</td>
<td>16/1Be</td>
<td>1</td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
<td>39/1Ai*</td>
<td>2</td>
<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>31Be</td>
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<td>6 6</td>
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<td>B10</td>
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<td>Annular</td>
<td>3/1Bf; 34/3d; 83/3e</td>
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<td></td>
<td></td>
<td>16/1Bk*</td>
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<td>5</td>
</tr>
<tr>
<td>B11</td>
<td></td>
<td>Biconical faceted</td>
<td>102/2e</td>
<td>1</td>
<td>1 6</td>
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<tr>
<td>B12</td>
<td>Black</td>
<td>Melon</td>
<td>3/1A, 1Bg</td>
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* = lost beads, classified from excavation records, are included in these figures

### Table 11 Cemetery B. Drawn glass beads

**Valerie Cooper**

<table>
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<tr>
<th>Type no</th>
<th>Colour</th>
<th>Shape</th>
<th>Catalogue no</th>
<th>Quantity in each grave</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>C01</td>
<td>Very light green translucent</td>
<td>Globular</td>
<td>3/1Bh; 58/3Bd; 66/4i; 102/2f</td>
<td>1</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>62/3e</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>64Ah, 4Bb</td>
<td>5</td>
<td></td>
</tr>
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<td></td>
<td></td>
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<td>39/1B0</td>
<td>27</td>
<td>38</td>
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<td>C02</td>
<td>Globular (double)</td>
<td></td>
<td>58/3Af</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>64Ai; 102/2g</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>C03</td>
<td>Globular (triple)</td>
<td></td>
<td>55/3e; 62/3f</td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>75/1b</td>
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<td>4</td>
</tr>
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<td>C04</td>
<td>Cylinder</td>
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<td>39/1Bp</td>
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<td>1</td>
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<tr>
<td>C05</td>
<td>Cylinder beaded</td>
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<td>58/3Ai; 62/3j</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>C06</td>
<td>Cylinder beaded, twisted</td>
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<td>58/3Bg</td>
<td>2</td>
<td>2 52</td>
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<td>C07</td>
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<td>Cylinder</td>
<td>62/3d</td>
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<td>10 12</td>
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<td></td>
<td>39/1Ak*, 1Bm</td>
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<tr>
<td>C08</td>
<td>Cylinder twisted</td>
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<td>39/1Bn</td>
<td>2</td>
<td>2 14</td>
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<td>Colourless</td>
<td>Globular</td>
<td>58/3Ag</td>
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<td></td>
<td></td>
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<td>57/1h</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>39/1Bq</td>
<td>7</td>
<td>13</td>
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<tr>
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<td>Globular (double)</td>
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<td>24/1g; 34/3e; 55/3f</td>
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<tr>
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<td></td>
<td></td>
<td>39/1Ai*, 1Br; 57/1i</td>
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<td>17</td>
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<tr>
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<td>Globular (triple)</td>
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<td>57/1j</td>
<td>7</td>
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<tr>
<td>C12</td>
<td>Cylinder beaded</td>
<td></td>
<td>13/1d</td>
<td>1</td>
<td>1 38</td>
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</table>
of 244+) which occurred mostly singly or in small numbers. This might give the impression that glass beads were rare and highly valued, but it is noticeable that the two probably most important graves in each cemetery which contained square-headed brooches contained amber but no glass beads, A11 and B74. This supports the contention that more value was attached to amber than to glass beads as noted at Sewerby (Hirst 1985, 75). The highest total and the greatest variety occurred in a well-furnished grave B39, where, in addition to a large number of amber and drawn glass there were monochrome glass beads, one polychrome, three reticella and one bone bead.

The thirteen graves which contained beads outside the normal run of amber and drawn glass, ie bone, crystal, monochrome and polychrome, occurred mostly in plot V of cemetery B (six), with two in plot VIII, one in plot VII and one in plot IV. Female graves which did not contain beads occurred on the western edge of cemetery A and throughout cemetery B (Figs 56 and 61).

The well-furnished graves in the cemetery at Dover, Kent provided some indications of date for most of the bead types which occur at Beckford, although that cemetery went on much longer (Evison 1987, 61ff), and in the later phases contained bead types unknown at Beckford. Amber beads occurred in Dover phases 1-4, AD 475-650, but mostly in phase 3, AD 575-626. The drawn globular beads (Fig 6) occurred in phases 1-3, ie AD 475-625, and drawn cylinder beads were limited to the same period (Evison 1987, 62-3). A reticella bead of the type B39/1An was found in a grave dated to phase 2, AD 525-75. Polychrome beads with crossing trails and dots like A23/5k occurred mostly in phase 3, AD 575-625, but with one in phase 1, AD 475-575. The one disc with spiral decoration like A9/4g, 59/3g, belonged to the period AD 575–625.
Two melon beads as B3/1A (Fig 18) at Dover occurred in a later period AD 650–700. Monochrome glass beads were usually more plentiful in Anglo-Saxon graves, at Dover their main period was AD 575–625, but with few before that date. There are only eleven of the dark blue translucent disc or annular beads which were ubiquitous in Anglo-Saxon cemeteries and had a long life-span (Evison 1987, 62). There were none in cemetery A, and in cemetery B they were limited to five graves: B3, B16, B34, B39 and B83, four of which were near the western edge of the cemetery in plots V and VIII. These occurred at Sewerby where they were in poorer graves than those containing amber beads (Hirst 1985, 77). At Beckford this was not the case, and they were all associated with amber beads. In five graves there was a single amber bead, suggesting possible function as a toggle or amulet, B17/1, B22/1, B41/1, B68/3 and B80/3. While Beckford was obviously in close touch with the source of amber, probably the North Sea coast, its connections with the source of supply of glass beads were slim, ie the south of England or the Continent.

**Positions of brooches and beads**

Most of the brooches were worn as a pair or as a dissimilar couple. In cemetery A the only exception is the large square-headed brooch A11/3 which was in the usual position at the middle of the top of the chest with foot pointing to the left, where it served to fasten the outer garment or cloak (Fig 42, Pl Ib). The pairs were worn one on each shoulder. In grave 20 the body was on its left side and the two small long brooches were in front of the chest, one at the top of the left humerus and the other in the middle of the ribs (Fig 43). The body in grave 23 was also on its left side, and it seems probable that in these two graves the brooches were, as usual, on each shoulder (Fig 43). In the graves with only one brooch it was on one shoulder, suggesting that the second may have been missing at the time of burial or had been lost subsequently.

In cemetery B the large square-headed brooch B74/3 was again at the middle of the top of the chest in a horizontal position (Fig 49). The other brooches were almost all at the shoulder, including brooches which occurred singly. Probably in a bag or pocket were B16/3 at the waist, B38/3 one brooch under top left femur, B45/1, 2 top left femur, B46/1, 2 pelvis, B65/2 outside left femur, B82/2 at the right hand, B89/1, 2 between top femurs. The single button brooch B73/1 was below the chin.

In most graves in both cemeteries brooches were associated with beads, and presumably fastened the ends of the necklace which often extended to the waist. In a relatively few graves, however, brooches occurred without beads (Tables 24 and 26), and in twelve graves (four of which were juvenile) beads occurred without brooches. Other items which appear to have been included on the necklace with the beads were the bronze squares with spangles, bronze cones, toilet implements and perforated coins.

**Pins**

All the pins were fairly long, the complete ones being between 8.5cm and 20.3cm. One bronze pin B36/3 (Fig 24) was simple with a perforated head. Two other bronze pins were flattened and perforated at the head: B58/4 and B62/2 (Figs 29 and 30). Two more bronze pins were flattened and perforated at the head with a loose ring, and also decorated: A12/2 and B16/5 (Figs 12 and 21). Bronze pins of this type occurred, for example, at Abingdon, Oxfordshire (Leeds and Harden 1936, pl X, 36, pl XII, 60, pl XIII, 61, pl XIV, 66). Occasionally spangles hung from the ring as at Leagrave, Bedfordshire (Brown 1915 III, pl LXXX, 2), a type which began early in the 5th century. Another bronze pin had a head ring and moulded decoration above, B8/3 (Fig 20), cf an ear-scoop at Dover grave 32 (Evison 1987, Fig 19, 3). Two iron pins had a head in the shape of a shepherd’s crook, A7/7 and A16/3 (Figs 9 and 14). Four of this type occurred at Alton, Hampshire (Evison 1988, 12) and two at Great Chesterford, 62/3 and 127/6 (Evison 1994, 19), where they belonged to the 5th and 6th centuries. All the pins were in female graves at the neck or on the chest.

**Finger rings**

A silver ring was worn on the left hand by two women in cemetery B, both of them in plot VI. B29/1 (Fig 23) was a simple band with line borders, joined by a rivet. B39/2 (Fig 25) was a spiral band with an animal head, and a number of this type are known from the east Midlands, Cambridgeshire and further south (Down and Welch 1990, 100, Fig 2 19.4). Others were found at Spong Hill, Norfolk (Hills et al 1984, Fig 92) and Mucking, Essex, graves 1/283, 1/350, 2/609, 2/690 and 2/878. Contexts range from mid 5th to mid 6th century.

**Buckles and strap mounts**

An unusual belt set at Ford, Laverstock, Wiltshire, drew attention to a series of buckles which had a long, curved metal plate, under which was a D-sectioned backing of a material variously and inexpertly diagnosed as wood or bone (Evison 1969, 115–16). At that time it was possible to quote one example from Beckford, B74/3–10, as well as others from Harnham Hill, Wiltshire, Riseley, Horton Kirby, Kent, Bletchworth Hill, Oxfordshire, and Droxford, Hampshire. Two more were found at Alton, Hampshire (Evison 1988, 20–2, Figs 6 and 7) and other examples from Apple Down, West Sussex have recently been published (Down and Welch 1990, 101–2, Figs 2:23 grave 18/1, 2.33, grave 97/2, 2.72, 26). Now further study of
the Beckford grave goods has established that there were probably nine altogether in this cemetery. The best preserved is the one already noted from B74, where a bronze plate (length 19cm, B74/8–10) is fixed to a D-sectioned curved bar of antler (Fig 33, report pp 70, 73 below). A displaced bronze fragment B74/10 must have been part of it, and an iron buckle and plate with bronze disc-headed rivet B74/8 functioned as the fastening (Fig 32).

Also, in grave B101 there is a buckle and plate B101/2a, and a curved iron plate with disc-headed rivets and mineral-preserved horn on the underside (B101/2b), and wood or bone traces on the iron plate B101/2c (total length 23cm Fig 38). Other comparable buckles are not so easily recognisable. B18/2 (Fig 21) is an iron buckle with a bronze plate which had been riveted to a thick belt. This has an opposing plate of iron with remains of leather hingeing on a matching bronze plate, which was also riveted to a thick belt of which mineral-preserved horn remained. It is therefore clear that a thick backing of horn was gripped at either end by a bronze plate, one end hinged with a leather belt and the other attached to the buckle. A similar arrangement is to be seen on B57/2 and 3 (Fig 29), where there is a wide space for a thick substance between the buckle plates B57/3 where there was mineral-preserved horn between the plates. Only half of the hinge at the other end remains, but again there is mineral-preserved horn under the plate. In B18 and B57 the short plates remaining are complete, so that it appears that the horn strip was without a metal covering for most of its length as in B74 and B101. Similarly B84/1 (Fig 35) is an iron buckle with bronze plate widening for a thick belt.

It is normal for the backplate of an Anglo-Saxon buckle to be of the same length as the top plate, but the under plates on B89/4 (iron), B29/3 and B68/5 (both bronze) (Figs 36, 23, 31) are much shorter than the top plate. The under plate of iron B16/10 (Fig 21) is also short, but in addition it is diverging from the upper plate to accommodate a thick belt. It seems highly likely that the under plates on these buckles were left short because of the thickness of the belt, and that these buckles also were attached to a horn or antler plate. No buckle of this type occurred in cemetery A. In cemetery B they occurred in the most important female grave, B74, and the rest of the graves are definitely female with the exception of B18 and B84 of doubtful sex. In grave 18 there was only a knife, and no finds at all in grave B84, so that the identification of these two graves as possibly male rests solely on the bone report. This type of buckle elsewhere, however, has been found in both male and female graves (Evison 1988, 20). The use of antler and horn as protective amulets has been discussed by Meaney (1981, 139–42). One might suspect the existence of such non-durable belts wherever there is a widening space between the plates, or a shorter under plate, for example at Alton (Evison 1988, 7/3, Fig 25, 34/3, Fig 32).

One buckle is a continental, shield-on-tongue type B1/2 (Fig 18) which is of white metal over an iron core, found with two shoe-shaped rivets. Two similar white metal buckle sets were found at Dover (Evison 1987, Fig 10, 15/2, Fig 45, 96a/3). The period of use of this shield-on-tongue type of buckle extended from about AD 525 to 625 (Evison 1987, 87–9).

Nine buckles simply consist of a loop and tongue: A1/1, A5/1, A13/5, A22/4, A23/6, B10/1, B33A/1, B34/6, B76/9 (Figs 8, 13, 16, 16, 20, 24, 24, 32). In one of these graves there was a second, smaller buckle, which, by reason of its position near the skull and shield boss, is assumed to belong to the shield and not to a waist belt A13/3 (Fig 13). The same function is attributed to A2/3, A14/6 and B94/3 (Figs 8, 13, 37). Four buckles have an iron plate, either long rectangular or with rounded ends: A14/5, B6/6, B8/4, 5 and B17/2 (Figs 13, 18, 20, 21). Two had decorative bronze rivets: A16/6 and A18/4 (Figs 14 and 15). Seven iron buckles had rectangular bronze plates: with repoussé dot decoration A12/9 and B29/3a (as mentioned above) (Figs 12 and 23), and cast: B61/3, B68/5 (mentioned above), B84/1, B94/3 (shield buckle) and B102/3 (Figs 29, 31, 35, 37, 38). An unassociated buckle, A Unass/10 (Fig 17) has a fragmentary plate which may have been square.

There are a few bronze tongue-shaped strap ends, A8/6, A12/7, B29/3b and B48/1 (Figs 10, 11, 23, 27). One is square-ended: B6/7 (Fig 18). A tongue-shaped strip with central perforation and cast rivets might have functioned as an anti-buck B29/6 (Fig 23). A rectangular bronze belt mount has a slot for a suspension strap B101/3 (Fig 38). A rectangular bronze strap mount has repoussé dot decoration B6/8 (Fig 18).

Belt buckles do not seem to have been part of normal male attire at Beckford. As noted above, two horn-backed buckles, B18/2 and B84/1 were in graves where sexing depended on doubtful bone evidence only. Only two buckles unconnected with a shield were definitely in male graves. These were in a cemetery A, A1/2 and A13/5, and both of these were a simple loop and tongue, close to a knife, and might have been used in connection with the knife sheath rather than a belt. A bronze strap end does appear, however, in one male grave A8/6 (Fig 10), but no buckle.

**Coins**

There were no coins in cemetery A, but there were coins in six female graves in cemetery B, B6, B39, B44, B68, B75 and B89 (Figs 19, 26, 26, 31, 33, 36). Some coins were perforated and suspended at the neck, with beads in B39 and B75, and as a single pendant in B44. Presumably in bags in the region of the thighs were unperforated coins B6/9e–g, B68/7 and B89/6. The perforated coins were all worn thin and blank, but the impressions were clear on the unperforated coins. The three perforated coins were in graves fairly close to each other in plot V. Of the unperforated coins B68 was also nearby and in plot V.
The three graves in which an unperforated coin was found in a position suggesting it was in a pocket or purse were graves where the women were wearing disc brooches decorated with ring-and-dot stamps. Two of these, graves B6 and B89, were on the north-west and south-east outside edges of the cemetery, and grave B68 was midway between, so that the three were in a straight line crossing the entire cemetery. Grave B39 with a perforated coin, also in plot VI, contained saucer brooches similar to disc brooches with concentric circle decoration. The remaining two graves, B44 and B75 contained no brooches. Therefore, there seems to be some correlation between the disc brooch type and possession of coins.

**Bronze disc**

A small, decorated disc, A12/6, was found in sieving the earth from the chest area of grave A12. It is lost, and known only from a laboratory admission photograph (PI IIId) and description and sketch on the index card. Its shape, size and human face design links it with the series of button brooches, although the absence of any rim or pin fittings show that it can never have been intended as such. In fact its purpose remains obscure because of a cast rivet stump off-centre at the back and a perforation, also off-centre, punched through the design. A disc such as this, with a similar design of a human mask, was sometimes applied on the bow of a square-headed brooch, (Avent and Evison 1982, pl XIXa), but if this had been its function the rivet or perforation would have been in the centre and it is probable that this disc is miscast. In grave A12 it was presumably suspended with the necklace of amber and glass beads.

This roundel was related by Avent to the class of button brooches B misc, (Avent and Evison 1982, 82), but it has one rather rare characteristic, a vertical band of lines in the middle of the crown, which only appears elsewhere on a class I button brooch from Mucking, Essex, a class III brooch from Vron in France, and a pair of class K brooches from Brighthampton, Oxfordshire (Avent and Evison 1982, pl XVI, 22.7, 22.8, pl XVII, 39.4, 7.2 and 7.3). Although, therefore, it has a small size and some design characteristics in common with the B misc class which ranges from the late 5th to early 6th century, it has one other characteristic in common with the larger forms of the exclusively 5th-century classes I-J-K. It was in a well-furnished grave which included a saucer brooch with five-spiral design, a type which began in the 5th century. The position of the grave beside a space marked with postholes would seem to be one of importance (see below p 27).

A recent find at Apple Down, West Sussex, of a bronze roundel with central human face, also has a vertical band at mid crown (Down and Welch 1990, Fig 2.76 (1) pl 49F), and so is related to these early button brooch types as well as to similar saucer brooches (Avent and Evison 1982, 98). The central roundel of a human face has a pointed chin, but it seems likely that the whole fragmentary object was of disc shape. The half-mask with vertical band of lines on the head and lines under the eyes corresponds with class III button brooches (Avent and Evison 1982, pl XVI, 1.3 and 4). The distinctive border of lines in triangles with pellets is closely paralleled by three saucer brooches related to class K button brooches (Avent and Evison 1982, 98; Brown 1915 III, pl XLVII, top rig t), and also by the border on the cast applied scroll-decorated saucer brooch of c AD 400 from Caistor-by-Norwich (Myres and Green 1973, 90, text Fig 2). These are probably early forms, therefore, not far along the line of development from the 4th-century applied brooch with central face roundel and surrounding plain zone from Immer (Avent and Evison 1982, pl XVIII, g). This is one of the reasons given in 1982 why an unbroken sequence of development of Saxon applied, saucer and button brooches is more acceptable than a late 5th to early 6th-century button brooch invention from Scandinavian wrist-clasps (Welch 1985) (addendum p 40).

**Personal equipment**

**Knives**

The knives were mostly severely corroded so that the original size and shape cannot be established. Their condition was slightly better in cemetery A, but in cemetery B their condition was far more deteriorated than it seems possible that some could have disintegrated altogether. This might account to some extent for the differing proportions of totals, for fifteen knives were found in twenty-eight graves in cemetery A, and only twenty-five with the 108 bodies of cemetery B. The shape of only thirteen knives can be distinguished with any certainty, and they are mainly of the most common kind, with both edges curving to the point, called Type 1 at Dover (Evison 1987, 113). Seven of these were in cemetery A, A1/1, A5/2, A13/4, A15/1, A21/1, A22/3, A24/1 (Figs 8, 8, 13, 14, 15, 15, 16), and three in cemetery B, B3/2, B5/3 and B7/4/5 (Figs 18, 18, 32). In cemetery B there was also one of Type 2, straight back with curved cutting edge B81/3 (Fig 34) and two of Type 3, angled back with curved cutting edge B6/5 and B92/2, Figs 18, 36).

The radiograph of A13/4 (Fig 13) shows a welding line along the blade, indicating the joining of a separate cutting edge. Three parallel grooves are suggested by the radiograph of B48/2 (Fig 27). On the blade of the knife A25/3 (Fig 17) a groove along the back and a small half-moon stamp are clearly visible on a smooth, original surface, while the rest of the blade is covered with corrosion at a higher level. Five of the tangs show the remains of a horn grip, and one of wood (p 70 below). More of the knives were in male graves in cemetery A, i.e. nine male, five female and one juvenile, while in cemetery B the numbers
were more equal, eleven male, thirteen female and one juvenile.

**Toilet implements**

Four implements were suspended from a bronze ring in B48 (Fig 27), one being an ear-scoop and another a pin or pricker like the pin A12/2. Other separated pins and ear-scoops occurred: A8/4, A23/4, B74/4 (Figs 10, 16, 32). Such sets of toilet implements were quite common, for example at Abingdon, Oxfordshire and Alton (Leeds and Harden 1936, pl VI, 5, pl VIII, 26; Evison 1988, Fig 30, 27/2, Fig 33, 37/3). In addition there were two tweezers A23/3, B66/1 (Figs 16 and 30) and needles A18/2 and B45/3 (Figs 15 and 26). The tweezers and needles as well as the toilet implements, were in female graves.

**Ivory rings**

Three of the women possessed an ivory ring. In grave B67 the ring B67/4 (Fig 31), in a fairly complete state, was lying half under the lower end of the right femur with iron keys B67/5 inside it. The ring was presumably suspended from the waist and acted as the frame for the opening of a bag which contained the keys (Myres and Green 1973, 100–3, text Fig 3).

The ivory ring B71/2 (Fig 32) was mended with bronze strips, and two smaller iron rings were lying concentrically inside it, together with some keys, all outside the top left femur. It seems likely that the two iron rings were associated with the construction of the bag. The ivory ring A12/10 (Fig 12) was lying under the left femur with, concentrically inside it, a ring of strip bronze attached outside a turned wood ring. A suggestion by J Watson that it was the rim of a turned wooden vessel is not possible as only a fairly flat object would have lain under the femur. An iron ring which may also have been structurally connected was nearby. Inside was a bronze spoon bowl, keys and a small iron ring, and another key was nearby, under the left knee, A12/10–15 (Fig 12). In these two cases, therefore, the ivory ring was accompanied by other rings, iron and a bronze and wood ring, and contained keys. This may be compared with a bag in Great Chesterford grave 18, where the ivory ring was also accompanied by an iron ring and a bone ring (Evison 1994, Figs 22, 23, 18/13, 14), and the bag contained keys, etc.

These ivory rings were in use throughout the early Saxon period and were in widespread use, in Kent, Wiltshire, the upper Thames, the Icknield Way, the Wash, and as far north as North Yorkshire (Evison 1987, 118–19, Fig 118). It is not known whether the ivory was of Indian or African origin, and the use of fossil ivory is ruled out because of its fragility (Myres and Green 1973, 101, note 5). The Anglo-Saxon rings indicate that the extensive trade by Rome in both Indian and African ivory did not cease with the end of the Empire (Warmington 1928, 162–5).

**Spoons**

The bowls of two Roman spoons were found in cemetery A, A12/14 and A16/11 (Figs 12 and 14). A16/11 is a bronze bowl of oval shape with two perforations, into the larger of which is threaded a beaded bronze ring. A12/14 is of tinned bronze and is an oval, slightly pointed at one end, and was found in a bag with an ivory ring under the left femur. A16/11 was also under the left femur, presumably also in a bag.

The bowl of a spoon was found at Little Wilbraham, Cambridgeshire at the hip of one body in a triple grave (no 3) (Lethbridge 1931, 73–4, Fig 39). As it was accompanied by, amongst other objects, an egg-shaped piece of wood enclosed in bronze hoops, a possible analogy with crystal balls and perforated spoons has been suggested. There is no such associated object at Beckford and simple function as a utensil is probable. Other occurrences in Anglo-Saxon graves have been assembled (White 1988, 137–9, Figs 80 and 81). Spoon bowls also appear on chate­laines on the Continent (Meaney 1981, 156, 225).

**Containers**

**Buckets**

An iron-bound bucket A8/2 (Fig 10) with three hoops and a hooked handle was found in a man's grave. The wood was yew, as it was also in the case of the two bronze-bound buckets B10/3 and B4/1 (Figs 20 and 35). The fragments remaining of B10/3 show evidence of a normal Anglo-Saxon bucket with U-sectioned rim binding and decoration by repousse dots. Enough remains of B8/1/4 to show that that was of similar construction, although larger and undecorated, with four hoops and an iron handle. Slightly smaller was the wooden vessel A14/3/13, of which the bronze rim was in situ 7.5 cm above the floor of the grave. This must have been a cup rather than a bucket.

**Pottery**

There was very little pottery, and this occurred only in cemetery B. One badly-made, undecorated, flat-based bowl was deposited in an inhumation, grave B78, as the only object with a possibly male adult (Fig 4). There were four cremations in pots, although only a sherd remained of cremation 4. Only the lower part remained of the other three undecorated pots (Fig 39), all of them globular. The pot in cremation 2 had the additional characteristics of a ring foot and a perforated lug. There is one unassociated sherd, B Unass/9 (Fig 40), the rim of a black, narrow-necked vessel, but the almost complete absence of loose sherds in the areas excavated suggests a scarcity of pottery in the neighbourhood. The fabric of B78/1 and the cremation pots is sandy and blackened red.
3 Discussion

Human bones

The two cemeteries were only 600 yards (548.64m) apart, they were both on sand and gravel and equidistant from the Carrant Brook, and there appeared to be no visibly appreciable difference in the type of soil. However, the bones of the skeletons in Beckford A were moderately well preserved, but the skeletons in Beckford B had decomposed much more so that often only fragments of skull and long bones remained. This affected the report on the bones (pp 41–62 below), so that less detail is available on Beckford B. Nevertheless, the detailed report by the late Dr Calvin Wells adds valuable information towards building up a picture of this Anglo-Saxon group.

There are a few differences regarding sex and age between the bone report and the records of the contents of each grave. The information from both sources is listed for comparison in Tables 13 and 14 and differences indicated. Where the grave plan shows that the occupant was too small to have been an adult, Ju = Juvenile, is entered in the penultimate column.

The fact that the male remains in Beckford A were more robust than the female suggested to Dr Wells that the males were privileged to have a better diet than the females (p 47). Anglo-Saxon norms are to be seen in the mean stature of the males of 5ft 8in (173cm) and a slightly longer life span for the males. Spina bifida was detected in five persons in cemetery A, A3, A8, A11, A19 and A20, a fairly high percentage. This may have caused the slighter physical development of four of these people, but the man in grave A8 was sturdily built. Their age at death was also earlier than the norm, three being under 20 and two between 25 and 35. Two, A19 and A20, were buried side by side, and the other three, A8, A11 and A3 were together.

A definite case of leprosy was diagnosed for the occupant of grave A8, a well-built man whose toes were deficient or diseased (Wells 1962a). Two other possible cases were also suggested, the woman in grave A11, next to grave A8, and the man in grave A22. A brother and sister relationship was suspected by Wells between A8 and A11 on the basis of partly similar vertebral anomalies and the leprosy in common. Other lepers of the 7th century have since been reported at Eccles in Kent, Burwell in Cambridgeshire and Tean, Isles of Scilly (Manchester 1981).

A hole in the skull of the person in grave A2 (pl VI a, b) was probably the result of a cut from a sharp weapon. The bone report suggests that this skeleton was probably female, but the accompanying spear and shield show that it was a weapon-bearing male, and therefore more likely to incur such an injury. The man with two spears in grave 11 had suffered a probable thigh wound.

Regarding age, the class limits adopted by Wells for these cemeteries were: adults, more than twenty-five years, young adults 18–24, adolescents 13–17, children less than thirteen. As the totals of sex and age using information from the grave finds and excavation records, as well as the bone report, are slightly different from those given in the bone report, these totals are set out in the following tables 15 and 16.

In cemetery A the sexes were fairly evenly divided, 14 males to 12 females and 2 not sexed. In cemetery B, however, there were 34 males, adult and juvenile, 55 females and 19 skeletons were unsexed. There were 36 non-adults, ie below the age of 18, representing 33.02% of the total, higher than normal for an Anglo-Saxon cemetery, (eg about 20% at Dover), but it is less than the unusually high figure of 42.5% at Great Chesterford (Evison 1994). As the total at Great Chesterford is likely to reflect the normal juvenile death total for Anglo-Saxons of this period, there must have been alternative disposal methods for juvenile bodies at Beckford as at most other cemeteries. Infants, for instance, with one exception, are noticeably absent. It may be noted that there was a lower proportion of child deaths in cemetery A, 27.27%. More females than males died as young adults in cemetery B. Wells estimated the mean age at death in cemetery A of adult males as 31.9 years, and the mean age at death of adult females 26.1 years, and he suggested that this difference may have been caused by malnutrition from an inferior diet for women (see below p 47).

It has been noted that men with weapons in some cemeteries were taller than men without weapons (Härke 1990, 39, table 4). As it is believed that the Anglo-Saxons were a few centimetres taller than the Romano-Britons who were no taller than 170cm, it is suggested that this provides an indication of race. Although the disintegrated state of the bones in Beckford cemetery B precluded estimates of stature, in Beckford A the stature was estimated of four men with weapons and two without, with the result that three of the armed men were over 170cm tall, and one below, but both of the unarmed men were also over 170cm tall.

To extend attention to other recently published cemeteries, at Alton stature was estimated for five male skeletons (Evison 1988, 61, table 24, where grave 12 is also listed on bone evidence as male, although the grave goods indicated a female). These five all come into the shorter category, but all had
Table 13  Cemetery A. Sex and age at death according to bone report, finds and records

<table>
<thead>
<tr>
<th>Grave number</th>
<th>Bone report</th>
<th>Sex</th>
<th>Age</th>
<th>Finds and records</th>
<th>Discrepancy</th>
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<tbody>
<tr>
<td>1</td>
<td>M</td>
<td>30-40</td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td>?F</td>
<td>?25-30</td>
<td>M</td>
<td>X</td>
<td></td>
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<tr>
<td>3</td>
<td>?</td>
<td>Child 7-8</td>
<td>F</td>
<td>Ju</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>M</td>
<td>18</td>
<td></td>
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<td></td>
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<tr>
<td>5</td>
<td>?</td>
<td>Child 6-7</td>
<td>?</td>
<td>Ju</td>
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<tr>
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<td>M</td>
<td>25-35</td>
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<tr>
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<td>Adult</td>
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Table 14  Cemetery B. Sex and age at death according to bone report, finds and records

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**Cremation number**

1. Probably human
2. Probably human
3. ?
4. ?
Table 15 Cemetery A. Totals of sex and age at death according to bone report and excavation records

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Totals: Male adults 14; total males 14; female adults 8; female non-adults 4; total females 12; not sexed non-adults 2; total not sexed 2; adults 22; non-adults 6; inhumation total 28.

Table 16 Cemetery B. Totals of sex and age at death according to bone report and excavation records

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<td>2</td>
</tr>
<tr>
<td></td>
<td>Juvenile</td>
<td>4 12B 19 21 33A 33B 42 49 50 52 59 69 87 88 100 103</td>
<td>16</td>
</tr>
<tr>
<td>Cremations not sexed or aged</td>
<td>1 2 3 4</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Totals: male adults 27; male non-adults 7; total males 34; female adults 44; female non-adults 11; total females 55; not sexed adults 1; not sexed non-adults 18; total not sexed 19; cremations not sexed or aged 4; adults 72; non-adults 36; inhumation total 108; cremation total 4

Weapons. At Dover stature was estimated for six male skeletons (Evison 1987, 201, Table LII). Four were tall and with weapons, but of two 169cm tall, one was with weapons and the other without.

At Great Chesterford (Evison 1994), the burials were in a Roman cemetery and outside a Roman town, so that Romano-Britons were likely to have been present. The stature could be estimated of 28 males. Of the nine with weapons, three only were over 170cm and six were under 170cm. Of 18 without weapons twelve were 170cm or under, but six were over 170cm. The figures do not therefore support the theory strongly, but at this site it is possible that some of the twelve without weapons were Romano-Britons, as this possibility had already been suggested in respect of some because of other factors. The information on stature in these four cemeteries is very sparse, but such as it is, correspondence between stature and arms is hardly significant and not generally useful as a guide to ethnic origins.

Skeleton positions

In cemetery A sixteen skeletons were supine, and in three of these one leg was crossed over the other. Eight were placed on their sides, one of them, A20, in a stomach-down position which was nearly prone.
In cemetery B the number of graves where the position of the skeleton is reasonably clear is 93. As in cemetery A the majority, 66, were supine, but never with arms and legs rigidly straight, and in 13 the legs were crossed. The skull was sometimes turned left and sometimes right, five being to the right in cemetery A and seven left. In cemetery B 22 were turned right and 11 left. Twenty-four of the bodies were on the side, of which all except four were on the right side. The right side was also favoured at Alton (Evison 1988, 30). Three were buried in a prone position, all of whom were adult females, B57 was young and B48 and B63 were between 25 and 30 years. Two of these graves were quite well-furnished, B48 and B57, but there were no finds with B63. There was nothing odd about the position of these graves, and the grave furnishings were similar to those in other graves. However, it is possible significant that B63 is the only definitely adult female grave in either cemetery which was without grave goods. Apart from this there is no evidence to show that this form of burial at Beckford was a mark of disapproval, as it seems to have been sometimes elsewhere (Evison 1987, 133–4; Evison 1994).

Table 17  Skeleton positions

<table>
<thead>
<tr>
<th>Grave numbers</th>
<th>Cemetery A</th>
<th>Cemetery B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Supine</td>
<td>On side</td>
</tr>
<tr>
<td></td>
<td>1 2 4 5 6 7 8 11 12 14 15 16 17 18 21 22</td>
<td>3 9 10 13 19 20 23 24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supine</td>
</tr>
<tr>
<td></td>
<td>5 6 8 9 11 12 14 15 19 20 21 23 25 26 27 29</td>
<td>4 7 10 12B 13 16 17 22 24 28 31 32 33B 46</td>
</tr>
<tr>
<td></td>
<td>33A 34 35 36 38 39 40 41 43 44 45 47 49 53</td>
<td>50 51 55 56 59 62 73 82 87 98</td>
</tr>
<tr>
<td></td>
<td>54 58 60 61 62 64 66 67 68 70 72 74 75 76</td>
<td>Prone 48 57 63</td>
</tr>
</tbody>
</table>

Orientation and layout

Cemetery A (Figs 2 and 7a)

The eastern side of the cemetery had been destroyed by gravel-digging, but a definite limit to the cemetery was found on the west and south. This gives a partially curved outline to the group of graves, and suggests that a circular shape might have been dictated by a reused prehistoric tumulus on which the Anglo-Saxon burials were secondary. If this is true about half the graves have been lost, and the tumulus would have been c 62ft in diameter. The graves were well spaced, and there was superimposition in only one case, so that surface markings must have been present. They were grouped in three plots (Fig 53). Three graves to the north, A15, A16 and A21 in plot I were separated from the rest by a space, and another space, west of grave A6, was occupied by two postholes, both 9in in diameter and 4ft deep which may indicate markers or part of a small ritual structure.

In this cemetery most of the graves were aligned south–north, the head at the south end, ie sixteen graves, but five graves were west–east, and three were in a reverse direction, north–south (Figs 7a and 53). The south–north graves were together in the northern part of the cemetery, the northernmost group of three, plot I, A15, A16 and A21, being distanced from the rest. These three graves give the impression of being an isolated group or single graves separate from the others. Here a well-furnished female grave is accompanied by two graves, one male and one possibly female juvenile, with only a knife in each. The other graves in plot II were aligned sideways more or less regularly in three rows, A2–A4, A9–A13–A14–A24 and A1–A6–A12–A22–A20–A19. Southwards from there the dispositions changed in plot III for next came a row of three graves A3–A7–A23, where the bodies were in the reverse direction, north–south with the head at the north end, except for a small infant grave, A10 in a south–north direction. The remaining five graves, A11, A5, A8, A17 and A18 were in two rows in a west–east direction with head to the west. The slight overlapping and identity of orientation suggest a relationship between the child in A5 and the man in A8. There may similarly be a relationship between the infant in grave A10 and the adjacent woman in grave A11, although there is a difference in orientation.

Before the excavation four graves were excavated by the Vale of Evesham Historical Society, of which graves A26, A27 and A28 were south–north, but grave A25 was west–east, the south–north graves possibly continuing the rows from 1 or 9 eastwards, and the west–east grave possibly in the region of A11 or A8. A straight line drawn from between graves A1 and A3 to between graves A18 and A19 may have some significance (Fig 53) as it divides the south–north burials from the west–east and north–south burials. East of this line the burials were women and children with the exception of the one man in grave A8. The occupants of graves A8 and A11 were lepers (pp 43–4). North of this line the graves were mostly of both male and female adults, including a possible leper, A22. Juveniles were near the outer edges of the cemetery in both sections, ie A15, A19, A17, A5 and A3. The armed men were in the south–north rows in the northern section, A2, A4, A13, A14, A6, A22, with the exception of the west–east grave A8 to the south. The south–north graves were pointing just west of north, ie between 329° and 358°, and the east–north graves were at similar opposing angles, pointing just east of south. The west–east graves were orientated just north of east, between 71° and 79° (Fig 7a, Tables 18 and 19).
Figure 7  Orientation of Beckford graves. a Cemetery A. b Cemetery B.
### Table 18  Cemetery A. Grave orientation from True North in orientation order

<table>
<thead>
<tr>
<th>Orientation group</th>
<th>Orientation in degrees</th>
<th>Grave number</th>
</tr>
</thead>
<tbody>
<tr>
<td>South–north</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>329</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>337</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>338</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>340</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>340</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>340</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>341</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>342</td>
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<td></td>
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<td>2</td>
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<tr>
<td></td>
<td>344</td>
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<td>14</td>
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<tr>
<td></td>
<td>348</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>348</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>350</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>351</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>358</td>
<td>19</td>
</tr>
<tr>
<td>West–east</td>
<td>71</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>75</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>77</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>78</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>79</td>
<td>18</td>
</tr>
<tr>
<td>North–south</td>
<td>150</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>156</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>164</td>
<td>23</td>
</tr>
</tbody>
</table>

### Table 19  Cemetery A. Grave orientation from True North in grave order

<table>
<thead>
<tr>
<th>Grave number</th>
<th>Orientation in degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>350</td>
</tr>
<tr>
<td>2</td>
<td>343</td>
</tr>
<tr>
<td>3</td>
<td>156</td>
</tr>
<tr>
<td>4</td>
<td>329</td>
</tr>
<tr>
<td>5</td>
<td>77</td>
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<tr>
<td>6</td>
<td>344</td>
</tr>
<tr>
<td>7</td>
<td>150</td>
</tr>
<tr>
<td>8</td>
<td>71</td>
</tr>
<tr>
<td>9</td>
<td>338</td>
</tr>
<tr>
<td>10</td>
<td>342</td>
</tr>
<tr>
<td>11</td>
<td>78</td>
</tr>
<tr>
<td>12</td>
<td>340</td>
</tr>
<tr>
<td>13</td>
<td>348</td>
</tr>
<tr>
<td>14</td>
<td>344</td>
</tr>
<tr>
<td>15</td>
<td>348</td>
</tr>
<tr>
<td>16</td>
<td>351</td>
</tr>
<tr>
<td>17</td>
<td>75</td>
</tr>
<tr>
<td>18</td>
<td>79</td>
</tr>
<tr>
<td>19</td>
<td>358</td>
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<tr>
<td>20</td>
<td>341</td>
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<tr>
<td>21</td>
<td>340</td>
</tr>
<tr>
<td>22</td>
<td>337</td>
</tr>
<tr>
<td>23</td>
<td>164</td>
</tr>
<tr>
<td>24</td>
<td>340</td>
</tr>
</tbody>
</table>

### Table 20 Cemetery B. Distribution of the sexes in plots I–VIII

<table>
<thead>
<tr>
<th>Plots</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male adult</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td>9</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>7</td>
<td>27</td>
</tr>
<tr>
<td>Male juvenile</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Female adult</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td>23</td>
<td>2</td>
<td>7</td>
<td>2</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>Female juvenile</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unsexed adult</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Unsexed juvenile</td>
<td>1</td>
<td>4</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td>18</td>
<td></td>
<td>108</td>
</tr>
</tbody>
</table>
grave, B7, was a man's grave with spear and shield. Grave B3 was, however, on the edge of the cemetery, and B7 must have been very near the original edge.

Discrete groupings may be discerned on the plan with varying degrees of certainty. Most of the graves appear to be aligned sideways in rows, but various clusters of graves with extended spaces between the clusters suggest the superimposition of a different kind of order. These plots are allocated numbers for ease of reference (Fig 58). Five graves are isolated in the north-east, possibly divided into two groups, B92–B95 (plot I), and B71–B77–B96 (plot II).

West of these is another group, plot VII, arranged in an oval shape which contains three of the cremations, C1, C2 and C3, and inhumations B81, B82,
B79, B78, B72, B58, B41 and B57 forming the outer limit, with B50, B76, B26 and B28 on the inside. B8, however, is in an isolated position. Towards the centre-east four graves are distanced from the others: B83, B101, B100, B99 and are regarded as plot III. To the south-east is a larger group, plot IV, in which the graves appear to have been dug to a fairly straight line limit marked by cremation 4 and graves B105, B102, B98, B93, B84, B42 and B53, and B106 may be regarded as an outlier of this group.

This leaves the largest group in the middle, plot V, in which a circular outline is marked out by graves B36, B38, B39, B56, B60, B67, B68, B69, B73, B70, B63, B61, B35, B27, B23, B31, B24, B15, B16, B32 and B30. To the south B43, B22, B21, B20 and B14 are no doubt connected, although just outside the circle. On the western side B12 and B13 are also probably connected with this group as there is a space before the next group with a curved edge, B1, B11, B10, B5, B7 with B2 and B9, plot VII. The separate row B9–B4–B6 is labelled plot VIII. It therefore appears that, as in cemetery A, the Saxons were attracted to this site by a prehistoric tumulus on the site of plot V, and this was c 90ft in diameter (Fig 58). One of the earliest graves is on the limit of this circle, B73, with a class K button brooch, and a later important woman's grave with square-headed brooch, B74, is positioned beside it in alignment.

There are no clear-cut reasons for this division into plots, such as chronology or sex, but some differences can be observed. There are a few clusters of male graves, notably in the north-east and south-east sections, but others also occur singly (Table 20). Juvenile graves are mainly situated in the south-western part of the cemetery. Male, female and juvenile graves intermingle in all of the main plots. Most of the female graves occur in plot V (Table 20), and in plot VII the number of females exceeds the number of males. The sexes are nearly equal in plots IV and VI.

There appear to be special areas allocated to children, and they often occur on the outer edges of the cemetery. In plots VI, VII and VIII there are graves B9, B58, B79, B82 and B4. Most are on the west of plot V: B33, B50, B44, B19, B30, B32, B29, B59, B52 and B49, with some in the north of plot VI: B12A, B13, B40, B56, B68, B69 and B107, some in the south: B15, B21, B22, and one to the east: B65. Five were near together in plot IV: B42, B46, B88, B85 and B87, while B106 and B103 were on the eastern edge, and there were two in plot III: B99 and B100.

**Social status**

Possessions were placed in most Anglo-Saxon graves of the 5th to 7th centuries. The reasons for this custom are debatable (eg Harke 1990). It has often been assumed that they were objects used by the deceased during his or her life, and, as such, they reflected the status of the owner. It may be that they were items selected for the funeral display specifically to establish status, and/or items appropriate only to that individual which could not be inherited. In any event, it seems likely that they were probably the trappings which had habitually been carried by the individual in life on formal occasions, the women with their brooches, the men with arms, again as a witness to status. On this principle the leper with spina bifida in grave A8 who could not have been in military service at the time of his death, was nevertheless provided with a spearhead and other goods in his grave.

There does not appear to be any regular relationship between the number of objects in a grave and its depth. However, the deepest grave in cemetery A, A6, does seem to have some importance (pp 33–4 below), and the deepest grave in cemetery B is B39 which is also comparatively distinguished by its range of contents.

**Cemetery A: male adult graves**

The ten male graves found in situ and the four rescued earlier differ very little in their contents (Table 23). There is no sword grave or one richly furnished which would indicate a man of higher rank. Six have both spearhead and shield boss, A2, A6, A13, A14, A22 and A25 (Figs 8, 9, 13, 15, 16), but it is not impossible that a spear or boss might have been lost from any of these graves in ploughing as they are both items which are often above the floor of the grave. Two of the shield bosses are noticeable as being of a much taller variety.

Four of the other graves A1, A21, A24 and A27 were identified as male by the bones, and did not contain weapons. Each of these four men was accompanied by a knife, and A1 had a buckle as well, probably associated with the knife. There was a buckle in four other armed male graves, all probably on a shield strap, A2, A13, A14 and A22, but other objects in male graves were very few, limited to an iron-bound bucket, bronze ear-scoop, strap end and an iron strip in A8 (Fig 10), and a bronze rim binding to a wooden vessel in A14 (Fig 13). The only other differences

---

**Table 23 Cemetery A. Male adult graves classed according to grave goods**

<table>
<thead>
<tr>
<th>Spear and boss</th>
<th>Spear</th>
<th>Boss</th>
<th>Weapon-less</th>
<th>Find-less</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 (+f)</td>
<td>4 (2)</td>
<td>26</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6 (2+)</td>
<td>8</td>
<td>28</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>14 (2)</td>
<td></td>
<td></td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>22 (+f)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

f = ferrule
were the inclusion of a second spear in A4, A6 and A14, and the addition of a ferrule to the spearshaft in A2, A6 and A22.

Only one grave, therefore, stands out by reason of containing a modestly larger number of finds - A8 (Fig 10), although that man had no shield boss and only one spear. Out of a total of fourteen male graves only four were without weapons, A1, A21, A24 and A27 (all south-north graves), and none were without grave goods. Of these four without weapons, A27 was a pre-excavation rescue, and only A24 appeared to have been completely undisturbed, so that one cannot discount the fact that a spearhead at a higher level in the other three graves might have been lost. The deepest grave is A6 (p 33 above) which contained a tall shield boss with linked disc rivets, a knife and two spears, one with a ferrule. These slightly superior contents, allied with the depth and the position next to the space containing two postholes, suggest comparative importance for this man.

The occupants of the north–south and west–east graves in plot III do not seem to be different in status from those in south–north graves. The women wore brooches, some of which were similar to those in plots I and II, and some similar to those in cemetery B. The only exception is the male in grave 8, who was slightly distinguished by additional grave goods.

**Cemetery B: male adult and juvenile graves**

Eleven adult male graves contained both spear and boss (Table 24), and nine contained a spear only. Of these spear-only graves, B72 and B61 had a second spear and B96 a ferrule. One grave, B27, had a boss only. One young male adult was without a weapon, B25, as were three adults identified as possibly male, B18, B78 and B84, although the grave plan drawings of these three do not suggest adult male stature (Figs 45, 50, 84). Apart from B2, a disturbed grave unquestionably male, only B23 was findless, and this also had experienced some disturbance. There was also a knife in nine graves; but a belt buckle only in two identified as possibly male graves, B18 and B84, both of which were weaponless. The buckle B94/3 is not included as it was lying under the boss, above waist level and nearly mid chest, and was probably attached to the shield rather than a belt.

As in cemetery A there was a general sameness about a man’s possessions, and there were few apart from weapons and knives. The other items were limited to: iron fragments B11/2, B20/3b, B96/2, 3 and B104/2 (Figs 20, 37, 39) bronze tweezers B35/2, pot B78/1 in a grave unquestionably male (Figs 24 and 34) and bronze-bound bucket B51/4 (Fig 35). Distinctions of rank or lineage, however, might have been indicated by the bronze disc-heads on the shield boss rivets B47/1a and B27/1a (Figs 27 and 22; Evison 1987, 34), and the decorative appliqués B51/3b and B77/2c (Figs 28 and 34). Otherwise the male graves are slightly less well furnished than the male graves in cemetery A, where three of the graves were provided with two spears each and a ferrule appeared in three graves, while in cemetery B there were only two graves with two spears and only one with a ferrule.

Out of a total of 23 definitely male adult graves, therefore, 21 were provided with weapons. Of the two definitely male graves without weapons, B23, an adult without grave goods, was disturbed, and B25 was a young adult with a knife. One grave slightly better furnished than the rest was B81 with two spears, a knife and a bronze-bound bucket. This grave was in a distinctive position on the northernmost edge of the cemetery, possibly paired with the female adolescent grave B82 beside it which was furnished with a pair of penannular brooches and a be-spangled bronze square. From their positions these two graves appear to dominate the distinctive group of people buried in plot VII.

Amongst the seven male juveniles, three who were probably adolescent were armed as if they were adult: B32 with a boss, and B79 and B106 with a spear. Four others, however, were much younger, between 10 and 12 years, and were also armed with a spear: B40, B56, B85 and B99. Grave B32, which contained a boss only, was shallow and the head disturbed, so that a spear could have been lost. As he was only about 17 years old, it is unlikely that the decorative appliqués on his shield were an indication of rank, so that they must have signified something else such as a badge of lineage.

**Table 24 Cemetery B. Male adult and juvenile graves classed according to grave goods**

<table>
<thead>
<tr>
<th>Spear and boss</th>
<th>Spear</th>
<th>Boss</th>
<th>Weapon- less</th>
<th>Findless</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>11</td>
<td>27</td>
<td>18 ?M</td>
<td>2 ?M</td>
</tr>
<tr>
<td>7</td>
<td>40 Ju</td>
<td>32 Ju</td>
<td>25</td>
<td>23</td>
</tr>
<tr>
<td>20</td>
<td>56 Ju</td>
<td></td>
<td>78 ?M</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>60</td>
<td></td>
<td>84 ?M</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>72 (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>64</td>
<td>81 (2)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>77</td>
<td>85 Ju</td>
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</tr>
<tr>
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<td>93</td>
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<td></td>
</tr>
<tr>
<td>95</td>
<td>96 (+f)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>99 Ju</td>
<td>104</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>105</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>106 ?Ju</td>
<td></td>
<td></td>
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</tbody>
</table>
Cemetery A: female adult and juvenile graves, and unsexed graves

One grave stands out as being better furnished than the others, and with different objects (Table 25). Grave A11 contained a large, square-headed brooch, two applied brooches, a bronze square with spangles, a bronze cone, amber beads and an iron ring (Fig 11). Only the last three items appeared in other graves in this cemetery, although all appeared in cemetery B. It is also one of only four graves orientated west–east, and was situated at the southern edge of the cemetery beside the male grave AS, which itself was distinguished from the rest of the graves by its containing a slightly larger number of objects. These two graves are further differentiated from the others by having children's graves adjacent, A5 and A10. The occupants of A9 and A11 were both lepers with spina bifida, and a brother and sister relationship between them was suggested in the specialist's report purely on the basis of the bone evidence.

It must be assumed that there was some sort of connection between A8 and A11 on the one hand and, on the other, between these two and the only other graves in a west–east orientation, ie A5 which cut A8, A17 and A18, although there is only a modicum of support for this from the contents. A5 contained a knife and buckle, and the occupant of A17 was a girl of 11–12 years with only amber beads. The occupant of A18 was a woman with a small long brooch, a buckle, a needle, knife and beads and the only item in common with A11, a bronze cone (Fig 15).

Also in the southern part of the cemetery was a row of reverse direction north–south graves, A3, A7 and A23, again with assorted contents, A3 containing a unique bronze mount used as a brooch (Fig 8), A7 a pair of iron annular brooches (Fig 9), and A23 a pair of saucer brooches (Fig 16), both the last two graves also containing beads and other objects. In the nine graves in this small cemetery which contained brooches, there were no less than eight varieties: large square-headed, small long, saucer, applied, disc, swastika, annular and an adapted mount. The three graves containing the small long brooches were all on the western edge of the cemetery. In all of the graves the brooches and beads were accompanied by a number of other objects.

Six people below the age of 18 were buried in cemetery A which had a total of 28 graves. Two, A3 and A17 are identified as female, A15 and A19 as probably female and two, A5 a juvenile and A10 an infant, were not sexed. None had a brooch except grave 3 with the bronze mount which had been adapted for use as a brooch. The unsexed infant in grave A10 and the probable female of 16 to 17 years in grave A19 had no possessions, but there was a knife and buckle in the unsexed grave A5, a knife in A15 and beads in A17. Graves A5 and A10 were obviously connected with the adjacent graves 8 and 11, and all the juvenile graves were distributed on the outskirts of the cemetery. None were accorded the full amount of grave goods apparently normal for an adult.

Table 25 Cemetery A. Female adult and juvenile graves classed according to grave goods.

<table>
<thead>
<tr>
<th>Brooch and beads</th>
<th>Brooch</th>
<th>Beads</th>
<th>Other finds</th>
<th>Findless</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>3 Ju</td>
<td>A17 Ju</td>
<td>A15 Ju ?F</td>
<td>A19 Ju ?F</td>
</tr>
<tr>
<td>9</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
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<td></td>
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<tr>
<td>16</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Cemetery B: female adult and juvenile graves, and unsexed graves

As in cemetery A, one grave, B74 (Figs 32 and 33) stands out from the rest because it contained a large square-headed brooch and many other objects, ie two applied saucer brooches, a buckle with long belt plate, beads including a faceted crystal, bronze ear-scoop, knife and iron rings. This grave was positioned in the centre of the cemetery near the edge of plot V. The only male grave in the vicinity with which it might be paired is B64, but the contents of this, a spear and shield, are unremarkable.

Twenty-one adult women were provided with one or more brooches, with beads and sometimes with other objects as well (Table 26). Apart from these, seven adults had a brooch or brooches without beads, and eight had beads but no brooches. Four graves

Table 26 Cemetery B. Female adult and juvenile graves classed according to grave goods.

<table>
<thead>
<tr>
<th>Brooch and beads</th>
<th>Brooch</th>
<th>Beads</th>
<th>Other finds</th>
<th>Findless</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>65 Ju</td>
<td>8</td>
<td>10</td>
<td>9 Ju</td>
</tr>
<tr>
<td>16</td>
<td>66</td>
<td>12A</td>
<td>3</td>
<td>28</td>
</tr>
<tr>
<td>29 Ju</td>
<td>67</td>
<td>26</td>
<td>13 Ju</td>
<td>44 Ju</td>
</tr>
<tr>
<td>24</td>
<td>68 Ju</td>
<td>31</td>
<td>14</td>
<td>71</td>
</tr>
<tr>
<td>34</td>
<td>73</td>
<td>46 Ju</td>
<td>17</td>
<td>101</td>
</tr>
<tr>
<td>36</td>
<td>74</td>
<td>48</td>
<td>22 Ju</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>80</td>
<td>61</td>
<td>30 Ju</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>83</td>
<td>70</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>89</td>
<td>82 Ju</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>97</td>
<td>75</td>
<td></td>
<td></td>
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<tr>
<td>57</td>
<td>98</td>
<td>76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>58 Ju</td>
<td>102</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
Table 27 Cemetery B. A group of female well-furnished graves

<table>
<thead>
<tr>
<th>Grave</th>
<th>Brooch</th>
<th>Beads</th>
<th>Buckle</th>
<th>Knife</th>
<th>Unperf coin</th>
<th>Perf coin</th>
<th>Cone</th>
<th>Square</th>
<th>Finger ring</th>
<th>Other goods</th>
</tr>
</thead>
<tbody>
<tr>
<td>B6</td>
<td>disc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B68 Ju</td>
<td>disc</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B89</td>
<td>disc</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B16</td>
<td>small long</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B29</td>
<td>annular</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B39</td>
<td>saucer</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B48</td>
<td>swastika</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B44 Ju</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B26</td>
<td>penannular</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B82</td>
<td>penannular</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

contained other objects, B10 with buckle and bronze-bound bucket, B28 with a knife, B71 with keys, iron rings and an ivory ring, and B101 with a buckle with long, horn-backed plate, bronze ring and belt mount. The last two, however, were disturbed graves and might originally also have contained brooch or beads. The only definitely adult female without grave goods was B63, as the graves B43, B54 and B86 are uncertainly sexed. It was therefore a standard custom here for women to wear brooches and beads or one or the other.

Eleven female juveniles can be identified, among whom there were four adolescents, B29 and B65 with brooches and beads, B82 with brooches and bronze square, and B30 with beads (Table 26). Younger girls between 5 and 12 years were also with possessions, B58 and B68 with brooches and beads, B46 brooches, B13 and B22 beads, B44 a perforated coin, but B9 was without grave goods. Some quite young girls, therefore, were also provided with the same possessions as an adult.

A few of the female graves contained a number of objects as well as brooches and/or beads, and these were B6, B16, B29, B39, B38 and B68. All except B6 were in plot V, and B68 was close to grave B74 with the large square-headed brooch. Three of them are the only graves which contained a bronze cone, B16/4, B39/8 and B48/5 (Figs 21, 26, 27). Two had a square bronze plate with spangles, B16/2 and B39/7 (Figs 21 and 26). The other grave with one of these square plates was B82 with only a pair of penannular brooches (Fig 35). These females may perhaps be regarded as being on a slightly higher social level than the rest. This they have in common with the women in cemetery A, whose graves are also slightly better furnished, and A11 also contained a bronze cone and square with spangles, and there was another bronze cone also in A18.

There appears to be a close connection between some well-furnished female graves which contained unperforated Roman coins, ie there were three graves which contained disc brooches decorated with ring-and-dot stamps, B6, B68 and B89 (Figs 19, 31, 36), as well as a buckle and unperforated coins, and they were also positioned in relation to each other in a line from the outside edges through the middle of the cemetery (Fig 60, Table 27), positions which might perhaps have been deliberately selected. A second set of well-furnished graves, B16, B29, B39 and B48 (Figs 21, 23, 25, 26, 27) contained a variety of brooches, some had a buckle, some a knife, one a perforated coin, some a bronze cone, some a bronze square and some a finger ring (Table 27). These graves were all near each other in plot V, and grave 39 is distinguished by being the deepest grave in cemetery B. Four other less rich graves may be connected with these because they also contained a perforated coin or bronze square, B44 and B75, B26 and B82 (Figs 26, 33, 22, 35, Table 27), the first two also in plot V, the others in plot VII.

Only one adult grave (findless) was not sexed, B90. Fifteen juveniles were buried without grave goods and could not be sexed from the bone evidence, B4, B12B, B15, B21, B33B, B37, B42, B49, B50, B59, B87, B88, B100, B103 (Table 14). In addition, three unsexed individuals were provided with some grave goods: B19 knife, B33A buckle and B69 buckle. As no buckle can be definitely located in a male grave at Beckford, it is probable that B33A and B69 were female graves.

Chronology

The chronology of these two cemeteries is clear in general but elusive as to precision of detail. The finds can almost all be allocated to the date range of c AD 475-550, with perhaps a few graves earlier or later,
but this is a fairly short time span in relation to the period covered by pagan burials in general, ie c AD 400–750. Most of the objects are common types which were in current use during the whole of the 75 years. In the male graves corrosion prevents identification of some of the spearhead types, and there are none which may be recognised as belonging to specific dates. As the shield boss types could also belong to the 5th or 6th century the male graves cannot be dated closely. With the female graves a measure of tentative dating can be attempted as some objects can be regarded as most likely to occur in the early period, phase 1, some could not have occurred before the 6th century, and the rest cannot be given a closer dating within the period AD 475–550. With reservations, therefore, the following dates are suggested: phase 1 AD 475–500, phase 2 AD 500–550. These have been indicated on the plans, Figs 57 and 62. The rest of the graves cannot be pinpointed within the range AD 475–550.

In cemetery A (Fig 57), grave 12 with its human mask disc and spiral saucer brooch (Fig 11) belongs to the first period; it is well-furnished, and its position next to the open space with two postholes is one which could well be sufficiently prestigious for the founder of a cemetery. Grave 3, containing a brooch with mask and animal ornament (Fig 8), may be nearly as early. The square-headed and applied brooches of grave 11 belong to the early 6th century (Fig 11), and although the contents of the male grave beside it, A8, are not closely datable (Fig 10), a similarity of date is likely if they were brother and sister as suggested by the bone evidence. The small long brooches are not precisely datable in the period, A16/1,2, A18/1, and A20/1, 2 (Figs 14, 15, 15). The swastika brooches, A9/1, 2 (Fig 10), and the saucer brooches A23/1, 2 (Fig 16), however, belong to the 6th century.

In cemetery B (Fig 62) the earliest graves appear to be B73 (button brooch, Fig 32) and B67, B24, B57 and B102 (applied brooches, Figs 31, 22, 29, 38), so that both cemeteries appear to have been started in the 5th century. Some, or all, of the disc brooches could also belong to the 5th century. Of these graves allocated to the earliest phase of the cemetery, six are on the periphery of the tumulus and two near the centre. Four are in plot IV, one in plot VII, and one in plot VIII. This suggests that the tumulus was the most attractive area as a burial site, but that other plots, IV, VII and VIII, were started at the same time.

The latest graves are indicated by the square-headed brooches B74/3 and B70/1, 2 (Figs 33, 32), by the saucer brooches B38/3, B46/1, 2 and B66/2, 3 (Figs 25, 26, 30), applied saucer brooches B8/2, B31/1, B55/1,2 and B39/1 (Figs 20, 23, 38), swastika brooches B48/3,4 and 380/1 (Figs 27, 34), and a brooch from reused material B12/1 (Fig 20). These few probable dates are indicated on the distribution map (Fig 62).

Such dating means as there are suggest that in cemetery B the earliest graves were on the tumulus plot V, on plot VII and plot IV. Graves of no specific dating and of the later phase appear throughout, so that there was no use of plots in sequence, rather a continued use of each plot as would be suitable for a group such as a family or household. Evidence for the settlement of the Avon valley before the 6th century (Cook 1958, 80) is therefore substantially reinforced by the finds at Beckford, but both cemetery A and B went out of use in the middle of the 6th century.

Conclusions
The name of the village of Beckford denotes the existence of a crossing of the Carrant Brook in the vicinity in the Anglo-Saxon period. The evidence of early settlement provided by the cemeteries is confirmed by the place-name itself which is derived from a personal name Becca recorded only in the poem Widsith (Smith 1964, 43). It is situated on the western edge of the Anglo-Saxon settlement area of the 6th century which was divided from British territory by the river Severn. The two cemeteries were actually situated in the parish of Conderton, but were nearer to the village of Beckford to the east than to Conderton to the north. The first element of the place-name Conderton has been connected with Old English Cuntware = 'the inhabitants of Kent', or Welsh cant = edge, border, enclosure, and cant = host (Smith 1956, 80). There is very little indication of the presence of people from Kent, however, except for a pair of brooches, B70/1,2, and a Frankish type of buckle common in Kent, B1/2. A reference to the position of the settlement on the border between the Anglo-Saxons and the Celts would seem to be more reasonable. From later records it is known that the inhabitants of the area were known as the Hwicce (Smith 1965), and their first Anglo-Saxon bishop arrived at Worcester c AD 680.

Beckford is some miles from the Roman road between Gloucester to Worcester to the west, and even further from the road between Cirencester and Alcester to the east. It was therefore a rather isolated settlement on the edge of Anglo-Saxon territory, and its lack of communication with other Anglo-Saxon kingdoms and with the Continent is reflected in the lack of variety in the grave goods. Its connections are almost exclusively with the West Saxons of the upper Thames valley, the only trace of Anglian influence being possibly the featureless annular brooches, the swastika brooches, and one florid cruciform brooch said to have been found near Beckford (below p.). In this the Beckford cemeteries differ from others further up the Avon valley, such as Baginton and Bidford-on-Avon, where the grave goods included cruciform brooches, girdle hangers and wrist-clasps, which are items of Anglian origin.

Anglo-Saxon cemeteries in this area were discussed in connection with the Broadway cemetery which was situated on higher land a few miles to the east (Cook 1958). With few exceptions they are in the valley of the Avon, with higher land separating them from the cemeteries in the upper Thames valley. The
finds from the eight graves and some unassociated finds from Broadway were very similar to those from Beckford. A starting date probably slightly earlier in the 5th century is indicated by the dolphin buckle and saucer brooches with swastika legs and egg-and-tongue motifs. The running spiral saucer brooches with wide, plain border in Beckford and Broadway are closely comparable (Al12/1 Fig 11; Cook 1958, Fig 9.13, pl XI, b). There were two low shield bosses and also a sword at Broadway. A square-headed brooch and large, applied brooch also occurred, the one pin is of similar size to those at Beckford with perforated, decorated head, and a strap end is formed of a folded plate with near rectangular shape as Beckford B6/7 (Fig 18; Cook 1958, Fig 8.8). There are also finger rings (Cook 1958, Fig 7, 5–7, pl XII).

Few Anglo-Saxon cemeteries are recorded in the vicinity. To the north was a cemetery in use during the 6th century at Upton Snodsbury near Worcester with comparable saucer and small long brooches and faceted crystal beads. One ornate cruciform brooch, however, indicates continuance to a later date (Smith 1901, 228, Figs 4–9; Meaney 1964, 281). Two burials found under Worcester cathedral could be assigned to the Anglo-Saxon period on the evidence of radiocarbon dating and gold thread (Barker et al. 1974; Bassett 1989, 264, note 107). To the west was another 6th-century cemetery at Norton-by-Bredon (Meaney 1964, 280). About 1976 a load of gravel delivered to a Mr Judge of Ashton-under-Hill contained two applied brooch backplates and fragments of an ornate cruciform brooch of the west Midland type from Duston, Northants (Leeds 1936, 83, Fig 16, pl XXII, d; Almonry Museum, Evesham). The load is said to have come from near Beckford. At Evesham on the Fairfield Housing Estate a cemetery was discovered with brooches, disc, annular and saucer, and other objects (Bayliss 1954). Information on Anglo-Saxon settlements is sparse in this area, but a recent excavation less than a mile to the west of Beckford B6/7 (Fig 18; Cook 1958, Fig 8.8) showed there were no traces on the ground, but the proposition is given substance by the pattern of tumuli in the area. Cropmarks of several tumuli have been noted north of the Carrant Brook (Fig 1c above; Dinn and Evans 1990, 23–5, Fig 20; Fig 18 below, B6/8; Cook 1958, Fig 7, 2–4).

The sites of the Anglo-Saxon cemeteries Beckford A and B were apparently determined by prehistoric barrows positioned just above the 100ft contour north of the Carrant Brook and equidistant from it. The previous existence of these monuments was deduced from the configuration of the grave plots for there were no traces on the ground, but the proposition is given substance by the pattern of tumuli in the area. Cropmarks of several tumuli have been noted north of the Carrant Brook (Fig 1c above), west of Crashmore Lane (RCHM S093 NR44) and west of the Immet Brook (Dinn and Evans 1990, Fig 4; Webster 1964, Fig 5 no 3). Moreover another ring ditch to the west of Immet Brook has recently been excavated (Dinn and Evans 1990, Fig 4), and there are cropmarks of others in that area (Dinn and Evans 1990, Fig 23). Traces of the Beckford ring ditches had presumably been removed by ploughing. The ditch at the Buckland Estate at Dover was narrow compared with the diameter of the ring because the top part of the ditch had been removed, and at Beckford the rings had no doubt been removed altogether. Such annihilation by ploughing or erosion may be the reason why an investigation of one ring crop mark in the area produced no results (Dinn and Evans 1990, 14).

These two cemeteries at Beckford seem to have been in use at much the same time, and there does not seem to be sufficient distance between them to indicate that they belonged to two entirely separate settlements. Cemetery A, however, was unusual in containing graves of two or three probable lepers, A8, A11 and A22. The two individuals in A8 and A11 also had spina bifida, as did the girl in nearby grave A3 and the two young women in graves A19 and A20. The number of non-adult deaths was comparatively high, all of which suggests a closely inbred group. It appears from the grave contents that the two lepers (?brother and sister) in A8 and A11 were probably the leading members of this family or group which was buried in a separate cemetery. Segregation, therefore, by the establishment of a separate cemetery for a group inflicted by leprosy would seem to be a valid reason for this second site, although any leprosy in cemetery B could not have been recognised because of the decomposed state of the bones.

Individual plots in both cemeteries could be detected by the layout of the graves (pp 27, 31–33 above), and the contents of the graves show some differences accompanying these divisions. In cemetery A, where three isolated graves form plot I, the woman's grave A16 contained two small long brooches but did not differ from women's graves in plot II. In plot II there were well-furnished male and female graves, all orientated south–north in fairly regular rows. Two shield bosses out of five were of the tall variety. Plot III, however, differed in the orientation of the graves which were in reverse directions, west–east and north–south, with one infant exception south–north, and the only male grave differed from all the weapon graves in plot II as it contained no boss. Possible leprosy and spina bifida, however, occurred in both plot II and plot III.

In a part of cemetery A, plot II, where the graves were regularly spaced in rows, there was an empty space between graves A6 and A12 (Fig 2). In this there were two postholes, presumably for some kind of marker or ritual structure. The woman in grave A12 possessed some of the earliest jewellery in the cemetery, and the position suggests that she might have been one of the founders. Grave A6 was the deepest in the cemetery and the man in it was the best equipped, with a tall shield boss and joined disc rivets and two spears, one with a ferrule, so that these two graves form a credible founder pair.

Perhaps the most distinctive of the plots in cemetery B is plot VII. This was an oval plot which contained three of the four cremations, while the
women's inhumation graves were together and the men and children on the outside. Graves B72 and B81 were the only two in the cemetery with two spears, a trait they held in common with cemetery A. The position of graves 81 and 82 together at the north end of the cemetery seems to be a dominant one. One grave contained a swastika brooch, while only one other grave in cemetery A and one in cemetery B had a pair of these. Apart from one applied brooch in B57 the brooch pairs in the remaining three graves were annular and penannular, matched only by one pair in cemetery A and one pair in cemetery B. Two graves contained a be-spangled bronze square, but on its own and not accompanied by a bronze cone as it was elsewhere, in A11 and in plot V graves B16 and B39. Beads were neither plentiful nor varied, one amber bead only in graves B41 and B80, sixteen in B76, and some amber and drawn glass beads in B57 and B58.

In contrast, plot V had the highest number of graves and the largest number of women and children. Three of the tall shield bosses were found in plot V, with one each in plots I and II, but none elsewhere. The accompanying joined rivets accentuate the difference indicated by the tall bosses, and suggest that the whole shield was a mark of the relative importance of their male owners. More brooches and beads were found here than in the other plots. Two of the three graves with the largest number of beads were here, ie B29 with 119 and B39 with 252.

Plot IV is limited on the west side by a straight line boundary, and although the plan shows the graves adhering closely to that line and becoming more irregularly spaced to the east, the spread does not appear to have been in a west–east direction for some of the earliest graves, apart from B102, were on the east and south edges, B89, B97 and B45, and later graves B46 and B98 were near the western limit. The male graves were undistinguished, with no tall bosses or two-spear graves. The women's graves contained three pairs of disc brooches, saucer and applied saucer brooches, but no small long or other variety of brooch. The small plot III includes one well-furnished female grave whose small long brooches connect with plot V rather than plot IV, and in plots I and II the tall bosses also relate to plot V rather than plot IV. The small plot VIII is related to plot IV and V by its disc brooches.

Grave B8 is distanced from plots V, VI, VII and VIII so that it does not obviously belong to any of them. It is the only grave which contains one saucer brooch and one applied saucer brooch. There are no beads, but there was a bronze pin of an unusual form. Add to this the fact that the grave orientation of 25° puts it right at the limit of the orientation of the south–north graves, particularly distinguishing it from the surrounding graves (Table 21), and it seems that this grave must be treated as one apart from the rest. Its saucer and applied saucer brooch, however, are types found in plot V.

The site, therefore, appears to have been a complex one. There were no traces remaining in 1958 of any earlier human activity which might have attracted the Anglo-Saxons to this particular spot. The circular arrangement of plot V, however, compared with the occurrence of ring ditches in similar positions in relation to the Carrant Brook, determine the presence in the late 5th century of visible traces of a tumulus. It is possible that there were also other historical traces visible which determined the positioning of the other plots. The richest and most numerous group chose to be buried on the tumulus, plot V, while a smaller group, differentiated both by custom and possessions, occupied a site to the north, plot VII. Other plots may be distinguished by certain characteristics, plots I and II consisting mainly of armed men, plots III and IV being comparatively undistinguished, but plots VI and VIII, at the north-west edge, containing the only two reverse direction graves.

As both cemeteries are incomplete, accurate comparison is not possible, but such data as there are have some significance. Common to each cemetery was one type of large square-headed brooch, suggesting similar women of higher rank. Also in common were small long, saucer, applied, swastika and annular brooches and a brooch made from a mount. Only in cemetery B were there small square-headed brooches, a button brooch, applied saucer brooches, a large number of disc brooches and some penannular brooches. Most of the brooches were circular types which suggest Saxon origins, the small square-headed brooches bearing witness to connections with Kent or the south of the country and the small long to the Cambridge area. The seventeen disc brooches form the greatest number of any one type, with the saucer and applied-saucer coming next, all establishing connections with the upper Thames area. It is noticeable that there are no foreign brooches at all, and the only brooches from far afield in England are the two square-headed brooches from Kent. There are no Anglian types such as the cruciform and annular brooches of Sewerby, Yorks (Hirst 1985, Fig 37.G.15 et seq).

There were twelve female graves in cemetery A, and nine of these had brooches, ie 75%. Although there was equality in that one woman possessed a great square-headed brooch in each cemetery, in cemetery B out of 55 female graves only 34 had brooches, ie c 62%. In plot V the proportion is slightly higher as 20 graves out of 30 had brooches. Almost all of the male graves in both cemeteries contained arms, but the occurrence of a second spear or a ferrule was more frequent in proportion to the number of graves in cemetery A. The people of cemetery A, therefore, appear to have been slightly richer, and closely connected to the people of plot V in cemetery B.

As to the possible presence of Romano-Britons, the contents of the Beckford cemeteries show practically no sign of contact with Romano-British culture apart from a few Roman coins and the bowls of two Roman spoons. There are none of the signs which occurred at Great Chesterford of probable burials of Romano-
Britons such as some men without grave goods, a number of men without weapons but with other grave goods, some of these being Romano-British types such as a razor and a Charon coin. Some of these were also west-east burials, and may have been Romano-British or Frankish Christians (Evison 1994).

In cemetery A only one undisturbed male grave was without weapons, A24, and in cemetery B one grave, B25. The contents of the graves, a knife each, give no positive proof that these may have been Romano-Britons, and while from the grave plans the young adult in B25 does not seem to have been of any great stature, the man aged 25–35 in A24 appears to have been quite tall.

The possibility of the influence of Christianity must be considered in connection with the four graves which were orientated west–east, A8, A11, A17 and A18. None of these contained any objects connected with the Romano-British culture. As to stature, A8 was 182cm tall, A17 was a child of 11–12, and the grave plans suggest that the woman in A11 was tall, like her brother, but the woman in A18 was quite small. Save for the orientation, therefore, these graves are indistinguishable from those in the rest of the cemetery. Nevertheless, Christian customs in this area in the 6th century may well have been followed although the arrival of the first Anglo-Saxon bishop of the Hwicce at Worcester was not until c AD 680. St Helen's church at Worcester appears to have been of Roman or British origin, and the defended town at the time of the Beckford Anglo-Saxon cemeteries would have been an important Christian centre (Bassett 1989). It therefore seems quite possible that a brother and sister, lepers of considerable social standing, as well as another woman and related children, were buried in a west–east direction because of Christian beliefs.

Although the two cemeteries were incomplete the excavated areas were sufficient to indicate the probable area originally covered by the burials. If cemetery A had extended to the east to complete a circle with a similar density of graves, the total number would have been about double, ie a total of c 56 graves. If the outline of cemetery B had extended slightly to the north-west to complete an oval shape, there would have been only a few more grave ie a total of about 115.

As there were 140 traceable deaths in about 75 years the settlement was a substantial one. It is not likely that there were many Anglo-Saxons living in the Avon valley earlier than the date of these cemeteries, but it is certain that the local settlements continued into the 7th century, when there is evidence of wealth from the 7th-century gold connected pins found at Little Hampton, Worcs, just south of Evesham (Brown 1915, III pl LXXXI, l). The Beckford cemeteries, however, went out of use in the middle of the 6th century, and the reason for this is not apparent.

Addendum

Regarding the K-type button brooch B73/1 (p. 8, Fig 32, PI IVc), the mask on the brooch A3/1 with similarities to B misc and I ii types (p 10, Fig 8, PI IIIc) and the disc A12/6 with similarities to types B misc, I, J and K (p 21, Fig 11, PI IIIId) important evidence regarding the date and origin of the series I, J and K of the button brooches is now available from a well-furnished female grave of the middle of the 5th century at Beelen, near Warendorf (Avent and Evison 1982, pp 92–102; B Trier, Berich über die Tätigkeit des Westfälischen Museums für Archäologie – Amt für Bodendenkmalpflege im Jahre 1992, Jahresbericht für 1992, 3–38, see p 56; C Grunewald, Das frühgeschichtlich-Sächsische Graberfeld von Beelen und weitere Ausgrabungen 1991 und 1992, Warendorfer Schriften Band 21–24, 1991–1994, 221–237, see pp 231–233). The grave contained a Roman jug, a glass cone beaker and five brooches. One of these was an applied brooch with a gold front plate. The plate is not in good condition, but it appears to have a border of animal ornament. The inner circular panel is about 3cm in diameter, and contains a human mask with vertical hair lines which doubles as a pair of facing profile masks, and below the chin in undecipherable ornament, probably animals as on the disc from Mitcham, Surrey and button brooches of the J series (Avent and Evison 1982, pl XIXe and pl XVII).

The button brooch types I, J and K are larger than the other types (Avent and Evison 1982, 118, Table 1), similar in size to early saucer brooches and mostly found in the Thames valley (Avent and Evison 1982, Figs 8–10). It was proposed in 182 that the J type was the earliest mask button brooch, beginning in the first half of the 5th century, as it retained details of earlier animal pairs below the mask, and that types I and K developed from type J. There are no continental button brooches from which these could have derived, but there were mask designs on applied brooches, eg the base of an applied brooch with mask design found in a 4th-century context at Immer, Ganderkesee (Evison 1978, 98, Figs 3 and 4). This gold brooch at Beelen is an applied brooch with a mask-and-animals centre very close in size and design to the type J button brooch, and its mid 5th-century context supports the early dating of types I, J and K.
4 Specialist reports

Human Burials
Calvin Wells

Cemetery A

Introduction

The condition of the bones from cemetery A is far from good, but at least they survive moderately intact or partly reconstructable. They are almost all damaged but some have sustained only slight surface decomposition and fragmentation, whilst a very few of the bodies are nearly complete. By contrast the cemetery B remains can only be described as catastrophically damaged by post-inhumation soil erosion. The result of these eroding factors is a series of 106 burials, every one of which is grossly defective. Not a single skull survives intact. Normally the mandible may be considered amongst the toughest of bones, but here again, not one survives undamaged. Even the teeth, by far the most resistant skeletal elements, are often severely affected by post-mortem decay in this group.

Inevitably the amount of information that can be obtained from these bodies is much restricted. In the cemetery A series a few anthropometric observations are possible though their numbers are too scanty to serve as a basis of any statistical analysis. For the cemetery B series almost no measurements can be taken. The bodies are without exception so fragmented, eroded or otherwise deficient that little can be said about them apart from a few sporadic observations of such anomalies and pathology as may still be recognisable. Even in this respect the tally is a slender one. For example, in only three bodies can any trace of osteoarthritis or osteophytosis be detected. To anyone well acquainted with Anglo-Saxon inhumations this is a hardly credible figure: in most groups of that period it is the commonest abnormality, and may, as at Red Castle, Thetford, affect nearly the entire adult population (Wells 1967).

This report is, therefore, divided into two sections. The first deals with cemetery A and contains notes, however brief, on each burial in addition to such measurements as seem useful or are available. The second deals with cemetery B but makes no attempt to give a detailed description of each inhumation because a mere catalogue of surviving identifiable fragments would here be of negligible value. Instead, details are only given where there is some anomaly or other item of interest. In addition to this a few comments are offered about the vital statistics of the group as a whole in so far as these can be broadly discerned. A somewhat more extensive account of this population, containing a brief indication of the surviving extent of each burial, has been deposited with the Inspectorate of Ancient Monuments where it may be consulted.

Methods

The measurements, method of measurement, and coding follow those of Morant (1923) except for a few minor modifications. These are the following: in the appendices recording individual measurements and indices Morant's two categories of doubt '?' and '?' have been merged in one and recorded as '. His category of presumed inaccuracy '[' ] has been omitted. Where the nasion cannot be determined as the point of juncture of the inter-nasal and fronto-nasal sutures, owing to loss of the nasal bones, it has been taken as the highest point on the fronto-nasal suture. This may or may not lie in the median sagittal plane. Nasal and orbital heights and orbital breadth are taken on the right side, if available, whenever they cannot be taken on the left. Measurements of limb bones have been taken according to the method of Trevor (1955). Estimation of stature follows the formulae of Trotter and Gleser (1958 for males; 1952 for females).

Notes on the burials from cemetery A

Inhumation A1
Male. 30-40.
This body has been extensively damaged by soil erosion though fragments from most parts of the body can be identified. Present are:

- About 30 fragments of cranial vault, 15 of cranial base and face; 4 of mandible.

Teeth. 7

All vertebrae are present but most are very defective. Sacrum; 6 fragments of innominate. Sternum. L and R scapula and clavicle. About 60 pieces of ribs. L and R humerus, ulna and radius. L and R carpus; 8 metacarpals. L and R femur, tibia, fibula, patella and complete tarsus and metatarsus. 22 phalanges.

The following measurements were taken –

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</table>
Wells, 1964a). The adjacent areas of osteitis, although else to support such a diagnosis and much to oppose it (cf which would justify interpreting this as a deliberately and medially from the external surface of the skull but is again well healed. Pathology

The maxillary L. M1 and M3 had been lost antemortem and there was evidence of paradontal abscess cavities having been associated with them. Some degree of osteoarthritis was present. It affected the lateral end of both clavicles, the heads of about 6 ribs, the costal facets on the bodies and transverse processes of 4 or 5 vertebrae and 3 metatarsal-phalangeal joints. Osteophytic lipping of the bodies of several vertebrae was also identifiable in the cervical, thoracic and lumbar regions of the spine. But all these pathological changes are difficult to assess owing to the fragmented and eroded state of the bones. Two damaged toe phalanges appear to have had small fractures with negligible displacement followed by sound healing. *Cibra orbitalia* is present in the L orbit.

Inhumation A2


Identifiable from this body are:

- About 20 fragments of cranial vault, 16 of base and face, 2 of mandible. Surviving teeth: 11, 4C, 5P, 9M. Attrition heavy; no caries. Vertebræ: 6 cervical, 11 thoracic, 5 lumbar. 10 fragments of pelvis, 40 of rib, 12 of scapula. L and R clavicle, humerus, ulna and radius. A few bones of hands. L and R femur, tibia, fibula; R patella; the R tarsus and a few other bones of feet.

Both tibiae have a squattting facet at the distal articular surface.

The skull, which is metopic, is of great interest. In the R frontal bone, immediately above the orbit, is an elliptical hole in the bone which measures 37.4 by 27.2mm (PI VI a, b). The entire thickness of the skull is involved and the margins of the opening are well healed. Clearly it is important to establish the cause of this condition and especially, from the cultural point of view, whether or not it is due to deliberate trephination.

Defects of this kind in the cranial vault may be due to various classes of lesion, such as congenital anomalies, wounds, infections, erosion by tumours, haemopoietic diseases or osseous dysplasias. Here the upper margin of the hole is smoothly rounded but along the medial margin there is a slightly raised and everted ridge of bone which in parts has a sharp edge. This is not due to lack of healing; it is a low, secondary outgrowth akin to a reactionary osteophyte.

The lower part of the lateral margin is bevelled inwards and mediially from the external surface of the skull but is again well healed. On the endocranial surface of the orbital roof (which is somewhat defective owing to post-inhumation erosion) there is evidence of a low-grade osteitis. The healing of the medial edge of this hole has encroached on, and largely obliterated, the right half of the frontal sinus.

It is so easy and so common to make the dramatic diagnosis of trephination when confronted by cranial perforations of this kind that it cannot be too emphatically refuted in the present instance. There is nothing here which would justify interpreting this as a deliberately contrived operation. The slight eversion and bevelling of the medial margin might suggest the result of an expansive tumour eroding the bone in this region but there is little else to support such a diagnosis and much to oppose it (cf Wells, 1964a). The adjacent areas of osteitis, although small in extent, are enough to indicate that some infection was present although there is nothing to suggest that the lesion was primarily of an infectious nature.

It appears, in fact, to be traumatic. The most likely cause for this orifice is that the frontal bone was opened by a wound from a sharp instrument that cut obliquely across it removing a small ellipse of tissue. There may have been some fracturing of the margins of the wound which led to slightly different patterns of repair in different arcs of the periphery. An alternative might be that a small blunt instrument — a hammer head or even a pebble — produced a depressed fracture from which a central disc of necrotic bone eventually separated. This seems less likely than a cut from a sharp weapon and a further item of evidence which may clinch the diagnosis can be seen in the middle of the supra-orbital margin. Here a small 'nick', just below the infero-lateral corner of the frontal defect and extending up into it, shows where a sharp instrument had cut into the bone. It extends to a depth of about 12mm leaving a well healed scar which can be clearly seen in the roof of the orbit and also on the endocranial surface of the orbital plate (PI VIIb).

Inhumation A3

Child. 7-8 years.

A much damaged skeleton. The following bones were identifiable:

- About 24 fragments of cranium, including the damaged maxilla and mandible.
- About 20 fragments of cranium, including the damaged maxilla and mandible.
- Teeth: 7654321, 1234567.
- Attrition light. No caries.
- 20 fragments of vertebrae, 8 of pelvis, 36 of rib. L and R clavicle and scapula. L and R humerus, femur and tibia, 17 fragments of other long bones; and 20 of other post-cranial bones. There is spina bifida of the 1st sacral segment.

Inhumation A5

Child. 6-7 years.

Much damaged. Surviving are:

- About 25 fragments of cranial vault, 12 of base and face; a damaged mandible. About 45 fragments of vertebrae, 8 of pelvis, 44 of ribs. L and R clavicle and scapula. L and R humerus, femur and tibia. About 60 other small fragments.

Inhumation A6

Male. 25-35.

A moderately well preserved skeleton. Surviving are:

- A damaged skull. This is ovoid in norma verticalis. The frontal bone rises steeply from poorly developed brow ridges and passes back in a smooth curve to a well rounded occiput. The mastoid processes are craggy. The dental arcade is parabolic.
- Teeth: 7654300, 0234567, 7654321, 1234567.
Attrition light; no caries.
Numerous vertebral and pelvic fragments are present also the L and R humerus, ulna, radius, femur,ibia, fibula and clavicle. The small bones of the hands and feet are almost complete, apart from many missing phalanges.

The following measurements were taken on long bones:

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<tr>
<td>Cnemic Index</td>
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Stature = 1678.9mm (5ft 6in). Squatting facets are absent from both tibiae.
There is a moderate degree of hallux valgus in both feet (PI VIc).

Inhumation A7
Female. 25–40.
A much damaged skeleton. Surviving are:
About 20 fragments of cranial vault, 12 of base and face, 3 maxillary molars. A mandible, damaged but with complete dentition. Dental attrition heavy but no caries.
Some fragments of vertebrae and ribs, L and R innominate, humerus, ulna, radius and metacarpalia. L and R femur,ibia, fibula, patella, tarsalia and metatarsalia.
Most of these bones are damaged.
The skull is metopic.
Both tibiae have a small squatting facet at the distal articular surface.

Inhumation A8
Male. 25–35.
A very well preserved skeleton of a strongly built man. The following bones survive:
Cranium. This is heavily built. It is an asymmetrical ovoid in norma verticalis. The frontal bone rises somewhat obliquely from a full glabella and moderately strong brow ridges to pass back through a smoothly curved vertex to a well rounded occiput. There is some low sagittal keel in both the frontal and parietal segments. The areas of attachment of the nuchal musculature are strongly developed. The mastoids are large and craggy. The glenoid fossae are deep. The orbits are broadly trapezoidal with large supra-orbital notches. The piriform aperture is asymmetrical, its inferior margin moderately sharp. The palate is deep, the dental arcade parabolic. The mandible is heavily built, deep in the body, with strong eversion of the gonial angles and a broad, square mental region.

Teeth. 87654321 | 12345678
87654320 | 00345678

Attrition of the teeth is moderately heavy; caries absent.
The cranial sutures are unfused. There is a small wormian bone at the lambda and four others in the R lambdoid suture; also an epiptric bone at each pterion.
Post-cranial bones present include:
All vertebrae, sacrum, L and R innominate, 46 fragments of rib, sternum, L and R clavicle, humerus, ulna and radius; 9 carpals, 6 metacarpals, 18 phalanges of fingers. L and R femur, patella,ibia, fibula, talus and calcis. The R navicular, cuboid and 1st cuneiform, and the 2nd, 4th and 5th metatarsals; and the L 5th metatarsal.
The following measurements of long bones were taken:

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Stature = 1826.1mm (5ft 11½in).
Both tibiae have a small squatting facet at the ankle joint. Small outgrowths of osteophytic lipping are present on the bodies of all the lumbar vertebrae. The 6th lumbar vertebra has a detached left half of its neural arch and inferior articular facet, a developmental anomaly (PI VI d).
Its R inferior facet is normal. Schmorl's nodes of various sizes are present on the upper surfaces of the bodies of Ts to L4 vertebrae, inclusive; and on the lower surfaces of T7 to T11.

Both tibiae and fibulae show evidence of severe periostitis through out the shaft. There is also some osteitic and periostitic change in both tarsalia. The surviving metatarsals are grossly deformed with chronic osteitic changes and erosion of their heads. All phalanges have disappeared. These changes in the legs and feet are those typical of leprosy and it seems highly probable that this is a true case of that disease and if so that it is one of the earliest to survive from antiquity (Wells, 1962a). Our extensive knowledge of leprosy in early skeletons does not begin before the many 14th–15th century specimens described by Møller-Christensen (1953; 1961).

Inhumation A9
Female. 25–30.
This body is in poor condition. Surviving are:
About 25 fragments of cranial vault, 8 of base and face: the jaws are nearly complete.

Teeth. 77654321 | 12345678
87654320 | 00345678

Attrition of the teeth is light; caries absent.
Post-cranial bones include: 6 cervical vertebrae, 10 thoracic, and 8 lumbar fragments. Small fragments of pelvis. L and R humerus, ulna and radius; femur, patella,ibia and fibula, but all these bones are damaged. The small bones of the feet are nearly complete apart from some missing phalanges.
Each tibia has a small squatting facet at the ankle.

Inhumation A10
Young infant.
This much disintegrated body consists of about 100 tiny fragments of cranium, including a few fragments of developing tooth crowns.
Post-cranial remains are: R radius, both femora and about 20 other small fragments.

Inhumation A11
The following bones survive:
Cranium. This is a lightly built skull. It is pentagonoid in norma verticalis. The frontal bone rises rather steeply from negligible brow ridges to a high vertex which passes back in a smooth curve to the mid-parietal region. Posterior to this the sagittal profile dips flatly towards the opisthocranion, the occiput then rounding sharply to a slightly sinuous nuchal plane. The mastoid processes are of medium build. The orbits are rectangular with sharp margins. Both zygomatic arches and the R maxilla are defective. The palate and dental arcade are U-shaped. The mandible is of medium build with some eversion of the gonial angles. The mental region is prominently rounded.

Teeth. 8 7 6 5 4 0 0 1 1 0 3 4 5 6 7 8

Dental attrition is moderate; caries absent.

Post-cranial remains include:
All vertebrae, sacrum and innominate fragments. Sternum; 53 rib fragments. L and R scapula, clavicle, femur, patella, tubia, fibula and talus. L humerus, ulna and radius. A few fragments of hand and foot bones. Both tibiae have a small squattting facet at the ankle. The L3 vertebra has a transverse process on the left but not on the right; L4 has a posterior flange on its L inferior articular process; L6 has a detached R half of its neural arch and a large accessory facet for articulation with the Lala of the sacrum. The sacrum has a large facet on the left for articulation with the L6 vertebra and also a small, perhaps non-functional, one on the right. There is also a large accessory articular facet on the Lala. It shows spina bifida of the 1st and 2nd segments. Above the R sacro-iliac surface is a separate small facet which articulates with a corresponding facet on the R inominate.

There is extensive post-inhumation erosion of the tibiae and fibulae and of the phalanges of hands and feet. This is unfortunate because it masks what appears to be some degree of intra-vitam osteitis of these bones. If we were possible to be sure of this it would suggest at least the possibility of this being another case of leprosy. In which case the partly similar vertebral anomalies might suggest that we are here dealing with a brother and sister, one of whom contracted the disease from the other. Unfortunately the degree of soil erosion here prohibits certainty of diagnosis.

Inhumation A12

?Female. 25–35.
A poorly preserved skeleton. Surviving are:
About 20 fragments of cranial vault; 8 of base and face; the mandible.

Teeth. 8 7 6 5 4 0 0 1 1 0 3 4 5 6 7 8

From the maxilla 4 molars, 4 premolars and 1 canine survived loose.

Attrition is light; caries absent. Surviving post-cranial bones include:
About 15 fragments of vertebrae; 8 of pelvis; 6 of scapulae. The R humerus and femur; the L and R radius, talus, calcaneus, navicular and cuboid. About 3 dozen other damaged fragments.
Both humeri have a supratrochlear foramen.

Inhumation A13

Male. 35–45.
A moderately well preserved body apart from the extensively damaged skull. Surviving are:
A calva and about 20 fragments of base and face. This is a voluminous skull, ellipsoid in norma verticalis. The frontal bone rises steeply from moderately prominent brow ridges; it is slightly bulbous at the level of metopion. Thereafter it passes back in a smooth curve which continues through the vertex and occiput. Areas of attachment of nuchal muscles are of medium development. Mastoid processes are medium. The facial skeleton and part of the cranial base are deficient and unsuitable for reconstruction. The mandible is of medium build but the mental region is strongly projecting and very square.

Teeth. 2 7 0 5 4 3 0 0 0 0 3 4 5 6 7 8

Attrition is gross; caries absent. There is a paradental abcess round the root of the maxillary R PML and another round the R M1.

Post-cranial remains surviving include:
All vertebrae, sacrum and pelvis (mostly damaged). About 60 fragments of rib; 12 of scapula. L and R clavicle, humerus, ulna, radius, L carpus. All metacarpals. L and R femur, patella, tubia, fibula, tarsalia and metatarsalia and 34 phalanges.

Squatting facets are absent from both tibiae.

Inhumation A14

Male. 28–35.
This is a much fragmented and defective skeleton. Surviving are:
About 12 eroded fragments of cranium; a damaged mandible. The following loose teeth are present, 51, 31, 61 and 91.
Attrition is gross; caries appears to be absent but there is much post-inhumation decay.
Post-cranial remains include:
L and R humerus, ulna, radius, femur, tubia and fibula (all much damaged) and about 20 other disintegrating fragments.

The following measurements were taken:

<table>
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<tr>
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<td>70.55</td>
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Stature = 1762.8mm (5ft 9½in)

Pathology

An area of osteitis (c 10 x 3mm) with raised margins and a rough floor is present on the anterior surface of the R femur about 90mm distal to the lesser trochanter. It is impossible to be certain as to the cause of this lesion but it may well be the result of an earlier perforating wound which was associated with a low grade infection (PI VI e).

Inhumation A15

Child. ?Female. 8 years.
A much fragmentated skeleton. The following bones survive:
About 45 small fragments of cranial vault, 16 of cranial base and face. A damaged mandible.

Fragments of 23 vertebrae; 5 fragments of pelvis, 30 of
ribs. L and R scapula and clavicle. L and R humerus, ulna, radius, femur, tibia and fibula.
About 70 other small post-cranial pieces.

**Inhumation A16**

Male. 19-20.
A fairly well preserved skeleton. The following bones survive:
Cranium. This is broken into a couple of dozen fragments but it can be partly reconstructed to give a few measurements. It is a lightly built skull, ovoid in norma verticalis. The frontal bone rises steeply from very low brow ridges. The occiput is rather sharply rounded with a small tuber occipitale. Muscle markings tend to be weak. The mastoid processes, though not stout, are long and firm. The zygomatic arches are flaring and well developed. The orbits are high, rectangular and obliquely set. The palate and dental arcade are parabolic. The mandible is stoutly built.

Surviving loose maxillary teeth: 21, 2C, 3P and 5M. Attrition is heavy; caries absent.

**Post-cranial remains:**
About 20 fragments of vertebrae, 6 of pelvis, 30 of ribs. R clavicle, L and R humerus, femur, talus and calcis; L tibia. About 40 other small post-cranial fragments. The following measurements were taken:

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<td>Cnemic Index</td>
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<td>86.06</td>
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</table>

Stature = 1608.0mm (5ft 3 in)
A squatting facet is present on each tibia at the ankle joint.

Pathology
An irregularity of a distal hallucial phalange appears to indicate the site of a well healed fracture.

**Inhumation A17**

Probably male. Child. 11-12.
This is a somewhat defective skeleton. Present are:
About 20 fragments of cranial vault and 5 of mandible.
Permanent teeth, 6I, 4C, 6P and 6M. Attrition light; no caries.

**Post-cranial bones:**
23 vertebrae (defective); pelvis; 39 rib fragments. L and R clavicle, humerus, ulna, radius, femur, tibia, fibula, talus and calcis. About 30 other post-cranial remains. A squatting facet is present on the R tibia at the ankle joint and on each talus.

**Inhumation A18**

Female. 25-30.
A somewhat fragmented and eroded skeleton. Present are:
About 15 fragments of cranial vault, 6 of base and face; the mandible.

Surviving loose maxillary teeth: 21, 2C, 3P and 5M. Attrition is heavy; caries absent.

**Post-cranial remains:**
About 15 fragments of cranial vault, 6 of base and face; the mandible.
can be seen and it appears to be a developmental synostosis.

The L3, L4 and L5 vertebrae show spina bifida with total absence of the neural arch. There is a rugged tuberosity on the posterior part of the superior surface of each ala of the sacrum. This is presumably a functional adaptation, giving attachment to strong ligaments in an attempt to produce a compensatory stability to off-set the weakness produced by the multiple spina bifida.

There is a well healed fracture of the R clavicle at the junction of its middle and outer thirds (Pl VI g).
The shaft of a second R humerus and the olecranon of a second R ulna occur with this inhumation.

Inhumation A21
Male. 35-45.
A moderately well preserved body but with a much damaged cranium. Present are:
About 24 fragments of cranial vault, 15 of base and face; mandible.

Teeth.  

Attrition is gross; caries absent.

Post-cranial remains:
All vertebrae; sacrum; L and R innominate; 50 rib fragments; manubrium sterni; L and R scapula and clavicle; L and R humerus, ulna radius; R radius; 9 metacarpals; L and R femur, patella, tibia, fibula, talus, calcis, navicular, cuboid, and 1st cuneiform; 8 metatarsals, 26 phalanges. (Several of these bones are damaged.)

The following measurements were taken:

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<td>68.40</td>
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</table>

Stature = 1711.6mm (5ft 7½in).
A small squating facet is present distally on each tibia.

Pathology
Early osteoarthritis is present laterally on each clavicle. Severe osteophytosis is present on the margins of all cervical vertebrae from C5 to C7 and there is considerable erosion and narrowing of their bodies. Osteophytosis is present on all thoracic and lumbar vertebrae. This is severe from T6-10, with fusion of T9 and T10. Osteoarthritis is present on most posterior inter-vertebral joints below T3 (including the lumbo-sacral articulations). It is also present on most vertebrae at the costo-vertebral articulations from T5-T9, on the bodies and the transverse processes. There is evidence of old trauma, probably organisation of a small subperiosteal haematoma, perhaps associated with a minor fracture, of a phalange of a finger. The base of a terminal phalange is splayed and irregular from a mild osteoarthritis. There is slight hallux valgus bilaterally.

Inhumation A22
Male. 40-50.
A very defective skeleton. Present are:
A severely damaged cranium; mandible.

Teeth.  

Attrition gross; the mandibular L M2 is carious, so too is the maxillary L M1.

Post-cranial remains:
27 fragments of vertebrae; 15 of ribs; a few scapular and clavicular fragments; and some small bones of the hand. L and R femur, patella, tibia, fibula and tarsalia; 7 metatarsals, 8 phalanges.

The following measurements were taken:

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<tr>
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<td>Cnemic Index</td>
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<td>73.13</td>
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</table>

Stature = 1801.6mm (5ft 11¼in).
A small squating facet is present on each tibia at the ankle joint.

Pathology
Osteophytic lipping is present on fragments of cervical vertebrae; also on some thoracic vertebrae. It is extensive on L2-L4. Osteoarthritis is present on some costo-vertebral articulations and at the lumbo-sacral joints. The poor quality of the remains makes it difficult to assess the precise amount of these lesions. Fragments of tibial and fibular shaft show some ‘graining’. This appears to be due to a periostitis. Its cause remains unknowable but, in view of the findings with inhumation A8, it may be noted that an appearance such as this is commonly found in leprosy as well as other conditions.

Inhumation A23
Female. 25-30.
A poorly preserved skeleton. Present are:
Ten fragments of cranial vault; 12 of base and face; a much damaged mandible. Surviving loose teeth are: 8I, 3C, 8P, 10M. Attrition is heavy; caries absent.

Post-cranial remains:
24 vertebral fragments, sacrum, 6 of innominate, 34 of rib. L and R clavicle, scapula, humerus, ulna and radius. (Almost all these bones are very defective.) L carpals, 6 metacarpals, 24 phalanges. L and R femur, tibia, fibula, tarsalia; 6 metatarsals.
Both humeri have a supratrochleal foramen. Squating facets are absent.

Inhumation A24
Male. 25-35.
A well preserved skeleton. Present are:
About 20 fragments of cranial vault, 12 of base and face. (Considerable reconstruction is possible.) Mandible.

The reconstructed skull is of medium build. It is an asymmetrical oval in norma verticalis. The frontal bone rises somewhat obliquely from a full glabella and moderately developed brow-ridges. It passes back in a smooth curve through the vertex to a well rounded occiput. There are two wormian bones at lambda. Nuchal muscle areas are moderately well developed. The mastoid processes are strong. The orbits are both defective but were rectangular and apparently rather low. The mandible is robustly built with everted gonias and a strongly projecting squarish chin.
Table 28 Cemetery A. Stature, Meric Index and Cnemic Index of males

<table>
<thead>
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<th>Meric Index</th>
<th>Cnemic Index</th>
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<td>ft in R</td>
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<td>5 71½</td>
<td>70.3 H</td>
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<tr>
<td>A6</td>
<td>1678.9</td>
<td>5 6</td>
<td>75.3 P</td>
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<tr>
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<td>1826.1</td>
<td>5 11½</td>
<td>79.1 P</td>
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<td>A14</td>
<td>1762.8</td>
<td>5 9½</td>
<td>70.5 H</td>
</tr>
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<td>1608.0</td>
<td>5 3½</td>
<td>73.8 H</td>
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<td>A21</td>
<td>1711.6</td>
<td>5 7½</td>
<td>81.5 P</td>
</tr>
<tr>
<td>A22</td>
<td>1801.6</td>
<td>5 11</td>
<td>88.5 E</td>
</tr>
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</table>

H = Hyperplatymeric; P = Platymeric or platycnemic; M = Mesocnemic; E = Euremic or euryercnemic

Teeth.

8 7 6 5 4 3 2 1 1 2 3 4 5 6 7 8

Loose maxillary teeth: 21, 2C, 4P, 4M. Attrition is moderately heavy; caries absent.

Post-cranial remains:
Vertebræ: 3 cervical fragments, 12 thoracic, 5 lumbar; sacrum; 10 fragments of innominate; about 50 of rib. L and R clavicle, humerus, ulna, radius, capitate and metacarpus. 22 phalanges. L and R femur, tibia, fibula, talus, calcis. A few other fragments. (Almost all the bones of this skeleton are somewhat damaged.)

A small squatting facet occurs distally on each tibia.

Pathology
The mandibular R, PM2 remains unerupted and the deciduous molar is retained in its place.

Summary

The measurements and indices of individual crania and mandibles are recorded in Tables 28 and 29. The small numbers available do not justify any statistical elaboration and no attempt is made to do this apart from the estimation of a few mean values.

It need only be said that metrically and anthroposcopically these remains fit quite well within the normal range of variation of Anglo-Saxon populations in this country, as far as that is known.

Stature

Owing to the poor state of the bodies stature has been estimated for only seven of the male burials. It ranged from 1608.0mm (5ft 3½in) to 1826.1mm (5ft 11½in) with a mean of 1728.4mm (5ft 8in). These figures are close to other Anglo-Saxons from Eriswell, Suffolk, and Thetford, Norfolk (Wells, 1961b; 1966; 1967). The general development and robustness of these people was about average by Anglo-Saxon standards.

Meric Index

This was taken on seven males. The range was from 69.9 to 88.5. In two persons both femora were hyperplatymeric, in two they were platymeric and in one euremic. In two individuals one femur was platymeric and the other hyperplatymeric.

Cnemic Index

This also was taken on seven males. One person was platycnemic, one mesocnemic and three eurycnemic. Two individuals had one tibia that was mesocnemic and the other eurycnemic.

Sex

Of 20 bodies in which a firm or probable assessment of sex was made, 11 were male, 9 female. This is a normal sex ratio but in general the males - especially their crania - tend to be considerably better preserved than the females. But this difference also extends to the long bones and suggests a rather sharp differentiation in the robustness of the sexes. Whether this is due to a strongly developed sexual dimorphism of genetic origin or whether it is the result of environmental influences is uncertain. It seems perhaps probable that in a society dedicated to male dominance the girls may have been somewhat undernourished in their childhood, at least during periods of relative scarcity or famine. This has been noted for other Anglo-Saxon groups. (Wells, 1961a; 1964b; 1964c.) If so, the better survival of the male bones may be the result of the boys and young men commanding a better and more abundant diet than the girls.
Age

Of the 24 individuals assessed here, 1 died in infancy, 4 in childhood, 1 in adolescence and the remainder survived to the age of 18 or more. There is nothing at all exceptional about this distribution.

Of 10 adult males the mean age at death was estimated to be 31.9 years, of 9 adult females the mean age at death was estimated as 26.1 years – a difference of 5.8 years. This, too, is not unusual and is commonly supposed to be the result of a high obstetric mortality in the young women. There is nothing to support this view and, though it cannot be rejected as a possibility, it may be that the earlier age at death

<table>
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<th>Skull</th>
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<th>B'</th>
<th>B''</th>
<th>H'</th>
<th>Q</th>
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<td>74.4</td>
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<td>74.7</td>
</tr>
<tr>
<td>A13</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<td>71.9</td>
<td>71.3</td>
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<td>38.6</td>
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<td>76.3</td>
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<td>–</td>
<td>–</td>
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<td>–</td>
</tr>
<tr>
<td>A24</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>517.6</td>
<td>73.2</td>
<td>–</td>
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<td>–</td>
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<tr>
<td>Mean</td>
<td>99.6</td>
<td>134.3</td>
<td>42.3</td>
<td>35.5</td>
<td>534.1</td>
<td>75.1</td>
<td>73.7</td>
<td>46.4</td>
<td>84.1</td>
</tr>
</tbody>
</table>
among the women is the result of some measure of chronic or often repeated malnutrition as suggested above.

It is worth noting that a probable cause of death can be identified in the case of only one of these people: inhumation A8.

**Anomalies and Pathology**

No very remarkable congenital or developmental anomalies were detected.

Two skulls were metopic. The incidence of wormian and epipteric bones was low but a few were found.

**Table 30** Cemetery A. Mandibles: male individual measurements and indices

<table>
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<tr>
<th>Number</th>
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<th>Age</th>
<th>w,</th>
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<th>rb</th>
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</tr>
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<td>117.07</td>
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<td>97.6</td>
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<tr>
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<td>M</td>
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<td>–</td>
<td>93.2</td>
<td>30.8(R)</td>
<td>45.2</td>
<td>36.7</td>
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<td>–</td>
<td>37.3</td>
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<td>–</td>
<td>85.0?</td>
</tr>
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<td>84.0</td>
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<td>35.3(R)</td>
<td>50.1</td>
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<td>–</td>
</tr>
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<td>A24</td>
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<th>m,p,1</th>
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<td>66.6(R)</td>
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<td>82.0</td>
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<td>43.2(R)</td>
<td>64.1</td>
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<td>–</td>
<td>–</td>
<td>75.5?</td>
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<td>27.0?</td>
<td>56.5?</td>
<td>67.3?</td>
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<th>&lt;R</th>
<th>&lt;G</th>
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<td>48.62</td>
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<td>–</td>
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<td>?</td>
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<td>94.98</td>
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<td>–</td>
<td>–</td>
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<td>99.26</td>
<td>86.09</td>
<td>66.54</td>
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</table>
Two bodies had bilateral supratrochlear foramina of the humerus; it was present unilaterally in one.

Spina bifida occurred in five persons and its distribution was as follows:

- **Inh**: Bifid segments of spine
- **A3**: S1
- **A8**: L5 (Left half of neural arch absent.)
- **A11**: L5 (Right half of neural arch absent.)
- **A19**: L6, S1
- **A20**: Atlas (Left half of arch absent), L3, L4, L5.

This is a somewhat high incidence but its frequency varies greatly in different groups. In some, presumably closely inbred communities, it has been found to reach 75% (Ferembach 1962). Owing to the defective state of many of these burials the number of spinæ bifidæ noted here — as with the rest of the pathology — is a minimum figure. The present incidence, therefore, may be some slight indication that the Beckford A people were a fairly closely inbred group. In three of the burials half a neural arch is missing (A8, A11 and A20). In A8 and A11 it is the L and R sides respectively of the equivalent vertebrae. In other words, we are confronted by a ‘mirror image’ defect — a state of affairs which occurs with special frequency in ‘identical’ (monozygotic) twins. Here, however, there can be no question of this because the two individuals are of opposite sexes.

The human spine, which in evolutionary perspective, is only recently erect is quite clearly not yet functionally adapted to its new posture — hence the crippling load of pathology and stress lesions which it sustains, especially in the lumbar and lumbosacral regions. Spina bifida, no matter how slight, always represents an additional weakness with greater or less potentiality for causing untoward symptoms. But the human body is versatile and adaptable: as far as possible it attempts to develop compensatory mechanisms for any anatomical or physiological defects. This can be seen in several of these bifid spines where supernumerary articular facets (lumbo-sacral or sacro-iliac) have developed to reinforce the structural weaknesses of the affected segments. Also, strongly rugose eminences on the vertebrae and pelvis reveal the presence of additional powerful ligamentous supports. We might suppose from this that the degree of spina bifida found in these persons was not so severe as to constitute a serious handicap or to reduce appreciably their survival potential. It is interesting, therefore, to see that the mean age at death of these individuals (20 years) is much below the average for the group and that, with the exception of A8, they appear to be somewhat under-developed physically. Whether there is a causal relationship between these findings remains uncertain.

A further anomaly is present in A20 where the T7 and T8 vertebrae have undergone synostosis by fusion of their spinous processes. This is not associated with any recognisable pathology and would seem to be developmental in origin, though a traumatic origin cannot perhaps be excluded.

Yet another developmental adaptation to functional demands may be seen in the presence of squatting facets at the ankle joints. These are best seen on the tibiae, where they occur 24 times in 13 individuals out of a total of 32 identifiable places in 17 persons: i.e. they are present on 75% of the tibiae. But in one specimen (A17) where the L tibia is missing a facet can be seen on the corresponding talus which survives. The interpretation of squatting facets is a problem. They are undoubtedly an anatomical response to the squatting posture but it remains uncertain how much squatting — and at what ages — is needed to produce them. Broadly speaking, crouching positions of the kind that appear to result in these facets may be due either to some occupation at which the worker habitually squats or else to the fact that squatting is the normally preferred position of rest. Both, of course, may be found together. As an occupational posture squatting is found among certain types of potters and basket makers, for instance. Alternatively, agriculturists or pastoralists may choose it as their position of rest when the day's work is done. There is no way of deciding on anatomical grounds which of these alternatives obtained among the Beckford people. Probably both conditions were present and varied in extent from one person to another. It may be that their poverty in material goods was such that they did not even have the simplest of stools or benches in their huts but, if so, this must surely have been from choice or indifference rather than necessity since — unless the terrain is treeless — it costs nothing in wealth and little in time or energy to make a serviceable stool out of a few bits of scrap wood. The fact that well developed squatting facets were already present by the age of 11–12 years (A17) may suggest that in these people the feature resulted from a culturally conditioned rest posture rather than as the result of some occupation requiring that position. In an agricultural community, moreover, it is difficult to see what work would keep 75% of the population squatting long enough to produce facets.

Osteoarthritis is present in three bodies (A1, A21 and A22) and its distribution points to these persons having led active and strenuous lives. Its chief sites of incidence are the intervertebral and the costo-vertebral joints, the clavicular joints, and in fingers and toes. These individuals, and also A8, have additional osteophytosis of the margins of the vertebral bodies. The implication of all these lesions is that the affected persons were exposed to repeated trauma from such injuries as chronic stress, perhaps due to carrying weights on the back or shoulders, to jarring movements such as might be caused by axing, hoeing, digging, etc, and perhaps — in the case of the fingers — to direct blows as a result of the clumsy use of hammers or other tools (cf Wells, 1962b; 1963).

The total incidence of osteoarthritis is very low when compared with some other Anglo-Saxon groups. In 61 inhumations at Red Castle, Thetford it was found in 46% of the burials, even though many of these were very defective. In 17 fairly complete
bodies it was present in 88% (Wells 1967). The Beckford A bodies, as have been stressed already, are also very defective – considerably more so than the Thetford material – and there is little doubt that the surviving evidence of osteoarthritis falls well short of its true incidence. Yet, even so, it does appear that for some reason, at which we can now only guess, the frequency (and perhaps the severity) of osteoarthritis at Beckford may have been significantly lower than among the Thetford Red Castle population.

Fractures are uncommon in this group, A20 has a well healed break of the R clavicle, which typically could follow an accidental fall on the point of the shoulder. In A1 two phalanges of toes appear to have been fractured and this could have been the result of accidentally dropping something on the foot or of being trampled by an ox at ploughing. The possibly fractured toe of A16 and finger of A21 are both uncertain but in each case the injury could have resulted from some accident in the ordinary course of daily work.

It will be seen that, so far, the few traumatic lesions which can be detected give no suggestion that they were caused by deliberate aggression in a people much given to feuds or bickering. There are, however, two skeletons that may contradict this view. The area of osteitis on the R femur of A14 might be the result of a deliberate wound, as from a dirk striking the bone. But it is quite ambiguous and, even if traumatic, it may have followed some accidental injury. The only skeleton in which deliberate wounding seems strongly probable is A2. But even here the defect in the frontal bone might have been due to an inadvertent blow from a carelessly brandished mattock or cleaver, though this seems less likely. The sum of this evidence, therefore, suggests that the cemetery A people were normally a peaceful, steadily working community with no great inclination to assault each other under the impulse of rage or mead. The absence of any case of Pott’s fracture is worth noting in view of its frequency in many Anglo-Saxon burial grounds (Wells 1964c 51; 1967).

Infectious conditions, apart from those of the jaws, are few and ill-defined. Whether the periostitis of tibiae and fibulae in A11 and A22 represents an infective process is somewhat doubtful. The only certain example is the leprosy of A8 which has already been published elsewhere (Wells 1962a) . Inhumations A6 and A21 are interesting in that they both have bilateral hallux valgus. The condition of lateral deviation of the great toe seems to have been uncommon in Anglo-Saxon populations. It is normally caused by wearing unduly tight footwear and has been one of the commonest of orthopaedic defects throughout the 20th century. The precise nature of Saxon footwear seems to be obscure but it is clear that as a rule their toes were not greatly constricted. The presence of these two persons with hallux valgus makes it highly probable that they, at least, habitually constricted their feet in some sort of unduly tight boot, sock or sandal. We may note that they are both males.

Cribra orbitalia is identifiable in only one orbit (A1). This is a most interesting condition of uncertain origin (Duggan and Wells 1964). Its frequency varies very greatly, even amongst populations which in other respects are closely similar. Little value can be placed on its solitary occurrence at Beckford in view of the severely fragmented condition of most of the crania. From the jaws it is possible to identify 540 tooth places or loose teeth of the permanent dentition. In all, 456 teeth survive (I 97, C 67, P 128, M 164); 50 had been lost from the jaws post-mortem; 15 had been shed during life; and 19 (all of them 3rd molars) were unerupted. Only one person (A22) had carious teeth (a maxillary L M1 and a mandibular L M2). This is a low incidence of caries even by Anglo-Saxon standards (0.4% of teeth) (Wells 1961b), though lower values have been found at Thetford and elsewhere (Wells 1967). Dental attrition is very heavy, however, and may account for some of the ante-mortem loss of teeth. In many groups, such as the Beckford population, where the primary caries rate is low secondary caries may develop as a result of gross erosion of the crowns of teeth opening up the pulp cavity. In severe attrition reactionary dentine is formed, often extensively, and this may delay the onset of dental decay. But when the erosive process outstrips the production of secondary dentine the pulp cavity is eventually exposed and infection is inevitable. This is one of the commonest forms of caries seen in Anglo-Saxons. Some of the teeth lost ante-mortem may also have been shed as a result of peridontal abscesses developing around them in the alveolus. These abscesses presumably follow the lodgement of a husk of grain or a spicule of bone between the tooth and the bony margin of its socket. A1 seems to have lost two teeth in this way.

It is clear from the state of the occlusal wear that these people had a coarse and abrasive diet. It may have been gritty from particles shed into the flour from friable querns or perhaps from ashes and sand adherent to the food as a result of hearth cooking. The dental evidence reinforces that from the rest of the skeleton in suggesting that these people led a hard and vigorous life with few refinements.

Cemetery B

Introduction

Compared with the cemetery A skeletons which were excavated only a few hundred yards away, cemetery B contained a mass of very poor material. Most burials were severely fragmented, and no skeletons were intact or complete. Presumably this was almost entirely due to a difference in soil conditions between the two sites. At Eriswell, Suffolk, remarkable contrasts in the preservation of the bones in single skeletons of early Saxon date were found and could be related to variations in the soil (Wells 1966).

As a result of the poor condition of the cemetery B skeletons little reliable information can be extracted
from them despite the substantial number of inhumations (108) present here.

**Sex**

For most of the skeletons the diagnosis of sex must remain very uncertain. Well preserved pelves or crania were non-existent and the sex had often to be inferred from limb bones and other evidence of poor quality.

With considerable difference and with varying probability 28 inhumations have been presumed male, 35 female and 45 have been left unsexed. The slight preponderance of females over males may represent a true situation that demands explanation as a social fact. If so, it may imply that for some reason the men of this community were dying away from home or that these people did not stay in the locality for long but whilst they did so the death rate was higher among the women than the men. Other explanations are possible but perhaps the discrepancy is merely due to errors in sexing owing to the poor state of most of the material.

**Age at death**

This, too, was extremely difficult to estimate for any individuals who had reached adult life. Pubic symphyses sufficiently well preserved to be of help were hardly to be found. It was impossible to work out molar attrition gradients according to the technique of Miles (1962). Estimates had to be made on a tenuously subjective basis from the use of such unreliable features as sutural fusion. Because of this it would clearly be misleading to claim a precision which the material could not provide and, therefore, only broad categories were used to define the ages at death. These were: adults = more than 25 years; young adults = 18–24; adolescents = 13–17; children = less than 13.

The final diagnosis was:

- **Males**: 25 adults, 3 young adults.
- **Females**: 19 adults, 14 young adults, 1 adolescent, 1 child.
- **Unsexed**: 10 adults, 2 young adults, 8 adolescents, 25 children.

The children were grouped as follows:

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</tr>
<tr>
<td>4–6</td>
<td>4</td>
</tr>
<tr>
<td>7–9</td>
<td>6</td>
</tr>
<tr>
<td>10–12</td>
<td>11</td>
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</table>

From this can be seen that of 28 males only 3 (10.7%) are estimated to have died as young adults, whereas among 35 females 14 (42.4%) fall into this age group. This is in line with almost all other early populations, it being a regular finding that the women die at an earlier age than the men.

Of the 108 individuals, 35 (32.4%) had died by the age of 18 years. This is a somewhat higher rate than that found in a group of 85 skeletons, recently excavated at Thetford, Norfolk (Wells 1967), where only 24 (28.2%) were dead by 18 years. At Beckford the children's deaths were spread fairly evenly throughout childhood until the 10–12 year period when there is a considerable rise. By contrast, of the 24 children at Thetford 21 (87.5%) were dead by the age of 6 years. This indicates that, although a substantial number died at Thetford in early childhood, once the age of six had been passed a period of low death rate was reached and continued for the next fifteen or twenty years before a fairly rapid deterioration of health began in early adult life. At Beckford no such healthy period is found throughout middle and late childhood. Deaths continue and even appear to increase as the teens approach.

But, presumably, this is in part due to the survival of their more sturdy skeletons: no doubt many babies died in infancy but are irrecoverably lost.

**Physical type**

In view of the severely defective nature of every inhumation it has not been thought worthwhile to give any measurements of crania. Not only were all the skulls broken, many of them into many pieces, but they have also suffered from post-inhumation warping and erosion which would further vitiate any measurements that might be taken on them.

From the available fragments it can be said that various features of cranial architecture suggest that in the intact condition these crania would have fallen within the range of normal variation of the early Saxon population in this country. Features which support this view, though mostly derived subjectively from gross examination, are: (a) a tendency to have a tuber occipitale; (b) many skulls were probably of a low mesocranial or dolichocranial index; (c) the frontal bone appears, in general, to rise rather steeply; (d) brow ridges are not strongly developed; (e) the orbits seem to have been fairly high in relation to their width; (f) there appears to be a tendency to eversion of the gonial angle.

Post-cranially, there seems an undoubted tendency towards small, lightly built carpal and tarsal bones which are associated with quite large metacarpals, metatarsals and phalanges. This is a common Anglo-Saxon characteristic, although it occurs in other populations as well.

**Meric and Cnemic Index**

Many femora and tibiae were broken, warped, eroded or damaged in some other way. However, a small sample of meric and cnemic indices was obtained and details of these are recorded in Table 31. It will be seen that, at least in the case of the femora, a wide range of values was found extending from 53.8 to
86.1. The average value is: L femur 70.3, R femur 69.4. The cnemic index ranges from 58.3 to 78.6 with means of: L tibia 61.8; R tibia 60.2.

Pathology

Little pathology was detected but this must not be taken to imply that these people were especially exempt from disease. At Red Castle, Thetford it was estimated that almost the whole adult population was affected to some extent by osteoarthritis. At Beckford cemetery it was detectable on only two or three bodies out of the 54 classed as 'adult'. This would be an extremely low incidence by Anglo-Saxon standards. It must surely be explained by the destruction of so many vertebral and other joint surfaces that it is impossible to recognise whether it was present or not.

Definite osteoarthritis is only recognisable on the vertebrae of B38 and B47; slight osteophytic lipping is found on a few fragments of vertebral bodies from B55.

Traumatic conditions are similarly elusive. B11, an adult male, has a well healed fracture of the left clavicle. This is an injury that typically arises from an accidental fall on the point of the shoulder. B48, an adult woman, has a well healed mid-shaft fracture of the right ulna. This injury can also occur accidentally in a variety of ways, though it is much less common as a result of falls than are Colles' fractures of the radius. Ulnar mid-shaft fractures are, however, a highly typical result of warding off a blow to the head. The greenstick variety of this injury is often seen in the 'battered child' syndrome. They are commonly referred to as 'parry' fractures and when sustained in this way by adults they appear to be especially frequent in women.

B36, an adult female, showed evidence of mild chronic sinusitis in the floor of the left maxillary antrum. This is a condition which may be common amongst people who live crowded together in small, ill ventilated, smoke filled huts. Chronic nasal irritation is likely to arise from fires or central hearths and the spread of droplet infection leads to many cases of infection of the nose, throat, sinuses and the upper respiratory tract in general. A striking example of maxillary sinusitis with formation of fistulae has been illustrated by Wells (1964d). B70, an adult male, has a mild degree of cribra orbitalia in the roof of the left orbit. This is an interesting condition but its significance remains uncertain (Wells 1964c).

Teeth

The poor quality of this material makes a detailed analysis of the dental condition impossible.

Sixty-eight jaws (maxillae and mandibles combined) were examined. From these, 1,246 teeth survived out of a potential 2176 – a survival rate of 57.2%. Of these, 290 incisors (53.3%) are present, 149 canines (54.8%), 311 premolars (57.0%) and 496 molars (60.7%). A total of 18 (0.14%) teeth are carious, of which there are 2 premolars and 16 molars. Many of the surviving teeth are loose and cannot be replaced in jaws.

Attrition ranges from light to gross, most being moderately heavy. In general, erosion of the teeth in this group seems to progress rapidly. Cusps become

<table>
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<tr>
<th>Inhumation</th>
<th>Meric Index</th>
<th>Cnemic Index</th>
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<tr>
<td>B102</td>
<td>70.7</td>
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heavily worn soon after eruption. This implies a coarse, abrasive diet. Meat may have been tough, with much gristle; vegetables were perhaps undercooked and fibrous. Dust and grit were probably plentiful in the food of these people. Many teeth show post-mortem damage which superficially might be mistaken for caries. It is due to mechanical, chemical and perhaps fungal or bacterial destruction of enamel and dentine. Paradontal abscesses occur but the disintegrated condition of most jaws makes it impossible to estimate their frequency.

Cemetery B: details of burials

Inhumation B1
Female. Adult.
Present:
About 50 very small cranial fragments. Teeth: 9M, 5P, 2C, 6i. Attrition moderately heavy; no caries.
About 50 splinters of long bones.

Inhumation B2
Present:
About 50 very small post-cranial fragments.

Inhumation B3
Adult.
Present:

Inhumation B4
Child 7?1-12 years.
Present:
A fragment of mandible carrying the R M1 and M2. The M1 is heavily eroded.
6 fragments of long bone of substantial size; about 80 tiny fragments of other post-cranial bones.

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<tbody>
<tr>
<td>Fe D1</td>
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<tr>
<td>Meric Index</td>
<td>77.8</td>
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Inhumation B5
?Female. Young adult.
Present:
About 55 small fragments of cranium; 6 of mandible. Teeth: 6m, 3p, 1c, 4i. Attrition moderate; no caries.
About 70 fragments of long bones, mostly very small though at least one substantial fragment of shaft has survived from each major long bone. About 30 small fragments of other post-cranial bones.

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<tr>
<td>Ti D1</td>
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<td>Cnemic Index</td>
<td>73.1</td>
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Inhumation B6
?Female. Young adult.
Present:
About 70 fragments of cranial vault, 20 of base and face, 5 mandibular fragments; one with L M1, M2 and M3 in situ; one with R P1, P2, M1 and M2 in situ. Total teeth: 8m, 8p, 4c, 9i. No caries.
A few moderate sized pieces of long bone shaft; about 150 small fragments of various post-cranial bones.

Inhumation B7
Male. 25-35.
Present:
About 40 fragments of cranial vault, 15 of base and face, 4 of mandible. This skull was strongly built; the detached mastoid processes are craggy; the glenoid fossae are shallow.
Teeth: 7m, 7p, 4c, 8i. Attrition moderately light; no caries. The mandibular 3rd molars are unerupted. The mental region is very square and strongly projecting.
There are also some substantial fragments of long bones and hundreds of small post-cranial fragments.

Inhumation B8
?Female. ?Young adult.
Present:
Some small fragments of lightly built long bones. A few dozen badly smashed pieces of vault, vertebrae, ribs and pelvis.

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<tr>
<td>Fe D1</td>
<td>24.1</td>
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<td>Fe D2</td>
<td>31.5</td>
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<tr>
<td>Meric Index</td>
<td>76.5</td>
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</tbody>
</table>

Inhumation B9
Female. Adult.
Present:
About 50 fragments of cranial vault, 60 of base and face, 5 of mandible.
Teeth: gm, 4p, 3c, 5i. Attrition moderate; no caries. A few dozen small grossly eroded fragments of long bones.

Inhumation B10
Female. Adult.
Present:
About 50 small fragments of cranial vault, 20 of base and face.
Teeth: 12m, 7p, 4c, 7i. Attrition moderate; no caries. About 13 substantial and 20 small fragments of long bone shafts. About 60 other small post-cranial fragments.

Inhumation B11
Male. Adult.
Present:
About 25 fragments of cranial vault, 10 of base, 2 of mandible, one shows a small paradontal abscess. Teeth: 11m, 3p, 4c, 2i. Attrition moderate; no caries. About 90 fragments of vertebrae and ribs; 15 of pelvis. About 8 substantial and 60 small fragments of long bone shafts. The damaged L clavicle shows a well healed fracture at the junction of the middle and lateral thirds.
Inhumation B12
A ?Female. 18–20 years.
B Child. 11–12 years.
A Present:
About 75 small fragments of cranium.
Teeth: 8m, 6p, 3c, 4i. Attrition light; no caries. 6 substantial and about 55 small fragments of long bone shafts; about 40 other small post-cranial fragments.
B Present:
A few damaged teeth; about 40 splinters of long bone shafts.

Inhumation B13
Child ?10–11 years.
Present:
About 10 tiny cranial fragments.
Teeth: 4m, 4p, 2c, 3i. Two substantial fragments of femoral shaft and about 40 other small fragments of long bones.

Inhumation B14
?Sex. Adult.
Present:
6 substantial and 40 small fragments of long bone shafts; about 25 of foot bones (much disintegrating); about 40 other small post-cranial fragments.

Inhumation B15
?Sex. ?Adolescent.
Present:
About 40 small fragments of long bones.

Inhumation B16
?Female. Adult.
Present:
About 30 small cranial fragments; 3 of mandible.
Teeth: 4m, 3p, 2c, 3i. About 50 fragments of vertebrae, pelvis and ribs, 20 of long bones.
There is a deformity of the head of the R humerus. It is flattened on the articular surface and smaller than normal, it is probably the result of an injury to the epiphysial cartilage during the growing phase of early childhood.

Inhumation B17
?Female. Adult.
Present:
About 35 fragments of cranial vault; 10 of base and face; 4 of mandible.
Teeth: 5m, 5p, 4c, 8i. Attrition gross; no caries. The mandibular R M2 and M3 were lost ante-mortem. Seven substantial and 90 small fragments of long bones; about 90 other postcranial fragments.

Inhumation B18
Present:
About 50 fragments of cranium, 6 of mandible.
Teeth: 8m, 4p, 3c, 5i. Attrition gross; one premolar and two molars have caries cavities in the neck. The mandibular R M1 was lost ante-mortem; the L M1 was probably also lost.
A L femoral shaft; about 50 other small fragments of long bones.

Inhumation B19
Child. 7–8 years.
Present:
About 60 small fragments of cranium, a few teeth (d); about 40 small fragments.

Inhumation B20
Male. Adult.
Present:
About 60 fragments of cranium; 4 of mandible, one carrying the L P2, M1, M2 and M3 in situ.
Teeth: 8m, 4p, 3c, 7i. Moderate attrition; no caries. Medial 2/3 of a slender L clavicle; acromion process of a much heavier R clavicle.
Damaged shafts of L and R femur and tibia; a few phalanges and about 300 very small fragments of other post-cranial bones.

Inhumation B21
Child. 11–12 years.
Present:
About 90 small fragments of cranium, 60 of long bones and 150 tiny fragments of other post-cranial bones. A few damaged teeth on which age determination is based.

Inhumation B22
Child. 8–9 years.
Present:
About 40 small fragments of cranium, 50 of long bone shafts and some damaged remains of teeth.

Inhumation B23
Male. Adult.
Present:
About 40 fragments of cranial vault, 15 of base and face. Craggy mastoid processes.
Teeth: 5m, 4p, 3c, 1i. Attrition moderate. No caries. Four substantial and about 100 small fragments of long bones; about 20 of other post-cranial bones.

Inhumation B24
Female. Young adult.
Present:
About 40 small fragments of cranium.
Teeth: 11m, 6p, 3c, 8i. Attrition light; no caries. Shafts of the L and R femur and tibia; about 120 other fragments of long bones; 130 of other post-cranial bones.

Inhumation B25
Male. Young adult.
Present:
About 35 fragments of cranial vault; 30 of base and face.
Teeth: 1m, 1p, 0c, 1i. Attrition light; no caries. Eleven substantial and 120 small fragments of long bone; about 100 other small post-cranial fragments.
Inhumation B26
?Sex. Adult.
Present:
About 50 very small fragments of cranium; 60 of long bone shafts.
Teeth: 8m, 4p, 1c, 1i. Attrition moderately heavy; no caries.

Inhumation B27
Present:
About 120 cranial fragments; 230 small post-cranial fragments (much eroded).
Teeth: 8m, 4p, 3c, 4i. No caries.

Inhumation B28
Female. Young adult.
Present:
About 25.6 41.5 61.6
61.6

Inhumation B29
?Sex. Adolescent.
Present:
About 80 fragments of cranial vault; 2 of mandible.
Teeth: 2m, 4p, 1c, 7i. Attrition very slight; no caries. About 70 fragments of lightly built long bones.

Inhumation B30
?Sex. Adolescent.
Present:
Nine substantial and about 60 small fragments of long bones.

Inhumation B31
?Sex. Adult.
Present:
About 70 small fragments of cranium; 75 of long bones.
Teeth: 7m, 6p, 3c, 4i. Attrition gross; no caries.

Inhumation B32
Present:
About 25 very small cranial fragments; 2 of mandible (one carrying L P2, M1 and M2 in situ).
Total surviving teeth: 7m, 4p, 3c, 2i. Attrition light; no caries.
About 40 very small fragments of long bone; 40 of other post-cranial remains.

Inhumation B33
A Child. 5–6 years.
B Child. ?2 years.
These two children can be identified from 5 substantial and about 70 tiny fragments of long bone, and about 50 other tiny fragments of post-cranial remains.

Inhumation B34
Female. Adult.
Present:
About 35 fragments of cranial vault, 10 of base, 15 of face, 4 mandibular fragments: L 11, 12 C and P1 and R 11, 12, C and P1 in situ.
Loose teeth: 10m, 4p, 1c, 4i. Attrition very heavy: two molars have a cervical caries cavity.
About 80 fragments of long bone; 150 of other post-cranial remains (much eroded).

Inhumation B35
Male. Adult.
Present:
About 35 fragments of cranial vault; 20 of base and face. Heavy mastoid processes.
Teeth: 7m, 6p, 3c, 5i. Attrition gross; no caries.
About 100 fragments of long bone, 40 of pelvis, 50 of vertebrae and ribs, and 40 of other post-cranial remains.

Inhumation B36
Female. 25–30.
Present:
About 40 fragments of cranial vault; 15 of base and face; 5 of mandible.
Teeth: 10m, 8p, 2c, 5i. Attrition heavy; no caries. Moderate tartar.
Smooth, sharply rising frontal area; mastoid processes light.
Shafts of most long bones (much damaged) and about 60 small fragments of long bone; 150 of other post-cranial remains.
With this inhumation was a separate container labelled 'Inhumation B36. At base of grave'. It contained a small unidentifiable fragment of bone.
?Mild chronic sinusitis floor of L maxillary sinus.

Inhumation B37
?Sex. ?Adolescent.
Present:
About 25 small fragments of long bones (mostly humerus).
Inhumation B38
?Female. 35-45.
Present:
About 20 fragments of vault; 12 of base and face; 8 of mandible.
Teeth: 8m, 4p, 2c, 8i. Attrition very heavy; no caries. The mandibular L M1 and R P2 had been lost ante-mortem.
About 100 fragments of long bone; 90 of hands and feet; 70 of other postcranial remains.
Some osteoarthritis on vertebral fragments. (Posterior intervertebral joints in thoracic spine.)

Inhumation B39
Female. Young adult.
Present:
About 30 fragments of cranial vault; 25 of base and face.
Teeth: 11m, 7p, 2c, 7i. Attrition heavy; no caries.
Damaged shafts of most long bones; about 30 small fragments of long bones; 100 of other post-cranial remains.

Inhumation B40
Present:
About 55 very small fragments of cranium; 4 of mandible.
Teeth: permanent: 5m, 4p, 3c, 4i; deciduous: 1m.
The deciduous tooth shows heavy attrition of the occlusal surface.
Six substantial and about 80 very small fragments of long bone; 40 other post-cranial splinters.

Inhumation B41
?Sex. Young adult.
Present:
About 30 fragments of cranial vault; 20 of base and face; 5 of mandible.
Teeth: 5m, 6p, 2c, 8i. Attrition light; no caries.
About 80 fragments of long bone; 110 of other post-cranial remains.

Inhumation B42
?Sex. Child. 7–8 years.
Present:
A few dozen very small cranial and long bone fragments.

Inhumation B43
?Female. Young adult.
Present:
About 50 small fragments of cranium.
Teeth: 5m, 4p, 1c, 2i. Attrition light; no caries.
About 100 small fragments of long bone; 80 of other post-cranial remains.

Inhumation B44
?Sex. Child. 5–6 years.
Present:
About 75 very small fragments of cranium; 12 of long bones.

Inhumation B45
?Female. Adult.
Present:
A fragment of mandible; 16 substantial (but much damaged) and about 40 small fragments of long bone.
About 50 other small post-cranial fragments.

Inhumation B46
?Sex. Child. 11–12 years.
Present:
About 55 cranial fragments; 19 teeth (d) or fragments thereof; 45 small fragments of long bone; 40 of other post-cranial remains.

Inhumation B47
Male. Adult.
Present:
About 45 fragments of cranial vault; 15 of base and face. Craggy mastoid processes. 4 fragments of mandible; very heavy and with markedly square mental region.
Teeth: 10m, 7p, 1c, 1i. Attrition heavy; no caries; 4 substantial and about 75 small fragments of long bone; 55 fragments of other post-cranial bones.
There is some osteo-arthritis lipping on a few fragments of lumbar vertebrae.

Inhumation B48
Present:
About 55 fragments of cranial vault; 30 of base and face; 3 of mandible.
Teeth: 12m, 4p, 3c, 7i. Attrition heavy; no caries.
Ten substantial and about 60 small fragments of long bone; 80 of other post-cranial remains.
There is a well healed mid-shaft fracture of the R ulna.

Inhumation B49
?Sex. Child. 10 years.
Present:
About 40 very small fragments of cranium; 8 substantial fragments of long-bone shafts and about 60 other tiny post-cranial remains.

Inhumation B50
Child. 11–12 years.
Present:
About 60 very small cranial fragments; 24 teeth or fragments thereof. Six substantial and about 70 small fragments of long bone shafts.

Inhumation B51
Male. 25–40.
Present:
About 40 small fragments of cranial vault; 15 of base and face; 3 of mandible.
Teeth: 8m, 8p, 4c, 4i. Attrition very heavy; no caries.
Nineteen substantial fragments of sturdily built long bone shafts; 20 small fragments. About 30 fragments of pelvis; 80 of vertebrae and ribs; 60 of hands and feet.
Inhumation B52
Child. 22–3 years.
Present:
About 30 tiny fragments of cranial vault.

Inhumation B53
?Female. Adult.
Present:
About 40 fragments of cranial vault; 25 of base and face; 3 of mandible.
Teeth: 7m, 8p, 1c, 1i. Attrition heavy; no caries.
Ten substantial and about 60 small fragments of long bone; 20 of pelvis; 50 of vertebrae and ribs; 30 of hands and feet.

Inhumation B54
?Female. 25–35 years.
Present:
About 40 fragments of cranial vault; 15 of base and face; most of mandible in 4 fragments with L12, C, P1, P2, M1, M2 and M3 in situ.
Teeth: 10m, 6p, 2c, 3i. Attrition moderately heavy; no caries.
Shafts of all long bones (no extremities present) and about 25 small fragments; 70 of other post-cranial bones.

Inhumation B55
Present:
About 30 fragments of cranial vault; 2 of mandible.
Teeth: 3m, 2p, 1c. Moderate attrition; no caries.
Six substantial and about 80 small fragments of long bone; 20 of pelvis; 50 of other post-cranial remains. Early osteophytosis on some thoracic vertebral bodies.
A few fragments of rib are bronze stained.

Inhumation B56
Child. 11–12 years.
Present:
About 80 very small cranial fragments.
Teeth: 7m, 8p, 3c, 8i. Attrition light; no caries.
Six substantial and about 60 very small fragments of long-bone shaft; 35 of other post-cranial remains.

Inhumation B57
?Female. Young adult.
Present:
About 40 small cranial fragments; L side of body of mandible showing ante-mortem loss of P1, P2, M1, M2 and M3. Surviving teeth: 3m, 3p, 1c, 2i. Attrition gross; no caries.

Inhumation B58
Child. 7–8 years.
Present:
About 50 very small fragments of cranial vault.
Teeth: permanent: 4 1st molars, 7i; 8 deciduous teeth.
About 25 fragments of long bone; 30 of other post-cranial remains.

Inhumation B59
Child. 8–9 years.
Present:
About 35 small fragments of cranial vault; 15 of long bones.

Inhumation B60
?Sex. Young adult.
Present:
About 55 fragments of cranial vault; 15 of base and face; 4 of mandible.
Teeth: 8m, 4p, 1c, 7i. Attrition light; no caries.
About a dozen substantial and 60 small fragments of long bone; 40 of other post-cranial remains. Lateral flange on femur.

Inhumation B61
Female. Adult.
Present:
About 15 small fragments of cranial vault; 10 of base and face; one of mandible carrying R M1, M2 and M3. Attrition moderate. No caries.
A few substantial and about 75 small fragments of long bone; 30 of other post-cranial remains.

Inhumation B62
?Female. Young adult.
Present:
About 40 small fragments of cranial vault; 10 of base; 8 of face; 3 of mandible.
Teeth: 6m, 7p, 4c, 7i. Attrition light; no caries. About 50 small fragments of post-cranial bones.

Inhumation B63
Female. 25–30.
Present:
About 30 small fragments of cranial vault; 12 of base; 3 of mandible.

Inhumation B64
Male. Young adult.
Present:
About 40 fragments of cranial vault, (strong brow ridges); 25 of base (craggy mastoids); 20 of face; 10 of mandible. Teeth: all present; attrition moderately heavy; no caries. About 60 fragments of vertebrae and ribs; 120 of long bones and hands and feet.

Inhumation B65
Female. 717 years.
Present:
About 40 fragments of cranial vault; 20 of base; 10 of face; 4 of mandible. Teeth: 7m, 4p, 4c, 8i. Attrition light; no caries. A few substantial and about 70 small fragments of long bones.

Inhumation B66
Female. 35–35.
Present:
About 40 fragments of cranial vault; 15 of base; 10 of face; 4 of mandible. Teeth: maxillary 2m, 2p, 2e, 2i. Mandibular complete in situ. Attrition light; no caries. This skull is metopic. Two cervical vertebrae (d); about 35 other vertebral fragments; 10 of pelvis; 90 of long bones and about 50 of other post-cranial remains.

Inhumation B67
Female. Adult.
Present:
About 55 fragments of cranium; 4 of mandible. Teeth: 12m, 8p, 4c, 8i. Attrition heavy; no caries. L clavicle (d). About 50 fragments of long bones; 120 of other post-cranial remains.

Inhumation B68
Child. 7–8 years.
Present:
About 40 fragments of cranium; a few teeth (d); 15 of long bone; 35 of other post-cranial remains.

Inhumation B69
Young child. 71–2 years.
Present:
About 15 tiny fragments of cranium and long bones.

Inhumation B70
Male. Adult.
Present:
About 45 fragments of cranium, (craggy mastoids). Teeth: 11m, 5p, 4c, 8i. Attrition gross (down to molar roots); no caries. Ten substantial and about 70 small fragments of long bones; about 50 of other post-cranial remains. Cribr orbitalia (Left) - I.

Inhumation B71
?Sex. Adult.
Present:
About 10 small cranial fragments. Teeth: 3m, 1p. Attrition moderate: no caries. About 20 fragments of long bone.

Inhumation B72
?Sex. Young adult.
Present:
About 70 fragments of cranium. Teeth: 8m, 6p, 4c, 5i. Attrition moderate; 7 substantial fragments of long bone; about 40 very small of other post-cranial remains.

Inhumation B73
Present:
About 35 small fragments of cranium. Teeth: 9m, 5p, 1c, 5i. Attrition heavy; no caries. Twelve substantial and about 35 small fragments of long bone; 120 of other post-cranial remains.

Inhumation B74
?Sex. Adult.
Present:
About 35 small fragments of cranium; 4 of mandible. Teeth: 6m, 3p, 3c, 6i. Attrition moderately heavy; 4 molars have caries cavities on their necks. The mandibular R P2 was lost ante-mortem. About 40 small fragments of vertebrae and ribs; 60 of long bones and 20 of other post-cranial remains.

Inhumation B75
Present:
About 30 fragments of cranial vault; 3 of mandible. Teeth: 9m, 7p, 2c, 8i. Attrition moderate; no caries. Axis: 11 substantial and about 40 small fragments of long bone; 70 of post-cranial remains.

Inhumation B69
Young child. 71–2 years.
Present:
About 15 tiny fragments of cranium and long bones.

Inhumation B70
Male. Adult.
Present:
About 45 fragments of cranium, (craggy mastoids). Teeth: 11m, 5p, 4c, 8i. Attrition gross (down to molar roots); no caries. Ten substantial and about 70 small fragments of long bones; about 50 of other post-cranial remains. Cribr orbitalia (Left) - I.

Inhumation B71
?Sex. Adult.
Present:
About 10 small cranial fragments. Teeth: 3m, 1p. Attrition moderate: no caries. About 20 fragments of long bone.

Inhumation B72
?Sex. Young adult.
Present:
About 70 fragments of cranium. Teeth: 8m, 6p, 4c, 5i. Attrition moderate; 7 substantial fragments of long bone; about 40 very small of other post-cranial remains.

Inhumation B73
Present:
About 35 small fragments of cranium; 4 of mandible. Teeth: 9m, 5p, 1c, 5i. Attrition heavy; no caries. Twelve substantial and about 35 small fragments of long bone; 120 of other post-cranial remains.

Inhumation B74
?Sex. Adult.
Present:
About 35 small fragments of cranium; 4 of mandible. Teeth: 6m, 3p, 3c, 6i. Attrition moderately heavy; 4 molars have caries cavities on their necks. The mandibular R P2 was lost ante-mortem. About 40 small fragments of vertebrae and ribs; 60 of long bones and 20 of other post-cranial remains.

Inhumation B75
Present:
About 30 fragments of cranial vault; 3 of mandible. Teeth: 9m, 7p, 2c, 8i. Attrition moderate; no caries. Axis: 11 substantial and about 40 small fragments of long bone; 70 of post-cranial remains.

Inhumation B69
Young child. 71–2 years.
Present:
About 15 tiny fragments of cranium and long bones.

Inhumation B70
Male. Adult.
Present:
About 45 fragments of cranium, (craggy mastoids). Teeth: 11m, 5p, 4c, 8i. Attrition gross (down to molar roots); no caries. Ten substantial and about 70 small fragments of long bones; about 50 of other post-cranial remains. Cribr orbitalia (Left) - I.

Inhumation B71
?Sex. Adult.
Present:
About 10 small cranial fragments. Teeth: 3m, 1p. Attrition moderate: no caries. About 20 fragments of long bone.

Inhumation B72
?Sex. Young adult.
Present:
About 70 fragments of cranium. Teeth: 8m, 6p, 4c, 5i. Attrition moderate; 7 substantial fragments of long bone; about 40 very small of other post-cranial remains.

Inhumation B73
Present:
About 35 small fragments of cranium; 4 of mandible. Teeth: 9m, 5p, 1c, 5i. Attrition heavy; no caries. Twelve substantial and about 35 small fragments of long bone; 120 of other post-cranial remains.

Inhumation B74
?Sex. Adult.
Present:
About 35 small fragments of cranium; 4 of mandible. Teeth: 6m, 3p, 3c, 6i. Attrition moderately heavy; 4 molars have caries cavities on their necks. The mandibular R P2 was lost ante-mortem. About 40 small fragments of vertebrae and ribs; 60 of long bones and 20 of other post-cranial remains.

Inhumation B75
Present:
About 30 fragments of cranial vault; 3 of mandible. Teeth: 9m, 7p, 2c, 8i. Attrition moderate; no caries. Axis: 11 substantial and about 40 small fragments of long bone; 70 of post-cranial remains.
**Inhumation B76**

?Adult.
Present:
About 20 small cranial fragments.
Teeth: 1m, 1c, 2i. Attrition heavy; no caries.
Eight substantial and about 20 small fragments of long bones; 25 of other post-cranial remains.

**Inhumation B77**

Present:
About 30 fragments of cranial vault; 15 of base and face; 3 of mandible.
Teeth: 8m, 3p, 2c, 1i. Attrition moderate; no caries.
Six substantial and about 50 small fragments of long bones; 50 of other post-cranial remains.

**Inhumation B78**

Present:
About 40 fragments of cranial vault; 15 of base and face (all very small). Most of a damaged mandible.
Teeth: 5m, 3p, 1c, 2i. Attrition very heavy; no caries.
Eight substantial and about 75 small fragments of long bones.

**Inhumation B79**

?Sex. Adolescent.
Present:
9 very small cranial fragments; 1 of mandible. Teeth: 6m, 3p, 3i. Attrition light; no caries. 4 substantial and about a dozen small fragments of long bones; a few other very small post-cranial remains.

**Inhumation B80**

?Sex. Adult.
Present:
Two tiny fragments of cranial vault; 10 substantial and about 25 small fragments of long bones; about 15 other post-cranial fragments.

**Inhumation B81**

Male. Adult.
Present:
About 20 fragments of cranium, mandible (damaged but with all teeth); maxillary 6m, 2p, 2i; attrition moderate; no caries. Very heavy craggy mastoid processes. Eleven substantial and about 40 small fragments of long bones; 20 of pelvis; 100 of other post-cranial remains.

**Inhumation B82**

?Sex. Adolescent.
Present:
About 40 very small fragments of cranium; 1 of mandible with R M1 and M2 in situ.

**Inhumation B83**

?Female. Adult.
Present:
About 25 small cranial fragments, 1 of mandible with L P2 and M1 in situ. Teeth: 6m, 5p, 2c, 6i. Attrition heavy; no caries.
L and R clavicles (d); 10 substantial and about 25 small fragments of long bone.

**Inhumation B84**

Present:
About 24 fragments of cranial vault; 6 of base; 1 of mandible.
Teeth: 6m, 1c, 2i. Attrition very heavy; no caries. About ½ of the shaft of each femur and tibia; 40 other small post-cranial fragments.

**Inhumation B85**

?Female. 11-12 years.
Present:
About 20 small fragments of cranial vault; parts of both temporals, R mastoid process; fragment of maxilla with R 12, C, and P1 in situ; 2 fragments of mandible. Two other molars, attrition negligible; no caries. Five fragments of pelvis; the shafts of both femora; about 25 small fragments of long bone.

**Inhumation B86**

?Female. Adult.
Present:
About 20 fragments of cranial vault; 1 of mandible with P2, M1, M2 and M3 in situ. Attrition moderate; no caries. About 25 fragments of long bones.

**Inhumation B87**

Child 7-8 years.
Present:
14 small fragments of cranial vault; 2 of petrous temporal; 2 of long bone.

**Inhumation B88**

Child 7-8 years.
Present:
About 20 small fragments of long bones.

**Inhumation B89**

?Sex. Adult.
Present:
About 10 tiny fragments of cranial vault. Teeth: 3m, 1p, 1c, 1l. Attrition moderate; no caries. About 50 very small fragments of long bone.

**Inhumation B90**

?Sex. Adult.
A few scraps of cranium, vertebrae and long bone.
Inhumation B91
Male. Young adult.
Present:
About 25 fragments of cranium; 5 of mandible.
Teeth: 8m, 5p, 3c, 5i. Attrition heavy; no caries.
Ten substantial and about 20 small fragments of long bone; 180 of other post-cranial remains.

Inhumation B92
Male. 25-35.
Present:
About 40 cranial fragments.
Teeth: 6m, 4p, 2c, 3i. Attrition heavy; no caries.
Eleven substantial and about 50 small fragments of long bone; 20 other small post-cranial fragments.

Inhumation B93
Female. Young adult.
Present:
About 50 small and much eroded fragments of cranium.
Teeth: 11m, 6p, 3c, 8i. Attrition light; no caries.
Sixteen substantial and about 30 small fragments of long bone.

Inhumation B94
Male. Adult.
Present:
About 50 cranial fragments.
Teeth: 8m, 6p, 4c, 6i. Attrition moderate; 3 molars and 1 premolar have a caries cavity in the neck.
Eleven substantial and about 55 small fragments of long bone; 50 other small post-cranial fragments.

Inhumation B95
Male. Adult.
Present:
About 45 small cranial fragments.
Teeth: 12m, 6p, 2c, 3i. Attrition heavy; 3 molars have caries cavities in the neck.

Inhumation B96
Male. Adult.
Present:
About 25 fragments of cranium; 2 of mandible, one of which shows ante-mortem loss of R P2 and M1.
Ten substantial and about 35 small fragments of long bone; 10 other small post-cranial fragments.

Inhumation B97
Female. Adult.
Present:
About 50 small fragments of cranial vault; 25 of base and face; 10 of mandible.
Teeth: 12m, 7p, 1c, 8i. Attrition moderately heavy; no caries.
About 80 small fragments of long bones; 30 of other post-cranial remains.

Inhumation B98
Female. Adult.
Present:
About 20 small fragments of cranium; 4 of mandible.
Teeth: 9m, 7p, 3c, 1i. Attrition heavy; two molars have a caries cavity on the neck.
Ten substantial and about 35 small fragments of long bone; 50 of other post-cranial remains.

Inhumation B99
Child. Approx 10 years.
Present:
About 35 very small fragments of cranium; 30 of long bones; 15 of other post-cranial remains.

Inhumation B100
Child. 4-5 years.
Present:
A few small cranial and long bone fragments.

Inhumation B101
Female. Young adult.
Present:
About 30 small fragments of cranium; 3 of mandible.
Teeth: 3m, 4p, 1c. Attrition moderate; no caries.
About 30 fragments of long bones; 40 of other post-cranial remains.

Inhumation B102
Female. Adult.
Present:
About 30 fragments of cranium.
Teeth: 9m, 5p, 2c, 2i. Attrition moderate; no caries.
L radius; 10 substantial and about 50 small fragments of long bones. Both humeri have a supratrochlear
foramen.
About 30 other post-cranial fragments.

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<td>Fe D2</td>
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<td>34.6</td>
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<td>63.8</td>
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<td>Cnemic Index</td>
<td>72.6</td>
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Inhumation B103
Child. 5–6 years.
A few dozen very small cranial and long bone fragments; a few teeth.

Inhumation B104
Male. Adult.
Present:
About 30 fragments of cranium.
Teeth: 10m, 8p, 4c, 3i. Attrition heavy; no caries.
Axis: 10 substantial and about 50 small fragments of long bones; about 120 other small fragments.

Inhumation B105
Male. Adult.
Present:
About 36 fragments of cranial vault; 10 of base and face; 3 of mandible.
Teeth: 10m, 7p, 3c, 8i. Attrition moderately heavy; no caries.
Fourteen substantial and about 45 small fragments of long bones; 80 of other post-cranial remains.

Inhumation B106
?Adolescent.
Present:
About 15 very small fragments of cranium.
Teeth: 2m, 3p, 3c, 2i. Attrition light; no caries.
About 35 very small fragments of long bones.

Cremation 1
A few unidentifiable fragments. Probably human.

Cremation 2
Some unidentifiable fragments. Possibly human.

Cremation 3

Cremation 4
A few unidentifiable fragments; possibly bone.

Textiles
G Learmonth and Elisabeth Crowfoot
(Fibres: G Learmonth and H M Appleyard)

Textile and leather remains from this Anglo-Saxon cemetery were described by G Learmonth during conservation at Birmingham in 1971–9. The information in his detailed notes is supplemented here after recent examination of the grave-goods by Elisabeth Crowfoot, and compared with other West and Midlands material.

In his conservation report, George Learmonth writes:

The textiles from Beckford have been almost exclusively preserved in the 'mineralised' form where oxide from rusting of nearby iron has been laid down on the surface of the textile fibres, preserving their outward form, even after the textile itself has decayed completely.

In most cases the fragments are very small and the thread counts given are tentative. It has not been possible to distinguish between warp and weft in any of the fragments and examination has been further complicated by access being possible to only one side of the fragments since in most cases they are stuck firmly to the surface of a metal artefact.

Fibres recovered from three fragments (A18/1, A20/1, and B6/3) are sufficiently well preserved to show the microscopic characteristics of a vegetable fibre similar to flax but their condition prevents positive identification.

On the fibres from another object, A18/3, H M Appleyard recently found 'the cross-markings and cross-sectional shape characteristic of flax.'

Two types of weave were identified by George Learmonth, 2/2 twill and, less frequently, plain weave (tabby). 'Yarns composed of Z-twisted threads, S-plied together' which he describes are now recognisable in two graves as typical of the warp-cords of tablet-weave braids or borders, decorative and practical details that have since been found on many Anglo-Saxon sites.

As can be seen from the tabulated catalogue (Table 32) very little could be added to his notes (indicated there by his initials GL) — a few overall measurements of the areas, or largest textile fragments present, which serve to emphasise his remarks on their size; the addition of a few pieces which do not occur on his list, and were presumably not at that time available for study; and occasional details that perhaps emerged in later moving.

Fibres and spinning
As mentioned above, though the majority of these textiles would normally have been of wool, the only fibres identifiable were of flax. The spinning direction throughout both cemeteries is predominantly Z in warp and weft, only nine fabrics having yarns with mixed spinning, Z (often in Anglo-Saxon material the warp) and S (?weft). The threads, as George Learmonth notes, 'are understood to have been twisted to medium tension (ie neither loosely or tightly twisted) unless otherwise stated.'

The weaves preserved are of respectable, but not notably very good quality. They show the twill preponderance — here 28 possible twill weaves to nine probable tabbies — characteristic of most areas in the 6th to 7th centuries (with the striking exception of Kent).
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<th>Measurement</th>
<th>Fibre</th>
<th>Spun</th>
<th>Weave</th>
<th>Thread count</th>
<th>Diameter</th>
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<td>2/2 twill</td>
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</tbody>
</table>

**Table 32 Catalogue of textiles**

**Cemetery A**

1. **Grave 1**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
2. **Grave 2**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
3. **Grave 3**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
4. **Grave 4**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
5. **Grave 5**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
6. **Grave 6**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
7. **Grave 7**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
8. **Grave 8**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
9. **Grave 9**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
10. **Grave 10**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
11. **Grave 11**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
12. **Grave 12**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
13. **Grave 13**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
15. **Grave 15**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
16. **Grave 16**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
17. **Grave 17**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
18. **Grave 18**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
19. **Grave 19**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
20. **Grave 20**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
22. **Grave 22**: Fibre: mineralised, Spun: ZZ, Weave: 2/2 twill, Diameter: 0.8mm, Comments: deteriorated patches.
<table>
<thead>
<tr>
<th>Grave</th>
<th>Catalogue no</th>
<th>Object</th>
<th>Position textile</th>
<th>Measurement</th>
<th>Fibre</th>
<th>Spin</th>
<th>Weave</th>
<th>Thread count</th>
<th>Diameter</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>2</td>
<td>Gilt saucer brooch</td>
<td>round hinge</td>
<td>–</td>
<td>mineralised</td>
<td>Z</td>
<td>threads</td>
<td>–</td>
<td>–</td>
<td>GL</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Ae tweezers</td>
<td>round ends</td>
<td>–</td>
<td>mineralised</td>
<td>Z</td>
<td>threads</td>
<td>–</td>
<td>–</td>
<td>GL</td>
</tr>
<tr>
<td>25</td>
<td>2a</td>
<td>Shield boss</td>
<td>underside</td>
<td>–</td>
<td>mineralised</td>
<td>–</td>
<td>leather</td>
<td>–</td>
<td>–</td>
<td>remains, with wood</td>
</tr>
<tr>
<td>Unass</td>
<td>not identified</td>
<td>Shield fragments</td>
<td>over area</td>
<td>2.7 × 4.0</td>
<td>mineralised</td>
<td>Z/S</td>
<td>2/2 twill</td>
<td>–</td>
<td>–</td>
<td>GL</td>
</tr>
<tr>
<td>Unass</td>
<td>10</td>
<td>Fe buckle</td>
<td>over plate</td>
<td>0.7 × 0.7</td>
<td>mineralised</td>
<td>Z/Z</td>
<td>twill</td>
<td>–</td>
<td>–</td>
<td>damaged, threads pairs</td>
</tr>
</tbody>
</table>

### Cemetery B

<p>| 1     | 2            | White metal buckle | pierced tongue, wrapped round loop | 1.8-2.0 wide, 0.3cm thick | mineralised | – | leather | – | – | three measurements thus GL |
| 6     | 1            | Ae disc brooch | round pin | – | mineralised | Z | threads | – | – | GL |
| 3     | 1            | Ae disc brooch | corrosion flake back of pinhead | 0–0.5 × 2.5 | mineralised | (a) | +twill | 14/12 (6/6 5mm) | degraded layers in lump GL |
| 6     | 3            | Fe buckle | small area | 7×1.0 × 0.3 | mineralised | Z/Z | tabby | – | – | fine threads |
| 7     |              | Ae strap-end | on plate | 7×0.8 × 0.7 | mineralised | Z/Z | tabby | 5/5 on 5mm | fine threads, open weave |
| 16    | 5            | Fe ring fragment | patch | – | mineralised | Z/Z | twill | – | – | fine threads, damaged |
| 18    | 3            | Fe–Ae buckle plate | on outside | – | mineralised | Z | ? | – | 0.6mm | threads GL |
|       |              | Ae buckle | inside | – | – | – | – | – | – | – |
|       |              | inside | – | – | – | – | – | – | – | – |
|       |              | between plates | 1.8 wide, 3–4mm thick | mineralised | – | leather | – | – | GL |
| 2     |              | Fe–Ae buckle | traces | – | 7×0.8 | mineralised | Z/Z | ?twill | – | – | deteriorated, with leather |
| 26    | 2            | Fe annuller brooch | round pin | – | mineralised | Z | threads | – | c 2mm | 4 threads, cord or plied |
| 27    | 1a           | Shield boss | inside boss | – | mineralised | – | leather | – | – | GL |
| 29    | 3a           | Fe buckle | inside loop, by tongue between plates | 1.8 wide | mineralised | – | leather | – | – | GL |
|       |              | – | 0.2cm thick | mineralised | – | leather | – | – | GL |
| 4     |              | Fe annuller brooch | all over top | 0.8 × 0.2 | mineralised | Z/Z | ?tabby | 4×9/24 (12 on 5mm) or 24/4–5 | belt, ?welt-face, or warp-face |
| 32A   | 1            | Fe buckle | on loop | – | mineralised | – | leather | – | – | small fragment GL |
| 35    | 799          | 673249 | Shield boss | on Fe stud from upper surface rim | 0.7 × 0.9 | mineralised | Z/Z | 2/2 twill | 0.5–0.9mm | degraded patch GL |
| 39    | 3            | Fe knife | on fragments | – | mineralised | Z/Z | ?tabby | – | – | deteriorated patches |
| 6     |              | Fe ring | on bezel | – | mineralised | Z | thread | – | – | GL |
| 8     |              | Ae tube | inside | – | mineralised | Z | threads | – | – | ?packing for core of A18/3 |
| 41    | 1            | Disc brooch | round Fe pin | – | mineralised | Z/Z | twill | – | – | small patch |
| 46    | 2            | Saucer brooch | on front | 3.0 × 4.2 | mineralised | Z/S | ?broken diamond 2/2 twill c 7/7–8 | – | – | crushed surface, shows reverses, pattern not clear |
| 48    | 5            | Toilet implements | on Ae cone | 0.1 × 1.1 | mineralised | Z/S | ?twill | – | – | fairly coarse weave |
| 57    | 7153         | 673044 | Fe buckle | on plate | – | mineralised | Z/Z | ? | – | weave uncertain |
| 4     |              | Disc brooch | area, pin and back | 2.2 × 3.0 | mineralised | Z/S | ?twill | – | – | clear patch in decayed area; coarser |
| 61    | 3            | Fe buckle | all over ring and pin | 1.2 × 0.8 | mineralised | Z/Z | ?twill | – | – | count not clear |
| 2     |              | Disc brooch | back, and round pin | – | mineralised | Z/Z | 2/2 twill | 0.5–0.9mm | GL |
| 67    | 2            | Applied brooch | on back | 0.3 × 0.3 | mineralised | Z/Z | tabby | 5/4 threads | – | tiny fragment clear |</p>
<table>
<thead>
<tr>
<th>Grave</th>
<th>Catalogue no</th>
<th>Object</th>
<th>Position textile</th>
<th>Measurement</th>
<th>Fibre</th>
<th>Spin</th>
<th>Weave</th>
<th>Thread count</th>
<th>Diameter</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>68</td>
<td>4, 6</td>
<td>Fe complex, course, etc.</td>
<td>mass on all pieces</td>
<td>–</td>
<td>mineralised</td>
<td>ZZ/S</td>
<td>2/2 twill</td>
<td>–</td>
<td>0.5–1mm</td>
<td>fibrous mass includes textile and leather</td>
</tr>
<tr>
<td>71</td>
<td>2</td>
<td>Ivory ring, Ae plates</td>
<td>wound round plates</td>
<td>–</td>
<td>mineralised</td>
<td>Z</td>
<td>4 threads</td>
<td>–</td>
<td>0.5mm</td>
<td>spinning tension medium to low; binding may indicate loose rivet</td>
</tr>
<tr>
<td>80</td>
<td></td>
<td>Fe fragment</td>
<td>shield studs</td>
<td>1.9 x 0.7</td>
<td>mineralised</td>
<td>z/s</td>
<td>z/s twill</td>
<td>9/10 (5 on 5mm)</td>
<td>0.75–1mm</td>
<td>small fragments on studs not adjoining</td>
</tr>
<tr>
<td>84</td>
<td>1</td>
<td>Fe–Ae buckle</td>
<td>on outside inside loop, pierced by tongue</td>
<td>1.8 wide, 0.2 thick</td>
<td>mineralised</td>
<td>ZZ</td>
<td>twill</td>
<td>–</td>
<td>–</td>
<td>broken threads strap</td>
</tr>
<tr>
<td>85</td>
<td>1</td>
<td>Spearhead</td>
<td>traces, scattered</td>
<td>–</td>
<td>mineralised</td>
<td>ZZ</td>
<td>?</td>
<td>–</td>
<td>–</td>
<td>coarse fabric, wrapping</td>
</tr>
<tr>
<td>89</td>
<td>4</td>
<td>Fe buckle</td>
<td>under plate</td>
<td>c 1.5 x 2.0</td>
<td>(a) mineralised</td>
<td>ZZ</td>
<td>2/2 twill</td>
<td>14/13 (7 on 5mm)</td>
<td>–</td>
<td>fine threads</td>
</tr>
<tr>
<td>7220</td>
<td>373367</td>
<td>Fe buckle</td>
<td>inside, 1.3cm wide, 0.2 thick</td>
<td>(a) mineralised</td>
<td>ZZ</td>
<td>2/2 twill</td>
<td>–</td>
<td>0.5–0.7mm</td>
<td>degraded</td>
<td></td>
</tr>
<tr>
<td>94</td>
<td>2</td>
<td>Disc brooch</td>
<td>on tongue</td>
<td>–</td>
<td>mineralised</td>
<td>S</td>
<td>threads</td>
<td>–</td>
<td>–</td>
<td>coarse; 7 bead thread</td>
</tr>
<tr>
<td>101</td>
<td>2</td>
<td>Fe buckle belt plate</td>
<td>on plate</td>
<td>–</td>
<td>(a) mineralised</td>
<td>ZZ</td>
<td>2/2 twill</td>
<td>9/8</td>
<td>0.8–1mm</td>
<td>2 layers, some 7S threads in three folds</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>inside Ae studs</td>
<td>1.9 wide, 5mm thick</td>
<td>(b) mineralised</td>
<td>ZZ/S</td>
<td>2/2 twill</td>
<td>–</td>
<td>–</td>
<td>remains of strap</td>
</tr>
<tr>
<td>102</td>
<td>3</td>
<td>Ae–Fe buckle</td>
<td>on tongue</td>
<td>–</td>
<td>mineralised</td>
<td>ZZ</td>
<td>tabby</td>
<td>–</td>
<td>c 0.6mm</td>
<td>light twist; too small for count</td>
</tr>
</tbody>
</table>

The following objects had traces of Z-spun threads, but were not well enough preserved to give more details:
Cemetery A.16/1, small long brooch; Unass.1, gilt saucer brooch.
Cemetery B.16/3, 8, small long brooches; 31/1, applied brooch; 34/1, disc brooch; 83/1, small long brooch, 2, small long brooch; Unass.7, applied brooch.

Some of the above objects are not now identifiable. In these cases the incorrect find number and the laboratory number are recorded here. (VE)
Twills here seem to have been of medium grade, simple 2/2 diagonal constructions; but with such tiny fragments it is only by accident that the right area survives for reverses to be visible in warp and/or weft, the indication of patterned twills such as the chevron and the broken diamond. These are to be seen here only on one brooch (B46/2), but the crushed textile surface is not complete enough even here for the pattern to be drawn.

For Tabby weaves, which include all the samples identified as flax, yarns are again Z-spun, and generally finer than in the twills. One of the finest, with thread-count c 15/13 per cm, is preserved only as a cast on the plate of a buckle (B18/3) and has so many broken threads that it might be tabby or twill. Tiny fragments on a brooch (B29/4), with one system coarse, the other finer and closely packed, could come from a warp-face belt or strap, or the weft-face border or stripe on a garment that lay over the buckle. The position of the few traces of tablet-weave also suggest both these uses – the cords from A16/2, on the hinge of a brooch, a braid or weave-border decorating the neckline; and those on the iron rings from the same grave (A16/3) a band used to tie the objects together, or from the belt. Though numerous leather straps or belts have been identified in buckles, and with the shields in men's graves, the presence of tablet-weave together with leather on a buckle (A18/4) might suggest here a woven belt, strengthened with leather ends.

Costume details are less clear than in the Anglian cemeteries, where the arrangement of brooches, and the wrist-clasps with weave fragments, are taken to indicate that the women wore an outer garment, pinned on the shoulders, over a long-sleeved shirt or under-dress. The pairs of brooches in the women's graves here are also likely to be functional, not merely decorative. Four of the fabrics with yarns or from the belt. Though numerous leather straps or belts have been identified in buckles, and with the shields in men's graves, the presence of tablet-weave together with leather on a buckle (A18/4) might suggest here a woven belt, strengthened with leather ends.

The beads analysed were mostly monochrome, though three of the beads analysed were polychrome (see Table 33). The interpretation of the analyses of the polychrome beads is more complex than for monochrome beads as the area analysed includes more than one glass colour. The colours of the beads were determined subjectively by eye but should provide a reasonable basis for comparison with each other and with the analytical results. The opacity of the beads varied from translucent to completely opaque, and these have been divided into two groups: opaque and translucent, based on visual comparison.

Analysis

The beads were analysed using energy dispersive X-ray fluorescence (EDXRF) with an evacuated sample chamber. The elements analysed for were silicon (Si), phosphorus (P), potassium (K), calcium (Ca), titanium (Ti), manganese (Mn), iron (Fe), cobalt (Co), copper (Cu), zinc (Zn), lead (Pb), strontium (Sr), tin (Sn) and antimony (Sb). No attempt was made to analyse low atomic number elements such as sodium and therefore the bulk composition of the glass could not be determined. No sample preparation of the surface of the beads was possible due to the necessity for non-destructive analysis so any results from light elements would have been unreliable. The calcium results may also have been affected by contamination due to weathering and surface leaching. Since silicon is expected to be present at a relatively constant level in the beads as it is the major constituent of ancient glass it was used as an internal standard. The results were normalised by taking the ratio of the K-alpha peak height of each element (except for lead, when the L-alpha peak height was used) to that of the corresponding silicon K-alpha peak. The normalised results are listed in Table 34. Only cobalt was not treated in this way as it was present, if at all, in very low concentrations and the peak for cobalt overlaps with the iron K-beta peak. Cobalt was therefore recorded as detected/not detected.

The method of normalising results to silicon is not so good when the glass has a high lead content. The lead causes the signal intensity from the light elements, particularly silicon, to be depressed relative to the other elements, and this results in a much more
higher ratio figure for the other elements than in the beads with lower lead contents. This must be taken into consideration when comparing the ratios of high lead glass beads to other beads.

The ratio figures for each element quoted in Table 34 cannot be compared between elements (ie across the table) as the ratio bears little relation to the proportion of that element present. Different elements are excited with varying efficiencies by the primary X-rays, eg tin is excited far less than copper so the ratio will be a lot lower even when the amounts involved are similar. However, comparisons between analyses for a particular element (ie down the table) are valid.

Most of the elements recorded have an effect on the colour or opacity of the glass, the exceptions being phosphorus, potassium, calcium, titanium and zinc. Phosphorus, potassium and calcium are usually present in soda-lime-silica glasses as impurities in the main glass forming components. Titanium is also found at low levels in most glass and enters the glass melt as an impurity in the sand (silica) component. Zinc often enters the glass melt as an impurity or deliberate addition in the copper.

Results

Twenty-eight beads from Beckford were analysed by EDXRF (10 from cemetery A and 18 from cemetery B) and they were of varying colours and types (for full descriptions of the beads see Table 33). These can be divided into twelve colours:

<table>
<thead>
<tr>
<th>Colour</th>
<th>Opaque</th>
<th>Translucent</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue (B)</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Black (Bk)</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Blue/Green (B/G)</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Green (G)</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Dark Blue (DB)</td>
<td>-</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Light Blue (LB)</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Dark Olive (DO)</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Light Green (LG)</td>
<td>-</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Purple (Pp)</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>‘Colourless’ (O)</td>
<td>-</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Polychrome (P)</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Yellow (Y)</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Polychrome (P)</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
</tbody>
</table>

The analysed beads could be divided into six broad typological groups based on those types defined for beads from Buckland (Evison 1987, 61):

<table>
<thead>
<tr>
<th>Type</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cylinder</td>
<td>8</td>
</tr>
<tr>
<td>Globular</td>
<td>7</td>
</tr>
<tr>
<td>Annular</td>
<td>5</td>
</tr>
<tr>
<td>Disc</td>
<td>5</td>
</tr>
<tr>
<td>Melon</td>
<td>2</td>
</tr>
<tr>
<td>Biconical</td>
<td>1</td>
</tr>
</tbody>
</table>

The range of colours and bead types is similar to those from a number of other 5th to 7th century cemetery sites in Britain such as Sewerby (Hirst 1985, 62–85), Buckland, Dover (Evison 1987, 61–82), Mucking (Heyworth 1988) and Wakerley (Heyworth 1987).

Discussion

The beads are likely to be made of soda-lime-silica glass, and some will have had lead added at levels up to some 20–30%. This major element composition is a standard glass composition in the 1st millennium AD for all types of glass, vessels and windows as well as beads. The main components in the glass melt were sand, which provides the silica and possibly the calcium in the form of shell, and an alkali, either natron or a marine plant ash, which provided the soda.

The bulk composition of the glass beads cannot be determined from the elements recorded, however the titanium content may be a reflection of the silica source used, as it usually comes into the glass as an impurity in the sand, and variations in the titanium content may therefore equate with variations in raw materials sources. The titanium levels in the Beckford beads are mostly very low, with most of the beads having titanium ratio figures over 0.1 being due to the high levels of lead in the glass (see above). This means that there is no evidence for varying silica sources, though it does not necessarily follow that there was a constant silica source for the manufacture of all the beads. There do seem to be some variations in other elements, such as the potassium content, that may reflect variations in raw materials.

The other elements recorded were in the glass melt as either impurities in the main components or as deliberately added elements to achieve colouring or decolouring. Manganese, iron, cobalt, copper, tin, lead and antimony can all have a colouring effect, even when present in only very small quantities. Manganese and antimony can also act as decolourisers.

The production of coloured glass is extremely complex with a number of factors to take into account, such as deliberately added colourants or decolourants, the furnace conditions in which it is produced and the bulk composition of the glass. The colouring effect of different elements can be summarised as follows (for more detailed consideration see Bayley forthcoming; Biek and Bayley 1979). The colour of iron-containing glass is strongly influenced by the furnace conditions, it will appear blue in strongly reducing conditions, green in less strongly reducing conditions and yellow or brown in oxidising conditions. This can be complicated by the presence of manganese which can either produce a wider range of colours including purple, or can act as a decolouriser to produce ‘colourless’ glass. Cobalt produces an intense blue colour, whereas copper produces a more turquoise blue or green in oxidising conditions. In
### Table 33 Catalogue of beads analysed by EDXRF

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Opacity</th>
<th>Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>B3/1Be</td>
<td>annular</td>
<td>translucent</td>
<td>blue</td>
</tr>
<tr>
<td>A16/4h</td>
<td>cylinder</td>
<td>dark blue</td>
<td>dark blue</td>
</tr>
<tr>
<td>A9/4e</td>
<td>cylinder</td>
<td>dark blue</td>
<td>dark blue</td>
</tr>
<tr>
<td>B102/2e</td>
<td>biconical</td>
<td>dark blue</td>
<td>dark blue</td>
</tr>
<tr>
<td>B83/3e</td>
<td>annular</td>
<td>dark blue</td>
<td>dark blue</td>
</tr>
<tr>
<td>B3/1Bf</td>
<td>annular</td>
<td>dark blue</td>
<td>dark blue</td>
</tr>
<tr>
<td>B16/1Bd</td>
<td>disc</td>
<td>light blue</td>
<td>light blue</td>
</tr>
<tr>
<td>A23/5I</td>
<td>globular</td>
<td>light green</td>
<td>light green</td>
</tr>
<tr>
<td>A9/4f</td>
<td>globular</td>
<td>light green</td>
<td>light green</td>
</tr>
<tr>
<td>B3/1Bh</td>
<td>globular</td>
<td>light green</td>
<td>light green</td>
</tr>
<tr>
<td>B16/1Bg</td>
<td>annular</td>
<td>purple</td>
<td>colourless</td>
</tr>
<tr>
<td>B58/3Ai/Bg</td>
<td>cylinder</td>
<td>colourless</td>
<td>colourless gilt</td>
</tr>
<tr>
<td>B58/3Ag</td>
<td>globular</td>
<td>colourless</td>
<td>colourless gilt</td>
</tr>
<tr>
<td>B3/1Bh</td>
<td>globular</td>
<td>colourless</td>
<td>colourless gilt</td>
</tr>
<tr>
<td>B16/1Bg</td>
<td>annular</td>
<td>black</td>
<td>black</td>
</tr>
<tr>
<td>B3/1A</td>
<td>melon</td>
<td>opaque</td>
<td>black</td>
</tr>
<tr>
<td>B39/1Bk</td>
<td>cylinder</td>
<td>blue-green</td>
<td>dark olive</td>
</tr>
<tr>
<td>B39/1Bl</td>
<td>cylinder</td>
<td>dark olive</td>
<td>dark olive</td>
</tr>
<tr>
<td>B6/4Ag</td>
<td>cylinder</td>
<td>green</td>
<td>green</td>
</tr>
<tr>
<td>A16/4g</td>
<td>disc</td>
<td>green</td>
<td>green</td>
</tr>
<tr>
<td>B6/4Af</td>
<td>cylinder</td>
<td>green</td>
<td>yellow with red and dark green</td>
</tr>
<tr>
<td>A23/5k</td>
<td>disc</td>
<td>yellow</td>
<td>yellow and colourless</td>
</tr>
<tr>
<td>B24/1h</td>
<td>disc</td>
<td>white</td>
<td>white</td>
</tr>
<tr>
<td>A9/4g</td>
<td>disc</td>
<td>yellow</td>
<td>yellow</td>
</tr>
<tr>
<td>B66/4h</td>
<td>annular</td>
<td>yellow</td>
<td>yellow</td>
</tr>
</tbody>
</table>

There seems to be a shift from the use of antimony to manganese as a decolourant in the Roman period (Henderson and Warren 1983, 169) and it would therefore be expected that the Beckford beads would be decolourised by manganese. Antimony was detected in four beads at significant levels where it is not having an opacifying effect. Its presence may reflect the reuse of Roman glass in the manufacture of the beads, however exceptions are known where antimony was used as a decolourant in post-Roman beads (eg Henderson and Warren 1983, 169). The use of manganese as a decolourant in the majority of the Beckford beads can be seen from the iron:manganese (Fe:Mn) ratios. All the glass contains detectable amounts of iron which would have coloured the glass, unless masked by a stronger colouring agent, but its effect could be neutralised by the addition of manganese. The 'colourless' beads from graves B13 and B58 have a Fe:Mn ratio of about one, which suggests that the manganese was added deliberately in the correct proportion to decolourise the iron. However the green and blue-green beads mostly have high Fe:Mn ratios and the iron colour is dominant.

One bead from grave B16 was a translucent purple colour. This was caused by the manganese content which is high enough to drown the effect of the iron content completely, the iron:manganese ratio is well below one.

Iron-containing glass can be a range of colours depending on the atmosphere in the furnace. In slightly reducing conditions it will produce a light green or blue-green colour such as in the beads from graves A9 and A23, and graves B3 and B39. The stronger the reducing conditions the more blue the resulting glass and the bead from grave B16, in the absence of a significant quantity of copper, is likely to be coloured by iron.

Copper also produces a range of colours in glass. Copper in solution in a lead-rich glass gives a green colour as in the beads from grave A16 and grave B6. The blue and dark blue beads are all coloured by cobalt which is detectable in all cases. Cobalt is capable of producing an intense colour even when present at very low concentrations (parts per million level) and it is sometimes difficult to confirm its presence. However the cobalt blue is a distinctive deep blue colour and all six translucent blue and dark blue beads were of this characteristic blue.

The black glass beads from grave B3 have a high iron content which produces the colour. Black glass is usually produced from mixing together scraps of glass of different colours, and there is some variation in the composition of the two black beads which may support this argument.

The majority of the opaque beads contained significant levels of tin and lead. Lead does not actually produce any colour itself in the glass but it is an important part of the mechanism for the production of opaque glass as its presence allows the opacifying agent to dissolve in the melt and precipitate from it in a controlled way as it cools which produces an even colour and opacity. The opaque yellow bead from...
### Table 34 Results of EDXRF analysis

<table>
<thead>
<tr>
<th>Number</th>
<th>Col</th>
<th>Opac</th>
<th>P</th>
<th>K</th>
<th>Ca</th>
<th>Ti</th>
<th>Mn</th>
<th>Fe</th>
<th>Co</th>
<th>Cu</th>
<th>Zn</th>
<th>Pb</th>
<th>Sr</th>
<th>Sn</th>
<th>Sb</th>
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<td>0.10</td>
<td>0.51</td>
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<td>0.20</td>
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<td></td>
</tr>
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<td>0.03</td>
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<td>0.88</td>
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</tr>
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<td>0.02</td>
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</tr>
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<td>0.11</td>
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<td>0.96</td>
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<td>0.14</td>
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</tr>
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<td>B16/1Bd</td>
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<td>0.09</td>
<td>0.08</td>
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</tr>
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</tr>
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<tr>
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</tr>
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<td>0.31</td>
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<td>0.20</td>
<td>0.42</td>
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</tr>
<tr>
<td>B39/1Bk</td>
<td>BG</td>
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<td>0.16</td>
<td>0.70</td>
<td>0.05</td>
<td>0.13</td>
<td>0.81</td>
<td>-</td>
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<td>3.30</td>
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<td>3.84</td>
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<td>0.17</td>
<td>0.11</td>
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<tr>
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<td>0.66</td>
<td>4.02</td>
<td>-</td>
<td>0.16</td>
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<td></td>
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<td></td>
</tr>
<tr>
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<td>G</td>
<td>O</td>
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<td>-</td>
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<td>B6/4Af</td>
<td>G</td>
<td>O</td>
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<td>0.09</td>
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<td>-</td>
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<td></td>
</tr>
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<td>5.81</td>
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</tr>
<tr>
<td>B24/1h</td>
<td>P</td>
<td>O</td>
<td>0.02</td>
<td>0.07</td>
<td>0.48</td>
<td>0.02</td>
<td>0.03</td>
<td>0.24</td>
<td>-</td>
<td>0.29</td>
<td>0.07</td>
<td>0.04</td>
<td>0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A9/4g</td>
<td>P</td>
<td>O</td>
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<td>0.17</td>
<td>1.43</td>
<td>0.12</td>
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<td>-</td>
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<td>0.23</td>
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<td>0.12</td>
<td>0.46</td>
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<td>0.21</td>
<td>11.35</td>
<td>0.14</td>
<td>0.23</td>
<td></td>
</tr>
</tbody>
</table>

Results of EDXRF analysis, all figures normalised to silicon, except cobalt, which is either detected (+), not detected (−) or uncertain (?).

The symbols representing bead colour (in column labelled 'Col') are as follows:
- B - Blue,
- Bk - Black,
- DB - Dark Blue,
- DO - Dark Olive,
- G - Green,
- LB - Light Blue,
- LG - Light Green,
- O - Colourless,
- P - Polychrome,
- Pp - Purple,
- Y - Yellow.

The symbols representing bead opacity (in column labelled 'Opac') are as follows:
- T - Translucent,
- O - Opaque.

Grave B66 was produced by precipitating lead tin oxide. This bead must have been heated below 900 degrees centigrade as above that temperature the pigment breaks down and tin oxide is produced, giving a white colour and this reaction cannot be reversed. The opaque white bead from grave A9 has a much lower lead level than the opaque yellow bead and must have been deliberately made using tin oxide; it is not over-heated yellow. There is no evidence from Beckford for the use of antimony as an opacifier. This is expected as antimony is usually present as an opacifier in Roman beads and is replaced as an opacifier by tin in the late Roman and post-Roman glasses.

One opaque bead B66/4h (Fig 30) had a much higher lead content than the other beads, possibly as high as 20-30% lead. For this bead the method of dividing the elemental gross intensities obtained from XRF analysis by the silica figure is not completely satisfactory (as explained above), hence the high ratio figures for all other elements in these beads.
The polychrome beads were all basically opaque, though two had translucent glass added as decoration in trails. The polychrome beads were opacified by tin, as were the monochrome beads. The similarity in composition between the monochrome and polychrome beads can be used to suggest a common manufacturing tradition for the two types of bead, though there are far fewer polychrome beads at Beckford than from similar sites such as Buckland.

The interpretation of the analyses of the polychrome beads is not as simple as that from the monochrome beads as the analysis usually includes at least two colours of glass. However, in most cases the analyses show that the colourants present in the polychrome beads are consistent with what would be expected from the monochrome beads for the colours analysed.

Conclusions

The colours observed in the Beckford beads are all explicable from the composition of the glass. These compositions are similar to those from other comparable sites of this period. The production of the beads seems to follow the Germanic tradition of glassmaking which is what would be expected at Beckford. There is some evidence that antiquity continues in use as an opacifier in the Mediterranean world at this period so its absence in the majority of the Beckford beads supports the North European origin for the beads.

The similarity of evidence from other contemporary cemetery sites such as Mucking, Wakerley, Buckland, and Sewerby leads to the conclusion that the beads in circulation in this country in the Pagan Saxon period were all part of the same manufacturing tradition. They are usually associated with a northern European, Germanic tradition. This clearly reflects the dominant area of contact for Britain in this period.

The similarity of analyses of beads from the various cemetery sites means that it is now possible to predict the elements used to produce the colours in the bead assemblages of this period. It will perhaps be necessary to begin to consider the major element composition of the beads to take the study of the manufacturing traditions further and begin to identify source areas if this is possible.

Organic material associated with metalwork from cemeteries A and B

Jacqui Watson and Glynis Edwards

About 92 items selected by the excavator were examined for traces of organic material preserved in metal corrosion products and these are presented in a catalogue in grave number order. A summary of the organic material associated with different groups of metalwork is presented in Table 35. The majority of these materials were recognised with the aid of a low power binocular microscope. However, most of the wood species were confirmed by observing gold-coated samples in a scanning electron microscope (Watson 1988), and where this technique has been used the sample number is quoted in the catalogue. Some materials were previously identified at Birmingham and these have been noted. Some items, especially the shield fittings, have been conserved and a coating of lacquer and graphite applied to the surface has restricted the identification of organic material.

The largest group of objects examined were the 32 spearheads and ferrules, all of which had the remains of wood in their sockets and with the exception of 6 examples could be identified to species level. In some cases it was possible to see the annual growth rings and suggest what type of timber had been used for hafting – concentric circles and pith indicate the use of coppiced timber, whereas bands suggest the use of mature timber cut to shape. The main species represented was hazel (12), closely followed by ash (10), but this only represents 8 shafts), others include willow or poplar (3, these two woods cannot be distinguished on their microscopic structure) and a fruit wood. It was very common for spearheads to be hafted with coppiced poles, and this small sample suggests that hazel coppices were readily available.

The 20 sets of shield fittings all had traces of wood, but only 12 could positively be identified. Most appear to be made from willow or poplar (6), with alder (2), ash (1), birch (2), and lime (1) also represented. Willow/poplar was commonly used for shield construction as it is a light fine grained wood that is resistant to splitting under impact. Although the other woods are also resistant to splitting, they can weigh as much as 50% more than willow/poplar for the same thickness of shield board. Most of the shields were probably leather covered, but due to the conservation treatment used this was only confirmed on 7 sets of shield fittings. In only 3 cases could one suggest the type of grip attachment, these are described by Dickinson and Harke (1993). Two of the shields have evidence for grips made from separate pieces of wood (A2/2b, B27/1b), probably held in place by the iron grip and boss. The other shield (unidentified fragments) appeared to have a grip that was part of the shield board with 2 D-shaped areas cut out for the hand.

Most of the buckles have traces of a leather belt, but only one could be identified as possibly calf (B18/3), the rest were too degraded to identify the species from grain patterns. Three of the buckles have horn backing for the belt plate and can presumably be reconstructed like the one from Alton, Hampshire (Evison 1988, 22, Fig 7).

Only 9 knives were examined from this cemetery, 5 of which had traces of horn handles and one of wood (Pomoidae, A16/10). Horn was commonly used for hafting knives in the Anglo-Saxon period, whereas wood was rarely used for this purpose. Tool handles are almost exclusively made from wood.

Five copper alloy tubes were examined for traces of organic material and at least two had remains which could be identified. Both were filled with some
Table 35 Summary of organic material associated with different groups of objects

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<th></th>
<th>Spearheads/ Shields</th>
<th>Buckles</th>
<th>Knives</th>
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<tr>
<td>Pomoideae</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willow/Poplar</td>
<td>3</td>
<td>6</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Yew</td>
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<td>6</td>
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<td>1</td>
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<tr>
<td>Leather</td>
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<td></td>
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<tr>
<td>Horn</td>
<td>3</td>
<td>5</td>
<td></td>
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<tr>
<td>Textile</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not identifiable/no organic</td>
<td>2</td>
<td>9</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>32</td>
<td>20</td>
<td>16</td>
<td>9</td>
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</table>

inorganic material, which may have originally been white but was now discoloured by copper salts, and might be the filler for some kind of adhesive or putty which held the fibres in place. Traces of fibres were preserved in this inorganic matrix and were of two types, long coarse hairs bound by a plied thread. The coarse hairs were aligned along the length of the tube, and presumably originally extended beyond it, these have a similar thickness to pig or badger bristle but unfortunately no surface features remain to identify the species of animal they came from. The plied threads appear to be made of different fibres, (A18/3) was a bast fibre, and (B39/8) an animal fibre which is illustrated in micrographs held in the Ancient Monuments Laboratory (for fuller details refer to E Crowfoot's textile report).

The bucket mounts all had traces of mineral-pre­served wood which could be identified as yew, which was commonly used for bucket staves. Of the two vessel mounts which had wood remains only one could be identified, and this was found to be maple, a wood which was frequently used for lathe-turned vessels (A12/11b, see below p, Fig 12).

All the organic materials identified in this report were readily available in the Anglo-Saxon period.

Catalogue of examined material

Cemetery A

A2/2 Iron shield fittings with mineral preserved organic material. Both the grip and shield board are made from Fraxinus sp (ash), and the shield board has a radial section. The wooden part of the grip has been inserted between the shield board and boss rim, this can be seen quite clearly as the wood grain runs along the axis of the grip and is perpendicular to the grain of the shield board.

On the shield stud there is leather preserved between the wood and metal, suggesting that the wooden shield was originally covered with leather before the metal fittings were applied.

A2/1 Iron spearhead and ferrule with mineral preserved wood in socket, probably Fraxinus sp (ash). SEM No B293

A4/1 Iron spearhead with mineral preserved wood in socket, probably Fraxinus sp (ash).

A4/2 Iron spearhead with mineral preserved wood in socket, not well enough preserved to identify the species, but it was probably made from coppiced wood rather than mature timber. SEM No B292

A6/1c Iron shield fittings, but only the studs had sufficient mineral preserved wood to take a sample for identification, Alnus sp (alder). SEM No B312

A6/2a Iron spearhead with mineral preserved wood in socket, Fraxinus sp (ash) from mature timber.

A6/3 Iron spearhead with mineral preserved wood in socket, poorly preserved sample but one of the following – Alnus sp (alder), Corylus sp (hazel), Populus sp (poplar), or Salix sp (willow).

A8/1 Iron spearhead with mineral preserved wood in socket, Fraxinus sp (ash).
A8/2 Iron bucket binding with mineral preserved wood, *Taxus* sp (yew). SEM No B316

A8/5 Iron double strip with the remains of a leather strap preserved between them.

A11/5 Copper alloy tube with mineral preserved organic material inside which were possibly roots.

A12/5 Iron knife with remains of mineral preserved horn on tang.

A12/8 Iron strip with mineral preserved wood, but not enough to identify species.

A12/9 Iron buckle and copper alloy plate with the remains of a leather belt between the plates.

A12/11b Rim of a lathe turned vessel with neck bound by a copper alloy strip, the thickness of the vessel at this point was originally 6mm. The wood is probably *Acer* sp (maple). (This must have been a ring, not a vessel, see p 22, VE.)

A13/1 Iron spearhead with mineral preserved wood in socket, but too heavily consolidated with wax to identify the species.

A13/2c Iron mount, possibly part of shield below, with mineral preserved wood *Salix* sp (willow) or *Populus* sp (poplar). SEM No B311

A13/3 Buckle with mineral preserved organic material, but nothing diagnostic, probably small stems and lacquer. Possible patch of mineral preserved leather on the back.

A13/4 Iron knife with traces of mineral preserved horn on tang.

A14/1, 2 Iron spearheads with mineral preserved wood in sockets. In 673220 was not enough to identify species. 673221 is probably *Corylus* sp (hazel). SEM No B296

A14/4a, c Iron shield boss and studs with possible mineral preserved wood between leather and rim. Not enough wood to identify species.

A14/5 Iron buckle and plate with the remains of the leather belt, but species is unidentifiable.

A16/10 Iron knife with mineral preserved wooden handle, possibly one of the Pomoideae family which includes *Crataegus* sp (hawthorn), *Malus* sp (apple), and *Pirus* sp (plum). SEM No B303

A18/3 Copper alloy tube with mineral preserved organic material inside which appears to be made up of coarse fibres held together with a plied thread, probably made from a bast fibre. There also appears to be a dense material between the thread and the tube. SEM No B319

A18/4 Iron buckle and copper alloy plate with mineral preserved textile and possible remains of a leather belt.

A22/1a, b Iron spearhead and ferrule with mineral preserved wood in their sockets, *Fraxinus* sp (ash) made from a quarter section of a coppiced pole.

A22/2a Iron shield boss with mineral preserved wood on the rim, made from a tangential board of *Salix* sp (willow) or *Populus* sp (poplar). As the object is covered in graphite it is not possible to tell if leather is present between the wood and iron.

A25/1 Iron spearhead with mineral preserved wood in the socket, *Salix* sp (willow) or *Populus* sp (poplar).

A25/2a Iron shield boss with mineral preserved leather and wood on the rim, but too consolidated with wax to identify the species.

A25/3 Iron knife with the remains of a mineral preserved leather sheath.

A Unass, 7 Shield boss rim with mineral preserved wood and leather. Not enough wood to identify species.

A unidentified, not catalogued Three iron rivets with mineral preserved wood, probably *Fagus* sp (beech). SEM No B313

A unidentified, not catalogued Shield boss with mineral preserved leather between the iron rim and wood. The shield board appears to be made from tangential planks of *Betula* sp (birch). The wood grain on the grip is orientated the same as the shield which suggests that it has not been made from a separate piece of wood, instead semi-circles have been cut out from the shield board, and the residual strip of wood reinforced with the iron grip. SEM No B305

Cemetery B

B1/2 Copper alloy buckle with remains of leather belt, but species is unidentifiable.

B5/1 Iron spearhead with mineral preserved wood in the socket identified at Birmingham as *Fraxinus* sp (ash), and the hafting has been cut from mature timber.

B7/1 Iron spearhead with mineral preserved wood in the socket, but not enough wood to identify the species.

B7/2a Iron shield stud with mineral preserved wood, but not enough to identify the species. As the iron is covered in graphite it is not possible to see if leather is present.

B10/3 Copper alloy bucket mounts with mineral preserved wood, identified at Birmingham as *Taxus* sp (yew).

B11/1 Iron spearhead with mineral preserved wood in the socket, identified at Birmingham as *Corylus* sp (hazel).

B16/4 Copper alloy tube with no recognisable organic material remaining.

Copper alloy plates have the remains of mineral preserved horn between them. In between the iron plates are the remains of the leather belt, possibly calf, but only the top surface is left. Textile is also preserved.

B18/3 Iron buckle and copper alloy plate with no leather visible, but textile has been preserved.

B20/2 Iron spearhead with mineral preserved wood in the socket, identified at Birmingham as *Fraxinus* sp (ash), but...
using the SEM enough features were found to suggest that the wood species was Corylus sp (hazel). SEM No B298

B20/3b Small fragments of iron with mineral preserved wood, but not enough to identify species.

B27/1b Shield fittings with a small section of mineral preserved wood, Salix sp (willow) or Populus sp (poplar), remaining on the grip. The direction of the grain on the grip is perpendicular to that of the shield board, and was probably inserted between the shield board and the boss rim. SEM No B317

B29/3a Iron buckle with copper alloy plate has the remains of a leather belt, but the species is unidentifiable.

B32/1c Iron shield stud with mineral preserved wood, Alnus sp (alder). As the iron has been coated with graphite it is not possible to see if leather is also preserved. SEM No B309

B32/1e Copper alloy mount with mineral preserved wood, but not enough to identify species.

B33/1 Iron buckle with the possible remains of a leather belt, but most of the detail is obscured by small stones.

B35/1a, b Shield boss and grip with mineral preserved wood, possibly Betula sp (birch). SEM No B306

B39/3 Iron knife with surface covered in a mass of intersecting roots rather than the remains of a sheath.

B39/6 Copper alloy tube containing mineral preserved organic material which appears to be made up of coarse fibres (keratinous tissue) held in place by a plied thread of animal hairs. SEM No B320

B40/1 Iron spearhead with mineral preserved wood in the socket, too degraded to identify the species. SEM No B304

B47/1e Iron shield stud with mineral preserved wood on the reverse, but not enough to identify the species.

B47/2 Iron spearhead with mineral preserved wood in the socket, probably Corylus sp (hazel). SEM No B299

B48/5 Copper alloy tube with no recognisable organic material remaining.

B51/3a, b Shield boss and decorative fitting with mineral preserved wood, probably Salix sp (willow) or Populus sp (poplar). SEM No B308

B56/1 Iron spearhead with mineral preserved wood in the socket, identified at Birmingham as Corylus sp (hazel), and appears to have been made from coppiced timber.

B57/1 Iron spearhead with mineral preserved wood in the socket, identified at Birmingham as Corylus sp (hazel). SEM No B295

B57/2 Iron mount with mineral preserved horn on the reverse, possibly part of 154 below.

B57/3 Iron buckle with mineral preserved horn between the plates.

B57/5 Iron knife with mineral preserved horn handle. (Previously identified as bone at Birmingham.)

B60/1 Iron spearhead with mineral preserved wood in the socket, identified at Birmingham as Fraxinus sp (ash).

B61/3 Iron buckle and copper alloy plate with remains of leather belt passing through loop, and mineral preserved textile.

B64/1a Iron shield boss with mineral preserved wood and possibly leather preserved between them on the rim. The wood was possibly Salix sp (willow) or Populus sp (poplar). SEM No B314

B64/2 Iron spearhead with mineral preserved wood in the socket, Fraxinus sp (ash) from mature timber.

B68/5 Iron buckle with possible remains of a leather belt, but very degraded. Mineral preserved textile.

B71/2 Fragments of elephant ivory purse ring with copper alloy mounts.

B72/2 Iron spearhead with mineral preserved wood in the socket, probably Corylus sp (hazel) made from coppiced wood. SEM No B294

B74/5 Iron knife with mineral preserved horn handle.

B74/9 Organic backing is antler.

B77/2b Shield fragments, but not enough mineral preserved organic material to identify wood species, or note if leather is present.

B77/2e Iron shield studs with mineral preserved wood, but too degraded to identify the species.

B81/4 Stave built bucket bound with copper alloy. Wood identified at Birmingham as Taxus sp (yew).

B84/1 Iron buckle and copper alloy plate with possible remains of a leather belt and textile.

B84/5 Iron spearhead with mineral preserved wood in the socket, possibly Corylus sp (hazel) made from coppiced wood. SEM No B301

B85/2 Iron knife with mineral preserved horn handle. (Previously identified at Birmingham as bone.)

B92/1c Two shield studs with mineral preserved wood, Salix sp (willow) or Populus sp (poplar). SEM No B318

B93/1 Iron spearhead with mineral preserved wood in the socket, possibly one of the Pomoideae family such as Crataegus sp (hawthorn), Malus sp (apple), or Pirus sp (pear). SEM No B301

B94/1b Iron shield fittings with mineral preserved wood, Tilia sp (lime). SEM No B310

B94/2 Iron spearhead with mineral preserved wood in the socket, probably Salix sp (willow) or Populus sp (poplar). SEM No B290
flange is all at right angles to the direction of the grip. On right shoulder.

b Strap grip, expanded ends. L 12.2cm +.
c Two pairs of iron disc-headed rivets, each pair connected at the back by an iron strip, each disc diam 3cm. Each side of boss, c 26cm apart, penetrating wood 7mm thick.

2 A Spearhead, angular blade depressed on left side of each face, rivet across socket. Wood Fraxinus sp (ash, p 71). L 30.2cm. On left shoulder.

b Conical ferrule, folded (lost). L 7cm. Outside left ankle.

3 Spearhead, blade corroded, split socket. Wood (p 71). L 18.4cm. Under and parallel to 2.

4 Knife. L 11cm. On sacrum, point down.

Grave 7 (Figs 9, 41)

Female 25–40. 150°

6ft x 2ft x 3ft (1.83m x 0.61m x 0.99m)

Skull down to right, left arm bent with hand on right shoulder. Left shin crossed over right shin.

1 Iron tannular brooch fragments. Diam 3.5cm. Right shoulder.

2 Iron tannular brooch and pin fragments. Diam c 4cm. Left chest.

3 Beads: Amber: a 1 small roughly-shaped Glass: b 1 globular very light green translucent drawn triple; c 2 globular colourless gilt drawn. At neck.

4 Knife, fragmentary. L 13.5cm+. At left waist.

5 Iron ring. Diam 2.7cm. By knife tang.

6 Flat bronze fragment, rivet hole in middle and trefoil end. L 3.1cm. Beneath 5.

7 Head of an iron pin, shepherd's crook shape (drawn from radiograph.). L 1.3cm. With beads 3.

Grave 8 (Figs 10, 41)

Male 25–35. 71°

7ft x 2ft 3in x 3ft (2.13m x 0.69m x 0.91m)

Cut into on one side by Grave 5.

Skull left, right arm bent with hand in pelvis.

1 Spearhead, angular blade, long socket. Wood Fraxinus sp (ash, p 000). L 22.6 and 10.5cm. Left of skull.

2 Iron-bound bucket, top hoop 1.8cm wide, middle hoop 0.9cm, lowest hoop 1cm wide. Two hooks, remains of handle. Wood Taxus sp (yew, p 71). Ht c 9.5cm, diam 9.2 to 10.7cm. Left of skull, between spear and edge of grave.

3 Knife. L 16.5cm.

4 Bronze ear-scoop on ring. Total L 7.5cm.

5 Iron strip, 1.6cm wide at one end and bent over an iron ring, narrow and thickened at the other end. Leather remains on inner surface, (p 72). L 7.8cm.

6 Double bronze strap end, nicked edge decoration. L 4.2cm. Items 3–6 at left waist.

Grave 9 (Figs 10, 41)

Female 25–30. 338°

6ft 3in x 1ft 10.5in x 3ft (1.91m x 0.57m x 0.91m)

On left side, both arms slightly bent forward.

1 Bronze swastika disc brooch as 2 (lost, drawn from photograph). Diam 4.3cm. Right shoulder.

2 Bronze openwork disc brooch with swastika design (Pl IIb), ring-and-dot stamped decoration on the swastika, two borders of pellet-in-triangle stamps on the ring. Diam 4.2cm. Above left shoulder, on edge under chin.

3 Iron pin, shepherd's crook head (drawn from radiograph). L 3.6 and 2.4cm. Left shoulder.

4 Beads: Amber: a 5 small roughly-shaped and fragments; b 3 flat; c 3 small flat, lengthwise perforation

Glass: e 1 cylinder dark blue translucent drawn; f 1 globular very light green translucent drawn triple; g 1 disc white, striped with dark blue translucent trail.

Amongst bones top chest.

5 Part iron ring. Diam c 8cm.

6 Bronze ring, overlapping ends. Diam c 4cm.

7 A iron disc with centre perforation. Diam 3.5cm.

b Iron ring. Diam c 3.5cm.

8 Fragment of iron wire ring. Diam c 2.5cm.

9 Iron key fragments. L 6.2cm.

Fossil shell. Pycusdonta sp (fossil oyster). Identified by Dr C H Brunton, Department of Palaeontology, British Museum (Natural History).

5–9 inside top left femur.

Grave 10 (Fig 42)

Young infant. 342°

Depth 2ft 6in (0.76m)

Skull left, a few arm bones and ribs and one femur.

No finds.

Grave 11 (Figs 11, 42)

Female 25–30. 78°

6ft 9in x 2ft 6in x 3ft (2.06m x 0.76m x 0.91m)

Skull left, left arm slightly bent with hand beside pelvis, the right side of the body disturbed, right arm missing. Right tibia, right foot and left toes disturbed.

1 Gilt bronze applied brooch (Pl IIa), faint decoration on front plate, a geometric wheel design in the centre with a border of animal ornament outside. Concave back plate, remains of iron pin, bronze pin holder and catch fastened by iron rivets. Remains of mastic between front and back plate. Diam 4.7cm. On right shoulder. A loose disc of white material, diam 4mm, 2mm thick, may have occupied the centre of this brooch.

2 Bronze applied brooch, concave back plate, bronze pin catch and holder fastened with iron rivets. Fragment of front plate with Style I animal ornament. Diam 4.8cm. On left shoulder.

3 Gilt bronze square-headed brooch (Pl IIa), perforated border to head of triangles and half circles, four-spiral whirliigig motif in each top corner, a ring-stamped outer and inner border; inner panel of middle mask, two legs below and two whirliigigs above, surrounded by a zone of schematic Style I animal ornament, two animals descending with heads in the lower corners. Bow with deep vertical grooves and middle beading. The divided foot has downward-biting animal heads, the upper jaw with animal head termination. There is a mask at the top of the dividing ridge and two at the bottom. The bottom mask is bearded and has frames of chain design, bending and ring-stamped outer border. The chip-carved panels are better executed than on the head and, although muddled, heads and legs are visible. A tall, waisted studd is fixed in each terminal. Remains of an iron pin. L 14.3cm. Horizontal on top chest, foot pointing left.

4 Bronze rectangle decorated with double line border, diagonal cross and crescent stamps in a vertical cross. A perforation in each corner with a ring in each, two oval spangles and one circular spangle remaining on three of the rings. The rectangular 2.5cm x 2.2cm. Partly under 1.

5 Bronze conical tube, three zones of decorative lines, remains of perforation at narrow end. L 7.4cm. Left shoulder.

6 Beads: Amber: a 6 small roughly-shaped; b 35 roughly-shaped; c 3 small triangular section
From right shoulder across left chest and inside left humerus.
7 Iron ring. Diam 3.2cm. Under left forearm.

Grave 12 (Figs 11, 12, 42)
Female 25–35. 340°
7ft x 2ft 3in x 3ft 4in (2.13m x 0.65m x 1.02m)
Left hand missing.
1 a Gilt bronze saucer brooch (lost) five-spiral chip-carved design with wide border. Photograph shows well-preserved gilding (Pl IIa). Diam 4.6cm. Standing on its edge at left shoulder.
b Iron pin fragments, L 1.1cm and 1.4cm, found with beads may belong to 1a.
2 Bronze pin, flat head with perforation and loose ring S-stamps in cable fashion on both sides of head. L 10.4cm. Top left chest.
3 Knife. L 12cm. Horn on tang, (p 72). Left elbow.
4 Beads: Amber: a 2 very small roughly-shaped; b 29 small roughly-shaped; c 11 roughly-shaped; d 1 small wedge-shaped; e 1 wedge-shaped; f 3 large wedge-shaped; g 2 flat; h 1 large flat; i 4 very small flat, lengthwise perforation (not illustrated); j 9 small flat, lengthwise perforation; k 1 very small, triangular section (not illustrated); l 13 small, triangular section; m 2 triangular section
Glass: n 1 cylinder dark blue translucent drawn; o 1 globular very light green translucent drawn; p 1 globular very light green translucent drawn double.
Over chest to below pelvis.
5 Bronze ring, decorated on both faces with arc stamps. Diam 2.1cm. With large beads 10cm above grave floor. Right waist.
6 Gilt bronze disc (lost, Pl IIIa) mask with three vertical lines in middle of crown, asymmetrical nose and mouth. A perforation off-centre of crown; a rivet stump off-centre on back. Diam 1.5cm. Sieved from chest area.
7 Bronze strap end, squared one end with perforation and transverse line decoration; the other near rounded end. L 2.4cm. Sieved from chest area.
8 Iron strip with right angle bend, wood traces inside. L 2.1cm. Sieved from chest area.
9 Circular iron buckle loop and tongue, rectangular bronze double plate with border of repoussé dots and row of three perforations along middle. L 4.6cm. Right waist near vertebrae. Remains of leather belt between the plates (p 72).
10 Ivory ring. Diam c 11cm.
11 a Bronze strip ring fastened with rivets to b
b Turned wooden ring, 6mm thick, probably Acer sp (maple, p 72). Diam c 7.5cm.
12 Iron ring. Diam 6cm.
13 Iron ring. Diam 3.4cm.
14 Tinned bronze spoon with one perforation at end. L 5.1cm.
15 a Iron key fragment rolled over at top and right-angled end. L 15.2cm.
b Flat key shaft. L 13.8cm.
c Top of key shaft. L 3cm.
d Key fragments, top and bottom, suspended from ring 13. L 4.5cm and 4.7cm.
e Other iron key fragments.
The ivory ring (10) with bronze ring (11) and iron rings 12, 13 inside, the iron shaft (15b) running diemetrically under the ivory ring and over the bronze ring. Items 10–14 partly under left femur, key fragments near and key 15a extending below knee, bronze spoon 14 below all in the middle of the rings.

Grave 13 (Figs 13, 42)
Male 35–45. 348°
5ft 6in x 2ft 6in x 3ft (1.68m x 0.76m x 0.91m)
On right side, both arms bent with hands near right shoulder, excrescence on left femur.
1 Spearhead, angular blade, rivet across socket. L 35.2cm. Right of skull, above grave, pointing towards feet.
2 a Shield boss, small button top, straight dome, narrow waist, wide flange, small bronze washer under flange, five disc-headed rivets. Wood Salix sp (willow) or Populus sp (poplar, p 000). Ht 8.9cm, diam 16cm. Over neck.
b Two iron disc-headed rivets connected at the back with an iron strip, each diam 2.8cm.
Inside left elbow, c 10cm from edge of boss.
c Iron square under right humerus. Rivet stud at back and wood traces. 2.3cm x 2.3cm. c 10cm from edge of boss.
3 Iron buckle loop and tongue. Diam 2cm. In mouth.
4 Knife, type 1, a welding line is visible on radiograph along middle of blade. Mineral-preserved horn on tang, (p 72). L 16.2cm. On top of pelvis.
5 Iron buckle loop and tongue. Diam c 3.4cm. With item 4.

Grave 14 (Figs 13, 42)
Male 28–35. 344°
7ft x 3ft 3in x 3ft 6in (2.13m x 0.99m x 1.07m)
30cm above the floor of the grave there were some large stones reddened by fire in the foot half of the grave, and lying on them, parts of an animal jaw and skull. At the foot of the grave was a loose human heel bone, and at the head the projecting tips of two spearheads.
Skull right, left arm across waist. The bones of the feet were missing, the right tibia displaced and rat bones found in the grave may explain the displacement.
1 Spearhead, angular blade, rivet in socket. L 30.5cm.
2 Spearhead, angular blade. L 29cm. Wood probably Corylus sp (hazel, p 72).
1 and 2 together, ahead of skull, 30cm above floor level, slanting upwards.
3 Bronze ring binding to wooden vessel (lost, reconstruction drawing from index card). A ring of a flat strip of bronze 1cm wide was standing in a horizontal position c 7.5cm above the floor of the grave, presumably the rim in situ of a decomposed wooden vessel. Diam c 9cm. There was one perforation in the strip.
4 a Shield boss, broken ?spike top, concave dome, wide flange, rivets not visible. Mineral-preserved leather between wood and rim, (p 72). Ht 7.5cm, diam c 14cm. On left shoulder.
b Strap grip fragment. 8.6cm x 2.2cm.
c Four iron disc-headed rivets, one on chin and one below, two others on the opposite side of the boss. Remains of wood with leather between wood and the disc. Diam 4.2cm. Depth of wood penetrated by the rivet 9mm. Each pair on opposite sides of the boss, one pair 15cm from edge of boss, the other pair 5cm from edge of boss.
d Narrow iron strip (lost, not illustrated) between discs and boss on left shoulder. L c 7.5cm.
5 Iron buckle loop and double rectangular plate, fastened at the back with a square bronze washer. L 4.2cm. Tongue fragment L 2.6cm. Remains of leather strap (p 72).
Outside left humerus.

Grave 15 (Figs 14, 42)
?Female juvenile 8. 348°
5ft 6in x 2ft 1.5in x 2ft (1.68m x 0.65m x 0.61m)
Grave 5 (Figs 18, 44)
Male young adult. 350°
6ft x 2ft x 2ft 7in (1.83m x 0.61m x 0.79m).
Both arms bent, left ankle over right.
1 Spearhead, angular, split socket with one or two rivets. Mineral-preserved wood Fraxinus sp (ash, p 72). L 32.6cm. Left of skull, slanting upwards, tip 20cm above body.
2 a Shield boss, small button top, slightly convex dome, wide waist and flange, five disc-headed rivets. Diam 17.1cm, ht 8.2cm. On right pelvis.
b Strap grip with wider ends, piercing wood 1.1cm thick. L 9cm and 3.4cm.
3 Knife, type 1. L 9.8cm. Outside left forearm, 5cm above floor.

Grave 6 (Figs 18, 19, 44)
Female young adult. 339°
5ft 2in x 1ft 11in x 2ft 7in (1.68m x 0.58m x 0.79m).
Skull right, right hand on right shoulder, left arm bent in, right leg slightly bent.
1 Bronze disc brooch (pl Vd), slightly convex surface, central ring-and-dot surrounded by five ring-and-dot stamps, nicked edge. Remains of iron pin. Diam 3.9cm. Right shoulder.
2 a Bronze rectangular plate fragment with openwork triangles, rivet at one end. Front surface scratched, ?keyed. L 1cm x 1.5cm.
b Bronze sheet strip with two rivet holes. 3.4cm x 1.6cm. 2a and b with 1.
3 Bronze disc brooch, flat, central double ring-and-dot surrounded by six ring-and-dot stamps (front partially obscured by iron rust). Remains of iron pin. Diam 3.7cm. Left shoulder.
4 Beads: A Amber: a 14 very small roughly-shaped; b 19 small roughly-shaped; c 6 very small flat, lengthwise perforation; d 5 small flat, lengthwise perforation; e 1 small almond-shaped (broken);
Glass: f 1 small short cylinder light green; g 1 coiled cylinder dark olive green translucent; h 4 globular very light green translucent drawn; 12 globular very light green translucent drawn double; j 3 globular colourless silvered drawn; k 2 globular colourless silvered drawn double; l 1 globular colourless silvered drawn triple; m 1 globular colourless silvered drawn quadruple; n 1 globular colourless gilt drawn double; o 5 globular colourless gilt drawn triple. At neck.
B Amber: a 3 very small roughly-shaped; b 28 small roughly-shaped; c 1 roughly-shaped; d 1 large wedge-shaped; e 1 pentagonal flat; f 5 small flat, lengthwise perforation
Crystal: g 1 large disc
Glass: h 1 globular very light green translucent drawn; i 2 globular colourless silvered drawn; j 1 globular colourless silvered drawn triple; k 2 globular colourless gilt drawn; l 2 globular colourless gilt drawn double; m 2 globular colourless gilt drawn triple; n 1 globular colourless gilt drawn quadruple. On left side, shoulder to waist, with g at shoulder and d at waist.
C Amber: a 16 small roughly-shaped; b 4 small flat, lengthwise perforation. On right side, inside forearm.
5 Knife, angled back, type 3. L 10cm and 1.9cm. Mid waist.
6 Iron buckle loop and tongue, rectangular plate with bronze washer. Diam loop 2.6cm, plate 4.4cm x 2cm.
7 Bronze strap end, roughly-shaped strip folded and fastened with one rivet. 3.2cm x 1.3cm. With 6, mid pelvis.
8 Bronze rectangular plate, rolled at each end, pierced by two rivets each with a washer (lost), two borders of repoussé dots. 3.6cm x 1.8cm. Right pelvis.
9 a Square bronze plate. 3cm x 2.9cm.
b Bronze disc-headed rivet, square Shank.
c-g. Five bronze Romano-British coins.
h Fragment of light blue-green glass ?cone base fragment. L 1.5cm.
9a--h outside left knee.

Grave 7 (Figs 19, 44)
Male 25-35. 157°
4ft 7in x 1ft 10in x 2ft 4in (1.4m x 0.56m x 0.71m).
On right side, both arms slightly bent, both legs bent at an acute angle.
1 Spearhead, angular, split socket with rivet. L 23.2cm. Right of skull, a few centimetres above floor level, the tip slanting upwards.
2 a Shield boss, button top, flat dome, vertical waist, wide flange with four disc-headed rivets. Diam 15.2cm, ht 7.4cm.
b Grip, upturned in middle, diamond-shaped ends with disc rivets, broken. L 14cm+. Over neck.
c Iron disc-headed rivet. Diam 3.4cm. On skull.
d Iron disc-headed rivet. Diam 3.6cm. Rivet undering 9mm. Under skull.
e Iron disc-headed rivet. Diam 3.4cm. On left shoulder, c 1.1cm above bone.
f Iron disc-headed rivet. Diam 3.6cm. Above bone, left ribs.

Grave 8 (Figs 20, 44)
Female ?young adult. 25°
5ft 3in x 1ft 11in x 1ft 10in (1.6m x 0.59m x 0.86m).
Skull right, right arm bent in.
1 Gilt bronze saucer brooch (pl IVa), eleven spirals round a central hollow boss with beaded border, outer border of U-shaped stamp. Diam 4.8cm. On right shoulder.
2 Bronze applied saucer brooch with perforation in centre. Remains of a gilt bronze repoussé plate with beaded border and undifferentiable design. Diam 6.4cm. Left shoulder.
3 Bronze pin, ring head with ribbing above. L 10.5cm. Head under 1.
4 Two fragments of iron plate, one end rounded with a rivet on each. L 3.2cm and 1.4cm. Under right ribs.
5 Iron buckle loop. Diam 3.1cm. Small fragment ?tongue, L 1cm. Left pelvis.

Grave 9 (Fig 44)
Female juvenile. 353°
Depth 1ft 6.5in (0.47m). Left arm bent in, left ankle crossed over right. Adult according to the bone report, but the grave plan shows a height of only c 4ft. No finds.

Grave 10 (Figs 20, 44)
?Female adult. 360°
Half on right side with skull turned left, left arm bent, both legs bent to right.
1 Iron buckle loop and tongue (and iron ?ring fragment not illustrated). Diam 2.8cm. Right pelvis.
2 Bronze sheet fragment. L 2.3cm. Inside left humerus.
3 a Bronze-bound bucket fragments. Three bronze strips 1.2cm wide fastened to a bronze sheet fragment 2.2cm wide. The longest strip (L 8.2cm) is a vertical band, four perforations along the mid line, two empty, one with bifurcating bronze staple, one with iron rivet.
b Bronze strip fragment with another strip riveted to it and a U-sectioned rim over both. L 3.3cm. Fragment of a U-sectioned rim. L 2cm.
c Bronze strip fragment with iron rivet. Width 1.4cm.
d Two bronze staples. L 9mm (one illustrated).
e Bronze strip, decorated with two borders of punched dots. L 4cm. Fragments of wood Taxus sp (yew, p 71). At left pelvis.
f Two bronze fragments each with rivet. L 1.7cm, 1cm.

Grave 11 (Figs 20, 44)
Male adult. 339°
Depth 2ft 6in (0.76m)
Right forearm across waist, left arm slightly bent, both legs bent to left.
1 Spearhead, angular, split socket, rivet visible on radiograph near end. Mineral-preserved wood Corylus sp (hazel), p 72). L 20.2cm. Right and ahead of skull.
2 Iron fragment, bent. L 2.3cm. Right of spearhead.

Grave 12A (Figs 20, 44)
Female 18–20. 348°
Depth 2ft 5in (0.74m)
Skull fallen with jaw on right shoulder, left arm bent.
1 Bronze mount (pl Vf) for a ?bowl, converted with an applied spring holder for use as a brooch, T-shaped, the slightly curved top bar decorated with ribbing and double loops, a grooved long panel with a half-mask terminal and spatulate foot. An animal head on one side of mask and bird's head on the other. L 8.5cm. Right of jaw of 12A.

Grave 12B (Fig 44)
Juvenile 11–12.
Close to left side of A on right side with legs slightly bent. No finds.

Grave 13 (Figs 20, 44)
Female juvenile 10–11. 351°
Depth 2ft 10in (0.86m)
Grave edge visible on left of body only. On right side, left arm bent with hand on shoulder, both legs bent to right.
1 Beads: Amber: a 5 small roughly-shaped; b 2 small flat, lengthwise perforation.
Glass: c 1 globular drawn (lost, not illustrated); d 1 cylinder colourless drawn beaded.
a–c in skull, d 5cm below left shoulder.

Grave 14 (Figs 20, 44)
Female adult. 337°
Depth 1ft 10in (0.56m)
Top part of body missing, right arm bent across pelvis, left leg slightly bent with right ankle over left.
1 Beads: Amber: 3 small roughly-shaped. To left of pelvis.

Grave 15 (Fig 44)
?Adolescent. 351°
Depth 2ft 2in (0.66m)
Fragmentary, legs slightly bent to right.
No finds.

Grave 16 (Figs 21, 45)
Female adult. 344°
Depth 2ft 2in (0.66m)
On right side, right arm slightly bent, no legs remaining.
1 Beads: A Amber: a 3 small roughly-shaped, one with second perforation (not illustrated); b 2 small flat, lengthwise perforation. From skull to waist.
B Amber: a 17 small roughly-shaped (one lost); b 3 small wedge-shaped; c 2 wedge-shaped.

Glass: d 1 disc light blue translucent; e 1 annular blue translucent; f 2 annular dark blue translucent (one lost); g 1 annular pink-brown translucent; h 1 globular drawn quadruple (lost, not illustrated). At waist, two of a and d fused onto catch of brooch under bones at waist.
2 Bronze square (pl Vg), decorated with four repoussé knobs and four smaller repoussé knobs in between. A border of double triangle stampe with three pellets in each triangle. A hole in each corner, each with a bronze ring, two hold a bronze tag, one holds a bronze tag and fragments of another. 3.7cm × 3.6cm. At waist.
3 Small long brooch, cruciform with flat knobs, spatulate foot with ring stamps. L 7cm.
4 Conical folded bronze tube. L 5.1cm+
5 Part iron ring. Original L 2.4cm.

Grave 17 (Figs 21, 45)
Female adult. 340°
Depth 2ft 7in (0.79m)
On right side, both arms bent in across waist, both legs slightly bent to right, left shin crossing right.
1 Bead: Amber: 1 (lost, not illustrated). In skull.
2 Iron buckle loop, tongue and plate. L 3.6cm. Mid chest.

Grave 18 (Figs 21, 45)
?Male adult. 319°
Depth 1ft 6in–2ft 4in (0.46m–0.71m) at head. Bones disturbed.
1 Knife, L 8.2cm. Found by workmen about mid body.
2 Iron buckle loop and tongue, bronze double plate with nibbed border and one rivet. L 4.8cm.
3 Double iron plate with single projection hinges on bar with double bronze plate, nibbed edges, with double projection. Mineral-preserved horn between the bronze plates and remains of leather, possibly calf, between the iron plates (pp 64, 72). L 6.8cm. 2 and 3 in chest area.

Grave 19 (Figs 21, 45)
Juvenile 7–8. 343°
Depth 2ft 2in (0.66m)
Skull fallen forward, right arm bent with hand on right shoulder, left arm bent across waist, both legs slightly bent to left.
1 Knife, L 13.4cm. Parallel to right humerus.

Grave 20 (Figs 22, 45)
Male adult. 351°
Depth 2ft 10in (0.86m)
Skull left, left arm slightly bent, left ankle over right, feet upright.
1 Knife, fragmentary. L 7.9cm. Inside right humerus.
3 a Shield boss fragments spike top, straight dome, vertical
waist, narrow flange, possible original damage perforation in dome. Diam c 13.6cm, ht c 8.4cm. On left humerus. 
b Small iron rivet and other small fragments (not illustrated).

Grave 21 (Fig 45)
Juvenile 11–12. 380°
Depth 2ft 6in (0.76m)
Skull fallen on chest, right arm slightly bent, right leg slightly bent, lower arm and leg missing.
No finds.

Grave 22 (Figs 22, 45)
Female juvenile 8–9. 352°
Depth 2ft 3in (0.69m)
On right side, right arm bent with hand on chest, both legs sharply bent to right.
1 Bead: Amber: 1 small roughly-shaped. In skull.

Grave 23 (Fig 45)
Male adult. 339°
Depth 1ft 9in (0.53m)
Right arm bent across waist, both legs slightly bent to right. Skull and feet disturbed. No finds.

Grave 24 (Figs 22, 45)
Female young adult. 349°
Depth 10.9in (0.53m)
On right side, arms and legs slightly bent.
1 Beads: Amber: a 20 small roughly-shaped; b 7 roughly-shaped; c 2 wedge-shaped; d 1 flat; e 3 small flat, lengthwise perforation; f 4 small, triangular section
Glass: g 1 globular colourless drawn double; h 1 disc colourless, yellow swirls. Above, round and under head.
2 Remains of an appliqued brooch: a Bronze applied spring holder. L 1.8cm.
b Bronze pin catch. L 0.8cm.
c Bronze fragment. L 2.2cm. At neck.

Grave 25 (Figs 22, 45)
Male young adult. 343°
Depth 2ft (0.61m)
Skull right, both arms bent, right knee 15cm above floor with right tibia crossed over left tibia.
1 Knife. L 11.6cm. (Lost, drawn from index card.) Parallel to right forearm.

Grave 26 (Figs 22, 45)
Female adult. 341°
Depth 2ft 6in (0.76m)
Fragmentary, skull right, right tibia crossed over left.
1 Iron pennanular brooch with curled terminals. Diam 5.6cm. Right shoulder.
2 Iron annular brooch with pin. Diam c 2.5cm.
3 Bronze sheet square with repoussé dot border and diagonal cross, a perforation in each corner. 2.5cm x 2cm.
4 Double bronze plates with dot stamp border on top plate, fixed by two iron rivets. L 3cm. 2–4 in skull.

Grave 27 (Figs 22, 45)
Male? 735–50. 354°
Depth 2ft 6in (0.76m)
Skull fallen forward, both arms slightly bent, right leg slightly bent.
1 a Shield boss, spike top, concave dome, sharp carination, wide flange, one bronze disc-headed rivet remaining of five original rivets with bronze washer inside. Diam 14cm, ht 11.3cm. On top of hands at right pelvis.
b Strap grip with expanding ends. Mineral-preserved wood Salix sp (willow) or Populus sp (poplar, p 73). L 5.4cm and 5.5cm.
c Iron strip. L 6.8cm. Other small iron fragments (not illustrated).
d Iron plate with disc-headed stud. L 4cm. Outside left forearm.

Grave 28 (Figs 22, 45)
Female young adult. 356°
Depth 2ft 4in (0.71m)
Both arms and legs slightly bent.
1 Knife fragment. L 11.3cm.

Grave 29 (Figs 23, 45)
Female adolescent. 356°
Depth 2ft 4in (0.71m)
Skull right, both forearms across waist.
1 Silver finger ring, one end squared, the other rounded, rivet hole at each end, line borders. Diam c 1.7cm. Right pelvis.
2 Beads: A Amber: 1 small flat, lengthwise perforation. At left waist with iron complex b. B Amber: a 3 very small roughly-shaped (not illustrated); b 88 small roughly-shaped; c 1 small wedge-shaped; d 1 wedge-shaped; e 23 small flat, lengthwise perforation. On chest.
C Amber: 2 very small roughly-shaped. Adhering to buckle 3.
3 a Iron buckle loop and tongue, bronze plate with three iron rivets and decorated with repoussé dot borders. Remains of leather (p 73). L 7.5cm.
b Double bronze tongue-shaped strap end, iron rivet at square end. L 3.2cm.
c Bronze plate with three perforations. L 2.3cm. Right pelvis.
4 Iron annular brooch fragments. Diam 3.8cm. Left shoulder.
5 Iron annular brooch. Diam 4cm. Right shoulder.
6 Bronze strip, round one end, square the other, two cast rivets at back, open slot in middle. L 6.2cm. Outside left humerus.
7 Bronze strip, repoussé dot border. 5.5cm x 2.1cm. (Lost, drawn from index card.) Between top femurs.
8 a Two iron rings. Diam 6cm and 5.2cm.
b Iron ring with looped tab. Ring diam 4cm, tab L 4.5cm.
c Iron pin adhering to b. L c 5.5cm.
d Iron strip, broken, with perforation. 4.6cm x 2.4cm.
e Iron ring. Diam 2.7cm.
f Bronze ring. Max diam 2.4cm. d, e and f adhering and had been strung together.
g Double iron strip. L 3.5cm.
h Iron ring fragment. Diam 2.3cm.
i Iron shaft with curved end. (Missing.) L 3.3cm.
j Iron ring fragment. L 2.8cm.
k Iron strip. L 3.1cm.
l Iron shaft, square section, right-angled bend. (Missing.) L 1.7cm. Left pelvis.

Grave 30 (Figs 23, 45)
Female adolescent. 347°
Depth 2ft 2in (0.66m)

Grave 31 (Figs 23, 45)
Female adult. 348°
Depth 2ft 4in (0.71m)
On right side, both arms bent, legs bent at acute angle.
1. Bronze saucer brooch with an applied disc ornamented with radiating ribs round a central bead. Diam 3.7cm. Right shoulder.

Grave 32 (Figs 23, 46)
Male adolescent. 177. 355°
Depth 1ft 8in (0.51m) Skull disturbed, on left side, left arm bent at acute angle, right arm slightly bent, both legs slightly bent, right femur crossing left femur.
1. Shield boss, button top, straight dome, tall vertical waist, two remaining of four disc-headed rivets. Ht 9.5cm, diam 13cm.
2. Grip fragment with expanded end and disc-headed rivet. L 4.2cm.
3. Two iron disc-headed rivets, piercing wood 6mm thick and joined by iron strip at back. Wood grain parallel to strip. Alnus sp (alder, p73). Diam each 2.9cm. Top of left humerus.

Grave 33A (Figs 24, 46)
Juvenile 5-6. 322°
Depth 2ft 7in (0.79m)
Right arm slightly bent, body bent at hips.
1. Oval iron buckle loop and tongue. Diam 4cm. Beside left tibia.

Grave 33B (Fig 46)
Juvenile 22.
On left side, both arms and legs bent. No finds.

Grave 34 (Figs 24, 46)
Female adult. 360°
Depth 2ft 10in (0.86m)
Right arm bent, hand in pelvis.
3. Beads: Amber: a 1 wedge-shaped; b 32 small almond-shaped; c 14 almond-shaped
Glass: d 1 annular dark blue translucent; e 1 globular colourless drawn double; f 2 globular colourless silvered drawn triple; g 2 globular colourless gilt drawn triple. On chest.
4. Nail fragment. L 2.4cm. Top of left humerus.

Grave 35 (Figs 24, 46)
Male adult. 323°
Depth 2ft 2in (0.66m)
1. Shield boss, button top, convex dome, narrow waist, five disc-headed rivets. Mineral-preserved wood possibly Betula sp (birch, p73). Ht 9cm, diam 17cm.
2. Grip with expanding ends. L 15cm. On right shoulder.
3. Spearhead, small, leaf-shaped blade. L 15.4cm. Outside right elbow pointing up.

Grave 36 (Figs 24, 46)
Female 25-30. 344°
Depth 2ft 9in (0.84m)
Skull left, right forearm across waist, left arm bent with hand near right shoulder.
2. Bronze disc brooch, as 1, but six ring-and-dot stamps as border. Diam 4.4cm. Left shoulder.
4. Beads: Amber: a 18 roughly-shaped; b 20 wedge-shaped
Crystal: c 1 large disc faceted. From neck to right pelvis, the crystal near the lower end.

Grave 37
Adolescent. 348°
Lower leg bones only. No finds.

Grave 38 (Figs 25, 46)
Female 35-45. 355°
Depth 2ft 2in x 2ft x 1ft 1in (0.61m x 0.86m)
Skull to right and 5cm above floor, right arm slightly bent, left arm bent with left hand mid chest and doubled back under forearm.
1. Saucer brooch. As 3. (Lost, drawn from index card and photograph, pl IV.) Diam 6.5cm. Left shoulder.
2. Beads: Amber: a 6 very small roughly-shaped; b 2 small roughly-shaped; c 3 wedge-shaped. At neck.
3. Gilt bronze saucer brooch, disc-headed stud in centre, surrounded by radiating ribbing and star design, border of mask and leg alternating, with divisions at irregular intervals. Diam 6.5cm. Under top left femur.

Grave 39 (Figs 25, 26, 46)
Female young adult. 346°
Depth 3ft 6in (1.14m) Skull left, body bent at hips.
1. Beads: A Amber: a 19 very small roughly-shaped; b 41 small roughly-shaped; c 10 roughly-shaped; d 2 very small wedge-shaped; e 3 small wedge-shaped; f 9 wedge-shaped; g 5 flat
Crystal: h 1 large disc
Glass: i 2 annular blue; j 1 small short cylinder green; k 8 cylinder blue drawn; l 11 globular colourless drawn double; m 1 disc white, striped with dark trails; n 3 large short cylinder reticella. (Lost, not illustrated, descriptions from laboratory admission photograph, index card and notebook.) From left shoulder to waist to right shoulder.
A Amber: a 19 very small roughly shaped; b 12 small roughly-shaped; c 1 roughly-shaped; d 4 small wedge-shaped; e 1 wedge-shaped; f 2 small flat; g 1 flat; h 17 very small flat, lengthwise perforation; i 1 small flat, lengthwise perforation
? Bone: j 1 short cylinder
Glass: k 3 very small short cylinder blue-green; l 1 coiled cylinder dark olive green translucent; m 2 cylinder dark blue translucent drawn; n 2 cylinder dark blue translucent drawn twisted; o 27 globular very light green translucent drawn; p 1 cylinder very light green translucent drawn (broken, not illustrated); q 7 globular colourless drawn; r 6 globular colourless drawn double; s 18 globular colourless silvered drawn; t 3 globular colourless silvered drawn
double; u 1 globular colourless silvered drawn triple; v 9 globular colourless gilt drawn; w 6 globular colourless gilt drawn double; x 1 cylinder colourless gilt drawn beaded. Scatter on chest. Three drawn glass beads lost (not illustrated).

3 Silver taper finger ring, double line border containing row of nicks, faint animal head terminal. Diam 1.8cm. At left hand.

4 Knife. Original L 12.4cm.

5 Gilt bronze saucer brooch, central stud, concentric circle decoration, ?with row of arc stamps, rim nearly vertical. Diam 5.3cm. (Lost, drawn from index card.) Right shoulder.

6 Gilt bronze saucer brooch, central stud, concentric circle decoration. Diam 5.1cm. (Lost, drawn from index card.) Left shoulder.

7 Iron wire ring fragment with coiled 'bezel'. L 2.5cm. Mid left chest, probably on necklace.

8 Bronze conical tube contains mineral-preserved organic material (pp 64, 73). ?Decorative diagonal marks each side of split. L 7.3cm. 7 and 8 together inside left elbow.

9 Iron latch lifter, one end looped, two prongs at the other. L 12.6cm. Inside left elbow.

10 Perforated bronze coin, worn thin. (Lost, drawn from index card.) Diam 1.5cm. With beads 1A.

Grave 40 (Figs 26, 46)

Male juvenile 10–11. 357°

Depth 3ft 2in (0.97m)

Grave edge visible at foot only.

1 Spearhead. L 14cm. Left of skull.

Grave 41 (Figs 26, 46)

Female young adult. 349°

Depth 2ft 9in (0.84m) skull fallen to right, left arm bent at acute angle across chest, right forearm across waist, left shin over right.

1 Bead: Amber 1 small wedge-shaped. On lower jaw.

2 Fragment of bronze pin. L 1.5cm. Another fragment L 1cm (lost, not illustrated). Left of jaw.

3 Iron pin fragment. L 2.2cm. Under left skull.

Grave 42 (Fig 46)

Juvenile 7-8. 358°

3ft 6in × 1ft 2in × 2ft 9in (1.07m × 0.36m × 0.84m)

Fragmentary bones. No finds.

Grave 43 (Fig 46)

?Female young adult. 347°

Depth 2ft 7in (0.79m)

Skull right, left arm slightly bent. No finds.

Grave 44 (Figs 26, 46)

Female juvenile 5–6. 349°

4ft × 1ft 9in × 2ft 5in (1.22m × 0.53m × 0.74m)

Skull right, left forearm across waist, both legs slightly bent to right with left shin over right.

1 Perforated bronze coin, earlier perforation broken. Inside right humerus.

Grave 45 (Figs 26, 46)

Female adult. 359°

c 5ft 6in × 1ft 10in × 2ft 8in (1.68m × 0.56m × 0.81m)

Skull right, right forearm across waist, left arm slightly bent, both legs slightly bent to right with left shin over right.

1 Bronze disc brooch (pl Ve) with bossed central part, ring-and-dot stamp centre surrounded by six more stamps. Diam 3.7cm. On top left femur.

2 Bronze disc brooch, as 1. Diam 3.7cm. Under left femur.

3 Bone needle fragments. L 4cm and 1.9cm. Above beads.

4 A Beads: Amber; a 1 very small roughly-shaped; b 10 small roughly-shaped; c 1 roughly-shaped; d 4 wedge-shaped; e 1 small flat, lengthwise perforation.

B Glass: f 1 globular colourless gilt drawn triple.

Bronze openwork swastika brooch. (Identified by Glynis Edwards and Mike Heyworth. (Not illustrated.) Above left femur and between femurs. One amber bead lost (not illustrated).

Grave 46 (Figs 26, 47)

Female juvenile 11–12. 345°

Depth 2ft 7in (0.79m)

On left side, both arms and left leg slightly bent.

1 Bronze saucer brooch (pl IVb), debased zoomorphic design with four-ring border. A hole visible in the centre from the back appears to be filled with lead-tin solder (identified by Glynis Edwards and Mike Heyworth). Diam 4.5cm. Above 2.

2 Bronze saucer brooch. Face covered with textile remains, radiograph shows cross centre with boss and border of chip-carved wavy lines. Diam 4.8cm. Upside down under 1 at left pelvis.

Grave 47 (Figs 27, 47)

Male adult. 343°

Depth 2ft 7in (0.79m)

Right side of skeleton destroyed by drain, left arm slightly bent.

1 a Shield boss, top missing, straight dome, slightly incurved waist, four rivets, one bronze disc head remaining. Ht 6.5cm, diam c 13.6cm.

b Grip fragments, nicked edge decoration, part missing. L 4.2cm and 6.8cm+.

c Remains of two thin iron dires with raised dot border, central bronze disc fixed by a rivet with conical head. Diam 6cm. Inside left elbow.

d Iron disc with raised dot border, radiograph shows central bronze disc fixed by a rivet. Diam c 6cm. Outside left shoulder.

e Iron disc-headed stud. Diam 5cm. (Lost, drawn from index card.) Above left shoulder.

2 Spearhead, angular, long tapering blade. Mineral-preserved wood probably Corylus sp (hazel, p 73). L 44.7cm. On left chest.

Grave 48 (Figs 27, 47)

Female 25–30. 336°

Grave edge visible at foot. Depth 3ft 6in (1.07m)

Prone burial, both legs bent, the right tibia crossing the left femur with foot rising c 18cm above grave floor, just below the left hand.

1 Bronze tongue-shaped strap end, double plate, perforation at squared end, rounded ends turned in. L 4.5cm. Outside right pelvis.

2 Knife fragment. Radiograph shows three probable longitudinal grooves. L 5.8cm. Outside right femur.

3 Bronze openwork swastika brooch. (Lost, drawn from
Grave 49 (Fig 47)
Juvenile 10. 346°
c 3ft 6in x 2ft x 3ft 6in (c 1.07m x 0.61m x 1.07m)
Skull fallen forward, both arms bent, both legs bent acutely to right. No finds.

Grave 50 (Fig 47)
Juvenile 11–12. 338°
c 4ft 4in x 1ft 4in x 3ft 4in (c 1.32m x 0.41m x 1.02m) On right side, right arm bent with hand on right shoulder, left forearm across chest, right leg bent, left leg bent at acute angle. No finds.

Grave 51 (Figs 28, 47)
Male 25–40. 349°
6ft 3in x 2ft x 3ft 6in (1.91m x 0.61m x 1.09m)
On right side, left arm bent, hand on pelvis, left shin crossed over right.
1 Spearhead, long, narrow leaf-shaped blade. Mineral-preserved wood Corylus sp (hazel, p. 73). L 48cm. Left shoulder, tip 15cm above top of skull.
2 Knife fragment. L 7.5cm. Left ribs.
3 a Shield boss, wide button top, concave dome, tall waist, wide flange, four disc-headed rivets. Mineral-preserved wood probably Salix sp (willow) or Populus sp (poplar, p 000). Ht 11.5cm, diam 15.5cm. Traces of grip remaining. b S-shaped iron appliqué, bronze washers in centres. L 6.3cm. Top left pelvis.

Grave 52 (Fig 47)
Juvenile 7–2. 345°
c 3ft 7in x 1ft 2in x 3ft 2in (c 1.09m x 0.36m x 0.97m)
Skull right and other fragments. No finds.

Grave 53 (Figs 28, 47)
Female adult. 360°
c 5ft 10in x 2ft 6in x 2ft 10in (c 1.78m x 0.76m x 0.86m)
Skull down to right, left arm slightly bent.
1 Beads: Amber: a 1 very roughly-shaped; b 1 wedge-shaped. a to right of neck between scapula and clavicle, b between right humerus and ribs.
2 Knife fragment. L 5.6cm.

Grave 54 (Fig 47)
?Female 25–35. 337°
Outline visible at head. Depth 2ft 4.5in (0.72m)
Skull slightly right, right arm slightly bent with hand in pelvis, left arm extended sideways. No finds.

Grave 55 (Figs 28, 47)
Female adult. 348°
Depth 2ft 10in (0.86m)
On right side, both arms slightly bent with hands together, both legs slightly bent.
1 Gilt bronze applied saucer brooch (pl 4Ve), central hole which probably held a stud, surrounded by radiating lines in pairs between beaded borders. Four triangles containing masks divide the rest of the field, the four intervening panels varying in size and design but each containing a human-headed animal with hind leg and foreleg. The repoussé sheet is applied on a cast saucer brooch. Remains of iron pin. Diam 6cm. At neck on right.
2 Gilt bronze applied saucer brooch, as 1, but with a loose, disc-headed iron stud with a ribbed bronze collar which was fitted in the centre. Diam 6cm. At neck.
3 Beads: Amber: a 1 very small roughly-shaped; b 6 small roughly-shaped; c 1 roughly-shaped; d 3 wedge-shaped. Glass: e 1 globular very light green translucent drawn triple; f 1 globular colourless drawn double; g 1 globular colourless silvered drawn triple; h 1 globular colourless gilt drawn; i 2 globular colourless gilt drawn double. Chest area.
4 Knife fragment. L 4.9cm. Inside top left femur.

Grave 56 (Figs 28, 47)
Male juvenile 11–12. 360°
c 5ft 7in x 1ft 9in x 3ft 3in (1.78m x 0.66m x 1.09m) On left side, right arm slightly bent with hand on pelvis. 1 Spearhead, angular blade, a lengthwise depression on each left side of the blade, radiograph shows a rivet across socket and 2 inlaid bands near end of socket. Mineral-preserved wood Corylus sp (hazel, p 73). L 23.3cm. Right of skull, tip 15cm higher than socket end.

Grave 57 (Figs 29, 47)
Female young adult. 354°
c 6ft x 2ft 2in x 3ft 3in (1.83m x 0.66m x 0.99m) ?Prone. Skull vertical, right arm bent with hand at left pelvis, right leg bent, femur under left femur.
1 Beads: Amber: a 2 very small roughly-shaped (not illustrated); b 13 small roughly-shaped; c 1 small wedge-shaped; d 4 wedge-shaped; e 2 flat; f 4 small flat, lengthwise perforation; g 1 small triangular section; Glass: h 4 globular colourless drawn double; i 7 globular colourless drawn double; j 7 globular colourless drawn triple; k 1 globular colourless silvered drawn double; l 1 globular colourless silvered back curved; m 31 oval colourless silvered drawn. Above two are 2 inlaid bands on long horizontal plate, 2 inlaid bands on short horizontal plate; 2 beads on right shoulder. Outside of sacrificial socket, 2 small roughly-shaped (?) ornaments on right shoulder.
2 Brilliant iron pin. Diam 6cm. At neck.
3 Gilt bronze applied saucer brooch, as 1, but with a loose, disc-headed iron stud with a ribbed bronze collar which was fitted in the centre. Diam 6cm. At neck.
4 Bronze openwork swastika brooch, pin catch mend riveted to old stump. Diam 4.8cm. Left side of skull.
5 Bronze cone with perforation at top. L 6.7cm.
6 Bronze ear-scoop, transverse grooves. L 6cm.
7 Bronze ear-scoop, transverse grooves. L 6cm.
8 Bronze pin, L 6.8cm and 3.4cm.
9 Bronze pin, transverse grooves. L 7.7cm.
10 Bronze slip-knot ring. Diam 2.1cm.
5–3 pendant from 10. Right shoulder.

Grave 58 (Figs 29, 48)
Female juvenile 7–8. 347°
c 4ft 5in x 2ft 4in x 3ft 6in (1.35m x 0.71m x 1.07m) Fragmentary, right forearm across waist.
1 Iron annular brooch. Diam 3.4cm. Right shoulder.
2 Bronze penannular brooch, ends turned back and decorated (?) as animal heads. Diam 3.5cm. Under top left skull.
3 Beads: A Amber: a 1 very small roughly-shaped (not illustrated); b 2 small roughly-shaped; c 1 wedge-shaped
6ft x 2ft x 3ft 6in (1.83m x 0.61m x 1.07m)
Left arm slightly bent, left knee bent up and out, right leg straight towards left with shin over left foot.
2. Bronze coin, worn, two perforations. Diam 2.3cm.
3. Bronze coin, worn, perforated. Diam 2.2cm. 2 and 3 together in middle top chest.

Grave 76 (Figs 33, 49)
Female adult. 342°
6ft 3in x 2ft (1.91m x 0.61m)
Some bones disturbed.
1. Beads: Amber, a 10 small roughly-shaped; b 3 wedge-shaped. At neck.
2. Two iron strips rusted together. L 7.2cm.

Grave 77 (Figs 34, 49)
Male adult. 342°
6ft 9in x 1ft 10in (2.06m x 0.56m)
Some bones displaced, both arms bent with hands mid chest.
2. A Shield boss, wide button top, concave dome, tall waist, wide flange with four disc-headed rivets. Ht 12cm, diam 15cm. Left chest.
3. Grip, flat, widening at the ends. (Part missing.) L 12.2cm.
4. Two iron disc-headed studs with bronze spiral strip connecting them. L 6.4cm. c 15cm to left of boss.

Grave 78 (Figs 34, 49)
?Male adult. 348°
6ft 1ft 9in (1.83m x 0.53m)
Skull left, both arms sharply bent with right wrist over left at chin, left knee bent over right knee.
1. Small pot, wide mouth, flattened base, black fabric, sandy, buff surfaces. Ht 8.3cm, diam mouth 9.7cm.

Grave 79 (Figs 34, 49)
Male adolescent. 353°
Depth 3ft. (0.91m)
Fragmentary, right arm slightly bent.
A bone (horse distal humerus) and smaller animal bone on left shoulder.
1. Spearhead, angular. L 26.5cm. Left of skull.

Grave 80 (Figs 34, 49)
Female adult. 346°
Skeletion disturbed, left arm and right leg slightly bent.

Grave 81 (Figs 34, 35, 50)
Male adult. 330°
Skull left, left ankle crossed over right.
1. Spearhead, leaf-shaped, rivet in socket. L 30.5cm.
2. Spearhead, leaf-shaped blade, heavy. L 24cm. 1 and 2 left of skull, c 15cm above floor level.
3. Knife, straight back, curved cutting edge. L 15cm. Inside and parallel to left radius.
4. Bronze-bound bucket, four vertical strips fastened to some remaining wooden staves by bronze staples. Four hoops, 2.2cm wide, with U-shaped rim at top and occa-

Grave 82 (Figs 35, 50)
Female adolescent. 354°
On right side, left arm and legs bent.
1. Bronze penannular brooch, terminals folded back, pin folded over ring, transverse scoring on top. Diam 3.1cm. Touching right side of skull.
2. Iron penannular brooch, one returned terminal remaining (sketch from radiograph). Diam 3.6cm. At right hand.
3. Rectangular bronze plate (Pl Vb), perforation in each corner, triple circle in middle with four double circles in each corner, containing dot and annulet stamps. (Lost, drawn from photograph.) 3.3cm x 2.5cm. Behind knees.

Grave 83 (Figs 35, 50)
?Female adult. 347°
Skull left, right arm slightly bent, left arm straight and away from body, legs slightly to left.
1. Bronze square-headed small long brooch, spatiulate foot, keeled bow with moulding each side, dot-stamped border on head and foot. L 6.2cm. On right shoulder.
2. Bronze square-headed small long brooch, as 1, except that borders are arc stamps. L 6.2cm. Under chin.
3. Beads: Amber, a 7 small roughly-shaped; b 1 wedge-shaped; c 1 flat; d 1 flat triangular.
Glass: e 1 annular dark blue translucent. At left shoulder. One drawn double glass bead lost (not illustrated).
5. Two iron shafts, each with curled-over ends, one linking with two rings, the other rusted to a looped tab. L 8.4cm. Under mid left femur.

Grave 84 (Figs 35, 50)
?Male adult. 342°
Depth 3ft 3in (0.99m)
Skull right, left arm bent with hand on left elbow.
1. Iron buckle loop and tongue, double bronze rectangular plate with serrated end and fastened by two rivets. Possible remains of leather and textile (p 73). L 6.5cm. Right pelvis.

Grave 85 (Figs 36, 50)
?Male juvenile. 711-12. 345°
C 5ft x 2ft 3in x 3ft (1.52m x 0.74m x 0.91m)
Skull right, left arm bent with hand on chest, both legs bent to left.

Grave 86 (Fig 50)
?Female adult. 15°
Fragmentary, legs bent to right.
No finds.

Grave 87 (Fig 50)
Juvenile 72-3. 358°
Depth 2ft 1in (0.63m)
Fragmentary. ?On left side with legs slightly bent. No finds.
Grave 88
Juvenile ?2–3. 360°
Fragments of legs.
No finds.

Grave 89 (Figs 36, 50)
Female adult. 4°
c 5ft 3in x 2ft x 2ft 3in (c 1.6m x 0.61m x 0.69m)
Torsos disturbed.
1 Bronze disc brooch with five double ring-and-dot stamps. Diam 4.3cm. Left shoulder.
2 Tinned bronze disc brooch, as 1. Diam 4.1cm. Between top of femurs.
3 Beads: Amber: a 4 small roughly-shaped; b 3 roughly-shaped. At neck.
4 Iron buckle loop and tongue, double bronze plate, two rivets at one end, one rivet at the other. L 10cm.
Right waist.
5 Iron pin fragment. L 1.9cm. With 3.
6 Bronze Roman coin. Diam 1.8cm. With 2.

Grave 90
Adult. 340°
Depth 2ft 4in (0.71m)
Fragments of bone.
No finds.

Grave 91 (Figs 36, 51)
Male young adult. 348°
7ft 3in x 2ft x 3in (2.21m x 0.61m)
Skull left.
1 Spearhead, angular. Original L 24.4cm. Left of skull.

Grave 92 (Figs 36, 51)
Male 25–35. 354°
6ft 3in x 3ft x 3ft 2in (1.91m x 0.91m x 0.96m)
Body lying diagonally in grave, arms bent with hands in pelvis, left shin crossed over right.
1 a Shield boss, button top, convex dome, wide flange. Five disc-headed rivets. Ht 8.5cm, diam 17.2cm.
b Grip, rectangular. L 12.7cm.
c Two iron disc-headed rivets. Diam 3.2cm. Mineral-preserved wood Salix sp (willow) or Populus sp (poplar, p 73).
Boss on side near edge of grave by lower left leg, the two disc-headed studs c 15cm away from boss.
2 Knife, angled back, curved cutting edge, type 3. L 11.1cm.
Right chest.
3 Spearhead, angular, parallel-sided blade, two rivets in socket. L 38.7cm.
m Removed earlier, probably vertical at waist.

Grave 93 (Figs 37, 51)
Male young adult. 3°
Skull right.
1 Spearhead, leaf-shaped blade, radiograph shows rivet across the socket. Mineral-preserved wood (p 73).
L 20.2cm.

Grave 94 (Figs 37, 51)
Male adult. 355°
Width 2ft 6in (0.76m)
Skull right, left arm slightly bent, right arm sharply bent with hand under boss.
1 a Shield boss, top broken – probably a button top, straight dome, sharp carination, wide flange, four disc-headed rivets. Ht 8.5cm, diam 15.3cm.
b Grip, strap, widening at ends. Mineral-preserved wood

Tilia sp (lime, p 73). L 10.5cm. On chest.
2 Spearhead, angular, rivet in socket. Mineral-preserved wood probably Salix sp (willow) or Populus sp (poplar, p 73). L 25.2cm. Outside right humerus.
3 Iron buckle loop and tongue, double bronze plate with one rivet. Remains of leather belt (p 73). L 3.4cm. Under boss.

Grave 95 (Figs 37, 51)
Male adult. 21°
Depth 2ft 2in (0.66m)
Skull right, right arm slightly bent, left arm bent with hand right side of chest. Lower legs missing.
1 a Shield boss, incurved, conical dome with remains of button top, deep waist. Narrow flange with four rivets with small disc heads. Wood 0.4cm thick. Ht 10cm, diam 12cm.
On left elbow.
b Iron disc-headed rivet. Diam 2.6cm. About 7.5cm from boss.
2 Spearhead, angular, split socket. L 28.4cm. Right of skull.

Grave 96 (Figs 37, 51)
Male adult. 353°
6ft 6in x 2ft x 2ft 6in (1.98m x 0.61m x 0.76m)
Right arm slightly bent, left arm bent across waist.
1 a Spearhead, angular, rivet in socket. Mineral-preserved wood Corylus sp (hazel, p 74). L 37.5cm. Left of skull.
b Ferrule. L 5.3cm. Outside right humerus.
2 Iron strap fragment with rivet in middle. L 3.5cm.
3 ?Nail fragment. L 2.2cm. (Lost, drawn from index card.)
With 2, 15cm above bones of left hand.

Grave 97 (Figs 38, 51)
Female adult. 350°
Width 2ft, depth 3ft 2in (width 0.61m, depth 0.96m)
Skull fallen to right, both arms bent with hands mid waist.
1 Beads: Amber: a 23 small roughly-shaped; b 4 roughly-shaped; c 1 wedge-shaped; d 2 small flat, lengthwise perforation.
Between skull and ribs.
2 Bronze disc brooch (PI Vb), central hole surrounded by three concentric rings. Diam 3.8cm.
3 Bronze disc brooch (PI Vc), central dot, four ring-and-dot stamps, engraved circle. Diam 3.7cm. Both brooches under skull.

Grave 98 (Figs 38, 51)
Female adult. 353°
Width 2ft, depth 3ft 2in (width 0.61m, depth 0.96m)
On right side, left arm bent to waist, left femur crossed over right.
1 Saucer brooch, ?possibly an applied plate, shallow rim. Five-pointed star noted on index card suggests the pattern. Diam 4.3cm. (Lost, drawn from index card and photograph.) Under right chin.
2 Beads: Amber: a 1 very small roughly-shaped; b 10 small roughly-shaped; c 1 wedge-shaped; d 1 flat; e 4 small flat, lengthwise perforation. Skull area.

Grave 99 (Figs 38, 52)
Male juvenile c 10. 351°
c 4ft 9in x 2ft x c 3ft (c 1.45m x 0.61m x 0.91m)
Skull down to right, both arms bent with hands in pelvis.
1 Spearhead. Mineral-preserved wood Salix sp (willow) or Populus sp (poplar, p 74). L 19.3cm. Left of skull.
2 Knife. L c 12.8cm. Parallel to left forearm.
Grave 100 (Fig 52)
Juvenile 4–5. 360°
5ft 9in × 2ft 4in × 3ft (1.75m × 0.71m × 0.91m)
Disturbed. Skull left and a few other fragments.
No finds.

Grave 101 (Figs 38, 52)
Female young adult. 346°
6ft 9in × 2ft 5in (2.06m × 0.74m)
Disturbed, skull right, right arm bent with hand mid chest.
1 Bronze ring. Diam 1.2cm. Left neck.
2 a A part of an iron buckle loop attached to a plate with a rivet. Textile impression. L 3.8cm.
b Curved iron plate belt mount with three disc-headed rivets. Mineral-preserved horn adhered to the underside (p 74). L 19.8cm, width 2.2cm.
c Belt mount fragment with a disc-headed rivet. ?Wood or bone traces. L 3.2cm. Across right waist.
3 Flat bronze plate, 5cm × 2.3cm, rivet hole in each corner and a slot in the middle. At left waist.

Grave 102 (Fig 38)
Female adult. 348°
Large white stone at foot.
No plan, skull left, hands together on pelvis, feet together.
1 Flat iron fragment. L 1.1cm. Left waist.
2 Beads: Amber: a 16 roughly-shaped; b 1 large roughly-shaped (broken); c 1 4-sided cylinder; d 1 very small triangular section.
Glass e 1 biconical dark blue translucent faceted; f 1 globular very light green translucent drawn; g 2 globular very light green translucent drawn double.
Head and chest, e on chest.
3 Iron buckle loop and tongue, double rectangular bronze plate with two rivets and a perforation. L 5.3cm. Left waist.
4 Remains of two bronze applied brooches with lead backing, three fragments of bronze sheet adhering to lead.
L 2, 1.8 and 1.7cm. Near skull.
5 Decorated bone fragment by left hand. L 1cm.

Grave 103 (Fig 52)
Juvenile 5–6. 338°
Depth 5ft (0.91m)
Disturbed, skull left.
No finds.

Grave 104 (Figs 39, 52)
Male adult. 360°
6ft 6in × 2ft 6in × 3ft 2in (1.73m × 0.76m × 0.97m)
Right arm bent away from body, left arm bent across waist.
1 Spearhead, leaf-shaped. Two rivets in socket. Mineral-preserved wood Corylus sp (hazel), in socket (p 74). L 28.2cm. On face.
2 Curved iron fragment. L 2.1cm. (Lost, drawn from index card.) 6cm above left tibia.

Grave 105 (Figs 39, 52)
Male adult. 333°
Width 2ft 6in, depth 3ft (width 0.76m, depth 0.91m)
Skull slightly right, arms crossed at waist.
1 Spearhead, angular, rivet in socket. L 30.5cm. Left of skull.

Grave 106 (Figs 39, 52)
Male ?adolescent. 6°
Depth 2ft 3in (depth 0.69m)
Skull and leg fragments.
1 Spearhead, angular. L 26.7cm. Right of skull.
2 Knife fragments. L 2.5, 2.6 and 3cm. (Lost, drawn from index card.) Left waist.

Grave 107
349° Small grave. Not excavated.

Cremations

Cremation 1 (Fig 39)
1 Black-burnished, flat pot base, globular. Large grits. Ht 12.5cm+, max diam 19.2cm. Contained burnt bones. Found by mechanical excavator.

Cremation 2 (Fig 39)
Depth 1ft 3in (0.38m)
1 Buff globular pot, blackened in parts. Ring foot, one perforated lug remaining. Sand tempered. Ht 11.5cm, diam foot 9.3cm × 10.4cm.

Cremation 3 (Fig 39)
Depth 1ft (0.31m)
Burnt bone.
1 Sherds of globular pot, black sandy fabric, buff surfaces. Ht 9cm+, max diam 12.5cm.

Cremation 4
Depth 1ft 6in (0.47m)
Burnt bone.
1 One sherd, blackish red, coarse ware. (Not illustrated.)

Unassociated objects (Fig 40)

1 Spearhead, long, ?leaf-shaped blade, two rivets across socket. L 42.3cm. Mineral-preserved wood, probably Corylus sp (hazel), in socket (p 74).
2 Spearhead, leaf-shaped blade, bent. L 34cm. Mineral-preserved wood, probably Corylus sp (hazel), in socket (p 74).
3 Shield boss, button top, concave dome, vertical waist, wide flange, disc-headed rivets. Ht 10.5cm, diam 13.7cm.
Found between graves 77 and 78 (Fig 3).
4 Shield grip fragment with expanded end and disc-headed rivet. L 4.2cm. (Lost, not illustrated.)
5 Shield boss fragment, remains of button top, straight dome only, sharp carination. Ht 7cm+, diam 1.5cm+.
6 Knife. L 12.1cm.
7 Applied brooch, flat back plate, separate catch, gilt bronze repoussé ornamental plate with a star design outer border, a leg and claw visible in at least two outer triangles. Degenerate Style I animal ornament in the inner panel round the central roundel, two animal heads visible. Diam 6.6cm. Found before excavation, probably west of site.
8 Disc brooch. Diam 4.2cm. (Lost, drawn from index card.)
9 Saxon rim sherd, black, everted. Diam 10.4cm.
10 Beads: Amber: a 1 very small roughly-shaped; b 4 small roughly-shaped; c 2 roughly-shaped; d 1 flat.
a, three of b and d from area of graves B7, B8 and B9.
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Figure 8  Cemetery A: finds from graves A1–A5. Scales: A3/1 at 1:1; A1/1–2, A2/1–3, A4/1–3, A5/1–2 at 1:2
Figure 9  Cemetery A: finds from graves A6-A7. Scales: A7/3, 6 at 1:1; A6/1-4, A7/1-2, 4-5, 7 at 1:2
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Figure 13  Cemetery A: finds from graves A13–A14. Scale: 1:2
Figure 14  Cemetery A: finds from graves A15-A17. Scales: A16/1-2, 4, 11-13, A17/1 at 1:1; A15/1, A16/5-10 at 1:2
Figure 15 Cemetery A: finds from graves A18-22 (see also Fig 16). Scales: A18/1-3, 6, A20/1-2 at 1:1; A18/4-5, A20/3-4, A21/1, A22/2-4 at 1:2
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Figure 17  Cemetery A: finds from graves A25–A26, A unassociated objects 1, 3–10. Scales: A unassociated 1, 3 at 1:1; A25/1–3, A26/1, A unassociated 4–10 at 1:2
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Figure 19 Cemetery B: finds from graves B6 contd, B7. Scales: B6/4, 9a–g at 1:1; B6/9h, B7/1–2 at 1:2
Figure 20 Cemetery B: finds from graves B8, B10-B11, B12A, B13-B14. Scales: B8/1-3, B10/3, B12A/1, B13/1, B14/1 at 1:1; B8/4-5, B10/1-2, B11/1-2 at 1:2
Figure 21 Cemetery B: finds from graves B16–B19. Scales: B16/1–4, 7–8 at 1:1; B16/5–6, 9–10, B17/2, B18/1–3, B19/1 at 1:2
Figure 22  Cemetery B: finds from graves B20, B22, B24-B28. Scales: B22/1, B24/1-2, B26/3-4 at 1:1; B20/1-3, B25/1, B26/1-2, B27/1, B28/1 at 1:2
Figure 23  Cemetery B: finds from graves B29–B32. Scales: B29/1–2, 6–7, B30/1, B31/1, B32/1e at 1:1; B29/3–5, 8, B32/1a–d, 2 at 1:2
Figure 24  Cemetery B: finds from graves B33A, B34-B36. Scales: B34/1, 3, B35/2, B36/1-4 at 1:1; B33A/1, B34/2, 5-6, B35/1, 3, B36/5 at 1:2
Figure 25  Cemetery B: finds from graves B38–B39 (see also Fig 26). Scales: B38/1–3, B39/1–2, 4–5 at 1:1; B39/3 at 1:2
Figure 26  Cemetery B: finds from graves B39 contd, B40-41, B44-B46. Scales: B39/7-8, 10; B41/1-2, B44/1, B45/1-4, B46/1-2 at 1:1; B39/6, 9, B40/1, B41/3 at 1:2
Figure 27  Cemetery B: finds from graves B47–B48. Scales: B48/1, 3–10 at 1:1; B47/1–2, B48/2 at 1:2
Figure 28 Cemetery B: finds from graves B51, B53, B55-B56. Scales: B53/1, B55/1-3 at 1:1; B51/1-3, 5, B53/2, B55/4, B56/1 at 1:2
Figure 29  Cemetery B: finds from graves B57–B58, B60–B61. Scales: B57/1, 4, B58/2–4, B61/1–2 at 1:1; B57/2–3, 5, B58/1, B60/1, B61/3–4 at 1:2.
Figure 30  Cemetery B: finds from graves B62, B64–B66. Scales: B62/1–3, B65/1–2, B66/1–4 at 1:1; B64/1–2 at 1:2
Figure 31 Cemetery B: finds from graves B67–B68. Scales: B67/1–3, B68/1–3, 7 at 1:1; B67/4–5, B68/4–6, 8 at 1:2. B68 finds 4–8 in situ. Scale 1:2
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Figure 33  Cemetery B: finds from graves B74 contd, B75-B76. Scales: B74/3, 7, 10, B75/1-3, B76/1 at 1:1; B74/9, B76/2 at 1:2
Figure 34  Cemetery B: finds from graves B77-B81 (see also Fig 35). Scales: B80/1, 3 at 1:1; B77/1-2, B79/1, B80/2, B81/1-3 at 1:2; B78/1 at 1:3
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Figure 44 Cemetery B: plans of graves B1–B11, B12A and B, B13–B15. Scale 1:24
Figure 45 Cemetery B: plans of graves B16–B27, B29–B31. Scale 1:24
Figure 46  Cemetery B: plans of graves B32, B33A and B, B34-B36, B38-B45. Scale 1:24
Figure 47  Cemetery B: plans of graves B46–57. Scale 1:24
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Figure 54 Cemetery A: distribution, male graves, weapons
Figure 55  Cemetery A: distribution, female graves, brooches

Figure 56  Cemetery A: distribution, female graves, beads, bronze cones and squares
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Plate V  Cemetery B: a applied brooch B57/4; b–e disc brooches B97/2, B97/3, B6/1, B45/1; f brooch B12A/1; g–h bronze squares B16/2, B82/3. Scale 1:1
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TWO ANGLO-SAXON CEMETERIES AT
BECKFORD, HEREFORD AND WORCESTER

In April 1954, gravel-digging operations at Beckford, Hereford & Worcester, disturbed human bones, and the discovery of two saucer brooches screened out in the gravel plant established that this was an Anglo-Saxon cemetery. Twenty-four graves were excavated in this cemetery and four years later a second cemetery, 0.5km from the first, with 106 inhumations and 4 cremations was found and excavated.

The grave goods indicate that the two cemeteries were in use from the late 5th to mid 6th century. In both, spears and shields were found in most male graves, and one great square-headed brooch and other brooches and beads in female graves. The absence of swords, and gold and silver suggests this was not an affluent community, and, although there is a range of brooches, they are mostly of fairly local origin. Interestingly, two of the skeletons, which were accompanied by the richer grave goods, showed signs of leprosy.

The evidence reflects an isolated, inbred community at Beckford who had little contact with other Anglo-Saxon communities on the Continent. Its connections were almost exclusively with the West Saxons of the upper Thames Valley, with only a few traces of Anglian influence.